FINAL REPORT

STATE HIGHWAY 92 (AUSTIN TO HOTCHKISS) WETLAND FINDING

PROJECT NUMBER STA 092A-018 (14934)



Prepared for Colorado Department of Transportation Region 3

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1.0 INTRODUCTORY STATEMENT

The following is a Wetland Finding for the Colorado Department of Transportation (CDOT) Project STA 092A-018, State Highway (SH) 92 Austin to Hotchkiss PE Corridor (14934).

URS Corporation (URS) was retained by CDOT to delineate wetlands and prepare this document in compliance with Executive Order 11990 "Protection of Wetlands," 23 CFR 771, 23 CFR 777, and Technical Advisory T6640.8A.

2.0 PROJECT LOCATION AND DESCRIPTION

2.1 Location

The project includes 7.2 miles of SH 92, from Milepost (MP) 7.1 to MP 14.2 in Delta County, Colorado. The western project terminus is just east of 2200 Road in the town of Austin and the eastern terminus is just west of Pleasure Park Road (see Location Map in Appendix A). The project can be found on the Orchard City and Lazear, Colorado 7.5-minute US Geological Survey quadrangles and crosses the following Townships, Ranges, and Sections (from west to east):

- Township 15 South, Range 94 West: Section 6 NW ¹/₄, NW ¹/₄ of the NE ¹/₄
 - Township 14 South, Range 94 West: Section 31 SE ¹/₄ Section 32 W ¹/₂, NE ¹/₄ Section 33 NW ¹/₄ of the NW ¹/₄ Section 28 S ¹/₂ Section 27 S ¹/₂ Section 26 S ¹/₂ Section 35 NE ¹/₄ of the NW ¹/₄
- Township 14 South, Range 93 West: Section 31 NW ¹/₄

The Universal Transverse Mercator (UTM) coordinates of the corridor are 13 354063.655N, 301486.881E (west end), and 13 359416.205N, 335150.424E (east end).

2.2 General Setting

The study area generally parallels the North Fork Gunnison River (see Location Map in Appendix A) and is situated between 5,000 (west end) and 5,300 (east end) feet above mean sea level in the Shale Deserts and Sedimentary Basins Ecoregion (EPA 2008) and in the Interior Deserts Land Resource Region (NRCS 2008). The eight digit hydrologic unit code (HUC) is 14020005 (Lower Gunnison).

The area is dominated by the desert shrub vegetation community with relatively small, somewhat saline wetlands along natural and artificial waterways. Some areas near the town of Austin are irrigated and used for grazing and/or hay production. A small population of the federally endangered clay-loving buckwheat (CLB) (*Eriogonum pelinophilum*) can be found in the Mancos Shale badlands near the middle of the project corridor.

According to the Web Soil Survey (NRCS 2008a), soils in the study area are mostly a mix of Billings, Daiser, Chipeta, and Persayo silty clay loams with a large inclusion of Aquic Natrargids in the Lawhead Gulch area. Billings silty clay loam is mostly found in the Currant Creek and Sulphur Gulch areas and is

usually associated with floodplains and alluvial fans. Daiser silty clay loam is also associated with alluvial fans and is found near the western project terminus. Aquic Natargids are only found at Lawhead Gulch and are often associated with oxbows, playas and alluvial flats. They are formed from impermeable shales and have a maximum calcium carbonate content of 40 percent. Chipeta and Persayo silty clay loams are formed from shale and are common in the very dry upland portions of the study area.

2.3 Roadway Description

Originally designed in 1938, the above described segment of highway is outdated and is being upgraded to bring it up to current Federal Highway Administration (FHWA) and CDOT design safety standards. The existing roadway consists of two 12-foot lanes with no shoulders. Major improvements include providing shoulders and flattening side slopes to provide for a safer typical section. The proposed typical section will consist of two 12-foot travel lanes, 8-foot paved shoulders, and 4:1 (H:V) side slopes (in most areas). The horizontal and vertical alignments would be updated to provide a design speed of 65 miles per hour (mph). Climbing lanes would be added to increase the highway safety and capacity in areas where the grade impedes traffic flow. Acceleration and deceleration lanes will be added to the Payne Siding and Main Street intersections to improve safety and traffic flow.

All drainage culverts within the project limits will be replaced. The culverts will be sized according to current CDOT standards and inlet and outlet protection would be provided. The existing Currant Creek Bridge would be replaced by a three-celled 20-foot by 10-foot concrete box culvert (CBC). Several other irrigation CBC extensions would be designed as part of the improvements.

2.4 Project Segments

Terrain, alignment and adjacent development along the highway corridor can generally be grouped into three distinct sections (see Location Map in Appendix A). Thus, it is convenient to divide the project corridor into the following segments:

Segment 1 begins at the westerly terminus of the project, just east of the 2200 Road intersection and continues east for a distance of 0.36 mile. The general land use in this segment is agricultural on the south side of the roadway and mixed agricultural and residential on the north side. The stationing limits for Segment 1 are 11+00 to 30+00. The alignment through Segment 1 is on a tangent and grades are mildly rolling, less than 2 percent.

Segment 2 begins at the east terminus of Segment 1, project Station 30+00 and continues northeasterly for a distance of 1.02 miles to Station 84+00. The general land use in this segment is a mix of agricultural and residential. The entire horizontal alignment in Segment 2 is made up of a long reverse curve. Grades are moderate through Segment 2; 2 percent or less, except for the easterly quarter mile of the segment where a 6 percent grade exists as the profile climbs at the approach to Segment 3.

Segment 3 constitutes the majority of the project, extending 5.8 miles from Segment 2 to the easterly terminus of the project at Station 390+00. The general land use in this segment is rangeland with a few residence and business along the roadway. The horizontal alignment of the segment meanders gradually. The roadway profile follows rolling grades that generally do not exceed 3 percent, except for grades of up to 6 percent at MP 9.4 (Hog Farm Hill).

3.0 PROJECT ALTERNATIVES

Numerous project alternatives were considered during project planning and design. These are discussed by Segment in the following sections.

3.1 Segment 1

<u>Widening on centerline</u> – This alternative achieves the design objectives for Segment 1. Cut and fill slopes can be contained within the existing right-of-way. Only temporary construction easements may be required to make new connections for access, drainage and irrigation facilities.

<u>Asymmetrical widening</u> – Shifting the centerline north or south in Segment 1 could offer the potential for better maintenance of traffic during construction. Traffic could remain on the current roadway while construction takes place on the opposite side of the roadway. The shifted alignment, however, would entail significant wetland and right-of-way impacts.

The McNeil Ditch (a concrete lined irrigation channel that parallels the highway) would be impacted with asymmetrical widening to the south.

<u>Conclusion</u> – Widening on centerline is the selected alternative. Even though there are trade-offs during construction, the issue is confined to a relatively short segment of the project, and less wetland impacts are expected.

3.2 Segment 2

<u>Full Design Speed Alternative</u> – Under this alternative, the alignment for SH 92 in Segment 2 would be established using a design speed of 65 mph and maximum super elevation rate of 8 percent, as specified in the project scope of work and CDOT design standards. Two primary factors influence the selection of radii for the horizontal curves:

- A. The desire to limit super elevation across the Main Street intersection. A maximum value of 6 percent was selected for the first curve in Segment 2 (Curve 1), resulting in a radius of 2,710 feet.
- B. For the northerly curve beginning at Station 60+00 (Curve 2), a minimum radius is required for the alignment to match the start of Segment 3. A radius of 1,480 feet is appropriate per Standard M-203-11.

While this alternative meets the project design speed, it features several significant drawbacks:

- Most new construction would be substantially off the existing alignment and new right-of-way requirements would be significant. The existing roadway embankment could not be incorporated into the new construction.
- Additional skew is introduced to the Main Street intersection.
- Extensive encroachment would be necessary into the Currant Creek floodplain. This could entail soil conditions that are not conducive to roadway construction and greater impacts to wetlands and other water features.
- At the steep grade near the easterly end of Segment 2, large rock cuts and fill areas would be encountered on the new alignment.

<u>Reduced Design Speed Alternative</u> – In response to the issues raised under the Full Design Speed Alternative, a reduced design speed was considered for Segment 2. While this reduction does not meet the original design speed stated in the scope of work, further evaluation determined that a lower design speed is appropriate for both Segments 1 and 2 because of the number of side road intersections and horizontal alignment constraints contained within these segments.

For the 55 mph design speed in Segment 2, Curve 1 can be constructed with a radius of 1,920 feet and a super elevation rate of 6 percent, maintaining the maximum desirable cross-slope at the Main Street intersection. Curve 2 can be constructed with a radius of 1,140 feet and 7.8 percent super elevation rate.

With the smaller radii, the alignment in Segment 2 can be established so as to eliminate or mitigate most of the concerns associated with the Full Design Speed Alternative. Impacts to wetland areas outside the existing corridor would be minimized and the alignment can be optimized to take advantage of the existing roadway embankment and facilitate traffic control during construction.

The one area where the new alignment departs significantly from the existing alignment is along the northerly side of Curve 2. A privately-owned corral would be impacted by the new construction. The study of this issue led to development of the Transitional Design Speed Alternative, discussed below.

Transitional Design Speed Alternative – The solution to mitigating impacts at the corral on the northerly side of Curve 2 involves increasing the radius to 1,375 feet. With such a radius, there are several options for super elevation and accordingly, options for the design speed of Curve 2. A super elevation rate of 7.4 percent allows a design speed of 60 mph, 5 mph more than the alignment to the west, and 5 mph less than Segment 3 to the east. Curve 2 would provide a convenient transition between design speeds in the east and west legs of the project.

A further refinement to Curve 1 was made, matching the 50 mph design speed in Segment 1. At this speed, a radius of 2,040 feet can be used and the roadway cross-slope at Main Street intersection can be reduced to 5 percent.

The Transitional Design Speed Alternative is a variation of the Reduced Design Speed Alternative, modified to reduce impacts at the corral and Dry Creek and provide a transition in project design speeds.

Three wetland areas would be impacted under any widening alternative in Segment 2. The first is located on both sides of the roadway at Station 31+00 and is associated with an irrigation lateral. Drainage culverts run under the roadway. The second is adjacent and hydrologically connected to the first. The third is associated with the North Delta Canal crossing at Station 40+00. Because these wetlands straddle the roadway, there is no clear advantage associated with any of the alternatives in terms of reducing impacts. In addition, the total impacted area is relatively small and thus, not a significant factor in the alternative selection.

<u>Conclusion</u> – The Transitional Design Speed Alternative represents the highest level of refinement of all the alternatives. It is the best option for minimizing impacts and accommodating appropriate design speeds in Segment 2.

3.3 Segment 3

The initial approach for setting an alignment in Segment 3 was based on adding all of the new pavement width to the south side of the existing roadway. Research conducted during the preliminary design phase provided new information and constraints concerning the presence of CLB plants along the highway corridor. In the roadway section east of Payne Siding, several areas of CLB designated habitat were identified as well as the presence of living plants. In addition, several recorded conservation easements were identified along the south right-of-way line in this same vicinity.

Adjustments were made to the initial alignment, giving priority to avoidance of the CLB, its designated habitat areas and the conservation easements. These adjustments were generally achieved through steeper side slopes and or minor alignment shifts along the roadway at the following locations:

- Station 199+00 to 232+00 Herrick Conservation Easement (south side)
- Station 202+00 to 208+00 CLB habitat Federal designation (south side)
- Station 212+00 to 216+00 CLB plants (south side)
- Station 247+00 to 261+00 CLB habitat Federal designation (south side)
- Station 249+00 to 291+00 Shea Conservation Easement (south side)
- Station 251+00 to 252+00 CLB plants (north side)

- Station 259+00 to 291+00 Shea Conservation Easement (north side & south side)
- Station 291+00 to 390+00 BLM National Conservation Area (south side)

Multiple wetland areas are located in and surrounding Lawhead Gulch along the alignment in Segment 3.

- Station 255+00, Oasis Ditch Crossing Very minor impacts will be necessary to reconstruct and extend the pipe crossing. Adjustments in the roadway alignment to avoid impacts on one side of the roadway would be offset by impacts on the opposite side.
- Station 259+00 to 271+00, North Side Avoidance of these wetlands on the north side of the roadway would entail encroachment into the CLB designated habitat on the south side of SH 92 at Station 260+00.
- Station 276+00 to 278+00 These wetlands are on opposite sides of the roadway. Adjustments in the roadway alignment to avoid impacts on one side of the roadway would be offset by impacts on the opposite side.

<u>Conclusion</u> – With refinements to the initial alignment, impacts to the CLB and its designated habitat will be avoided. These refinements come at the expense of several tradeoffs, including impacting additional parcels of land and wetlands.

4.0 METHODS

Andy Herb (senior ecologist for AlpineEco) walked portions of the study area between February 27 and 29, 2008 to delineate wetlands and other water features. The areas visited were based on data previously collected by URS in June/July 2007 and Ms. Paula Durkin (CDOT) in November 2007. The study area is shown on Sheets 1—7 in Appendix A and generally consists of a corridor 7.2 miles long and approximately 200 feet wide along SH 92 west of Austin, Colorado.

All wetlands and other water features in the study area were delineated using methods outlined in the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Corps 2006). This involved a detailed examination of plants, soils, and hydrologic conditions. All wetlands were flagged in the field and surveyed using equipment accurate to 1 or 2 centimeters. Photographs were taken of all wetlands and can be found in Appendix B.

Other water features include perennial, intermittent and ephemeral streams; and irrigation ditches and canals. Although these features are not wetlands, they are important aquatic habitats and often provide wetland hydrology to delineated wetlands. Other relevant ecological information was collected during the fieldwork, including information on land use, wildlife, and noxious weeds.

5.0 WETLAND RESOURCES

A total of 15 wetlands and six other water features were identified in the study area. These features are shown on Sheets 1—7 (Appendix A) and briefly discussed in the following sections. Detailed information for each of the wetlands can be found on the Wetland Determination Data Forms in Appendix C.

5.1 Wetlands

A total of 1.34 acres (58,450 square feet (sf)) of wetlands were delineated in the study area (Table 1). All of the wetlands are classified as palustrine emergent (PEM) according to Cowardin, et al. (1979) and can be placed into two distinct groups based on their primary sources of hydrology. These include "natural wetlands" and those associated with irrigation practices.

State Highway 92 Wetland Finding

ID	Classification ¹	Feature Name	Wetland Type	Station	Approx. Milepost/ Side of Road ²	Current Wetland Area (sf)	Permanent Impact Area (sf)	Temporary Impact Area (sf)	Nature of Impacts	Mitigation Type
Irrigat	ion-Related Wetla	nds (West to East)								
1-1	PEM		Irrigation return flow	30+50	7.3/N,S	1,021	506	140	Fill for embankment and installation of new culvert	Bank
1-2	PEM		Irrigation collection	31+50	7.3/N,S	5,578	2,681	529	Fill for embankment and installation of new culverts	Bank
1-3	PEM	North Delta Canal	Irrigation canal fringe	40+00	7.5/N.S	976	315	77	Fill for embankment and installation of new culvert	Bank
1-4	PEM		Irrigation collection	58+50	7.8/W	2,606	0	0	None	Bank
6-3	PEM	Oasis Ditch	Irrigation canal fringe	255+00	11.5/N,S	436	229	51	Fill for embankment and installation of new culvert	Bank
					Subtotal	10,617	3,731	797		
Natura	l Wetlands (West t	to East)								
2-1	PEM	Currant Creek	Creek fringe	64+00	8.0/W,E	1,306	886	34	Fill for embankment, installation of new culvert with riprap	Bank and some on- site plantings
6-6	PEM		Floodplain wetlands	259+50	11.7/N	3,508	3,340	168	Fill for embankment	Bank
6-8	PEM		Floodplain wetlands	265+00	11.8/S	12,734	6,683	2,955	Fill for embankment and installation of new culvert	Bank
6-9	PEM		Floodplain wetlands	266+00	11.8/N	6,462	3,766	814	Fill for embankment and installation of new culvert	Bank

Table 1: Summary of Wetlands



State Highway 92 Wetland Finding

ID	Classification ¹	Feature Name	Wetland Type	Station	Approx. Milepost/ Side of Road ²	Current Wetland Area (sf)	Permanent Impact Area (sf)	Temporary Impact Area (sf)	Nature of Impacts	Mitigation Type
6-4	PEM	Lawhead Gulch Tributary	Floodplain wetlands	270+00	11.9/N	6,403	5,398	506	Fill for embankment and installation of new culvert	Bank
6-7	PEM		Floodplain wetlands	272+50	12.0/S	328	0	0	None	Bank
6-2	PEM	Lawhead Gulch	Floodplain wetlands	274+00	12.0/N,S	1,511	1,205	55	Fill for embankment and installation of new culvert	Bank
6-5	PEM		Floodplain wetlands	278+00	12.1/N,S	12,688	4,395	2,453	Fill for embankment	Bank
6-1	PEM		Floodplain wetlands	284+00	12.2/N,S	2,548	862	377	Fill for embankment and installation of new culvert	Bank
8-1	PEM	Sulphur Gulch	Creek fringe	370+00	13.7,N,S	345	59	0	Fill for embankment and installation of new culvert	Bank
¹ Based on Cowardin, et al. (1979)					Subtotal	47,833	26,594	7,362		
² Side o	f Road: N=north, S=so	uth, E=east, W=west			TOTAL	58,450	30,325	8,159		

5.1.1 Natural Wetlands

A total of 10 wetlands (some with multiple parts), encompassing 1.10 acres (47,833 sf) or 82 percent of the total wetland acreage in the study area, are associated with natural waterways and their floodplains. This includes wetlands in the vicinity of Currant Creek, Lawhead Gulch (and its tributaries), and Sulphur Gulch. These wetlands consist of either narrow "fringe" wetlands along the banks of the waterways (Currant Creek and Sulphur Gulch), or large wetland complexes on a broad floodplain (Lawhead Gulch and tributaries).

The narrow fringe wetlands along Currant Creek (Wetland 2-1, Sheet 2 in Appendix A) and Sulphur Gulch (Wetland 8-1, Sheet 7 in Appendix A) are generally 2 to 5 feet wide on each side of the channel and dominated by saltgrass (*Distichlis spicata*) with a mix of other species like reed canarygrass (*Phalaris arundinacea*), common threesquare (*Schoenoplectus pungens*), and foxtail barley (*Hordeum jubatum*). The wetland hydrology for these sites is generally provided through capillary action from the flowing channel and/or overbank flooding during runoff events. Soils are clayey with some cobble and gravel, and are mapped as Billings silty clay loam.

The majority of the wetlands in the study area (79.0 percent) are "natural" and are associated with Lawhead Gulch and its tributaries (Wetlands 6-1, 6-2, 6-4, 6-5, 6-6, 6-7, 6-8, and 6-9). This area can be found on Sheets 4, 5 and 6 in Appendix A and consists of a large wetland complex associated with a large, irregular floodplain. The wetlands in this area have a very high salt content and include small salt flats that are nearly devoid of vegetation. There are substantial salt deposits on the ground surface that appear to be the result of the evaporation of groundwater that is brought to the surface via capillary action. The dominant vegetation in these areas is saltgrass, with seablight (*Suaeda* spp.) around and in the most alkaline areas and pockets of other salt-tolerant plants like cosmopolitan bulrush (*Schoenoplectus maritimus*), scratchgrass (*Muhlenbergia asperifolia*), and Nuttall's alkaligrass (*Puccinellia airoides*). Wetland hydrology for these sites is generally a result of high groundwater with supplemental surface water from overbank flooding. Soils in this area are clayey and some of the most saline areas do not exhibit hydric soil indicators due to high pH. The mapped soil type is Aquic Natrargids.

Delineation of wetlands associated with Lawhead Gulch was somewhat difficult since saltgrass (which is facultative and often present in non-wetlands) was present in most roadside areas. Generally, wetlands with a dense and robust saltgrass-dominated community that contained scattered other facultative or wetter plants were included (assuming hydric soils and hydrology were present). If stands of saltgrass were mixed with weedy or more upland species like Russian knapweed (*Acroptilon repens*), prickly lettuce (*Lactuca serriola*), cheatgrass (*Bromus tectorum*), Canada thistle (*Cirsium arvense*), or four-wing saltbush (*Atriplex canescens*), they were generally excluded.

5.1.2 Irrigation-Related Wetlands

A total of five wetlands, encompassing 0.24 acre or 18 percent of the total wetland acreage in the study area, are associated with irrigation practices. This includes narrow fringe wetlands along the North Delta Canal (Sheet 1 in Appendix A) and the Oasis Ditch (Sheet 4 in Appendix A), as well as several larger wetlands associated with unnamed ditches and irrigated fields. The largest irrigation-related wetlands involve the inadvertent collection of irrigation overflow and/or return flow in the right-of-way (Wetlands 1-1 and 1-2 on Sheet 1 in Appendix A). One large wetland is a result of a breached ditch (Wetland 1-4 on Sheet 2 in Appendix A).

The narrow fringe irrigation-related wetlands include Wetlands 1-3 (North Delta Canal) and 6-3 (Oasis Canal), which can be found on Sheets 1 and 5, respectively. They are generally dominated by dense stands of reed canarygrass, with pockets of saltgrass and other grasses and forbs. These wetlands are mostly 3 to 5 feet wide (on both sides of the waterway) and get their wetland hydrology via capillary

action from the channel itself. Soils are generally clayey, but somewhat disturbed as a result of regular dredging. They are mapped as Daiser silty clay loam.

The larger irrigation-related wetlands are mostly found at the west end of the study area, on Sheets 1 and 2 (Appendix A) and include Wetlands 1-1, 1-2, and 1-4. These wetlands are mostly dominated by rabbitfoot grass (*Polypogon monspeliensis*), Emory's sedge (*Carex emoryi*), creeping spikerush (*Eleocharis palustris*), and reed canarygrass, with numerous other grasses and forbs adapted to seasonal inundation. Most of these wetlands have pockets of weedy tree species along their perimeters, mostly Russian olive (*Elaeagnus angustifolia*) and saltcedar (*Tamarix ramosissima*). These wetlands get their hydrology from the collection of irrigation water and generally contain clayey soils (mapped as Daiser and Billings silty clay loam).

5.1.3 Wetland Functions

An assessment of the functions and values of wetlands within the study area was completed using a modified version of the Montana Department of Transportation Wetland Functional Assessment (Montana) Method (Berglund 1999). This method is currently being revised by CDOT for use in Colorado and involves the completion of a five page data sheet to produce relatively repeatable results.

The functional ratings given to each group of wetlands represents the function or value as it relates to the health and vigor of the ecosystem in general. A high rating translates to a wetland function or value that is essential for the continued health of the ecosystem. The ratings are shown in Table 2 and briefly summarized below.

	Irrigatio Wet	n-Related lands	Natural	Wetlands
Wetland Functions and Values	Fringe Wetlands	Overflow/ Collection Wetlands	Fringe Wetlands	Lawhead Gulch Floodplain Wetlands
Federally Listed Species Habitat	L	L	L	L
State Listed Species Habitat	L	L	М	Н
General Wildlife Habitat	L	М	М	Н
General Fish Habitat	N/A	N/A	М	L
Flood Attenuation	L	М	L	М
Short- and Long-Term Water Storage	L	М	L	Н
Sediment/Nutrient/Toxicant Removal and Retention	М	М	М	М
Sediment/Shoreline Stabilization	Н	N/A	Н	N/A
Production Export/Food Chain Support	L	L	М	М
Groundwater Discharge/Recharge	L	L	L	Н
Uniqueness	L	L	L	М
Recreation/Education Potential	L	L	L	М

Table 2: Wetland Functions and Values¹

Ratings based on a modified version of the Montana Method (Berglund 1999); H = high, M = moderate, L = low, N/A = not applicable

The wetlands associated with Lawhead Gulch and its tributaries are the most ecologically functional in the study area. This is generally a result of their large size and perennial water source, combined with evidence of regular ponding. They received a high rating for state-listed species habitat due to a recent

sighting of northern leopard frog (*Rana pipiens*) by a URS employee in summer 2007. The flood attenuation, sediment/nutrient/toxicant removal and retention, and production export/food chain support functions would have been rated high instead of moderate if the wetlands had higher vegetative cover or more structurally diverse vegetation communities.

The fringe wetlands (both irrigation-related and natural) are somewhat less functional than other wetlands in the study area as a result of their extremely small size. They generally provide excellent sediment/shoreline stabilization due to the presence of dense vegetation immediately adjacent to a flowing channel, but do not provide good flood attenuation or water storage. The moderate rating for state-listed species habitat for natural fringe wetlands is a result of the presence of limited suitable habitat and suspected presence of northern leopard frog.

The irrigation-related overflow/collection wetlands were generally rated low to moderate. These wetlands would be rated higher if they were larger and had a year-round water source. The low rating for production export/food chain support is a result of the wetlands generally having a restricted outlet (or no outlet at all).

5.2 Other Water Features

A total of six other water features were identified in the study area. These features support all of the natural wetlands and most of the irrigation-related wetlands identified in the study area. All of the other water features are listed in Table 3.

Waterway (West to East) ¹	ID Number	Туре	Wetlands Present	Milepost (approx.)	Sheet Number (Appendix A)
North Delta Canal	1-3	Irrigation Canal	Yes	7.5	1
Currant Creek	2-1	Perennial Creek	Yes	8.0	2
Dry Creek	2-2	Intermittent Creek	No	8.2	3
Oasis Ditch	6-3	Irrigation Canal	Yes	11.6	4
Lawhead Gulch Tributary	6-4	Perennial Creek	Yes	11.8	5
Sulphur Gulch	8-1	Intermittent Creek	Yes	13.7	7

Table 3: Other Water Features in the Study Area

The mainstem of Lawhead Gulch is not considered an other water feature since it has a mostly vegetated channel (no defined bed and banks) and is included as a wetland.

5.3 Noxious Weeds

A total of 12 state-listed noxious weed species were identified in the study area. Although most of them are not found in wetlands, most are in habitats immediately adjacent to wetlands or in other moist areas. The management of these species should be considered during construction activities to minimize the potential for spreading. The species are listed in Table 4 with their rankings (as determined by the State of Colorado and Delta County).

Common Name	Scientific Name	State Rank	Delta County Rank
Russian knapweed	Acroptilon repens	В	Class I
Cheatgrass	Bromus tectorum	С	None
Whitetop	Cardaria draba	В	Class I
Musk thistle	Carduus nutans	В	Class I
Chicory	Chichorium intybus	С	None
Canada thistle	Cirsium arvense	В	Class I
Bull thistle	Cirsium vulgare	В	None
Russian olive	Elaeagnus angustifolia	В	Class II
Redstem filaree	Erodium cicutarium	В	None
Halogeton	Halogeton glomeratus	С	Class II
Yellow toadflax	Linaria vulgaris	В	Class I
Saltcedar	Tamarix ramosissima	В	Class II

Table 4: Noxious Weeds in the Study Area¹

^IState Rank: B=stop continued spread of species; C=provide education, research and biological control to those that wish to manage these species. County Rank: Class I=listed for control on public and private land; Class II=listed for control on public lands only.

The management of noxious weeds for this project will not involve widespread application of herbicide due to the presence of CLB plants, extensive aquatic habitats, and large parcels of adjacent private lands that are infested with noxious weeds. Instead, all noxious weeds in the work area will be mechanically cleared prior to construction (including some of the large saltcedar and Russian olive along Currant Creek), with some spot-spraying in certain locations (if necessary). Native shrubs outside of the footprint of permanent improvements will be avoided whenever possible. After construction, all disturbed areas will be reseeded with a native seed mix containing species adapted to local conditions.

6.0 PROJECT IMPACTS

6.1 Wetland Impacts

Impacts to wetlands were assessed by overlaying the proposed roadway plans with the wetland and other water features maps. The wetlands overlapped by roadway cuts or fills are considered permanently impacted. Temporarily impacted wetlands are those overlapped by a 5-foot buffer around all cut and fill lines. Sheets 1—7 in Appendix A show the areas of impact and Table 1 summarizes the impacts by wetland.

<u>Temporary Impacts</u> – A total of 0.19 acre (8,159 sq ft) of wetlands would be temporarily impacted by project activities. These impacts are associated with construction access needed for the placement of culverts, installing erosion control measures, and other minor and localized activities. These impacts may include cutting or covering vegetation and/or placing temporary fill into a wetland area. These wetlands would experience temporary modification or loss of functions, which should be restored after construction.

<u>Permanent Impacts</u> – There would be 0.70 acre (30,325 sf) of wetlands permanently impacted by the project. Most of these wetlands are located immediately adjacent to the existing roadway embankment in the vicinity of Lawhead Gulch and will be filled as a result of roadway widening. Other permanent impacts will be the result of the installation of new culverts (including the placement of riprap aprons).

6.2 Wildlife and Habitat Issues

6.2.1 Birds

Numerous swallow nests were observed under the Currant Creek Bridge. In order to comply with Migratory Bird Treaty Act, these nests and other potential nesting habitat for migratory birds (primarily woody vegetation), should be removed during the non-nesting season (September 15 to February 15) immediately before construction. If construction will not occur until during the following nesting season, netting can be placed in cleared nesting locations (ideal for bridges) to deter new breeding pairs from building nests.

In addition, a bald eagle was observed foraging in the study area and can be expected to be in the corridor during the winter months. The bald eagle is protected under the Bald and Golden Eagle Protection Act. If bald eagles are observed perching or roosting in or near the study area regularly during construction, protective measures may be required.

6.2.1 Plants

The Great Basin wildrye (*Leymus cinereus*) herbaceous vegetation community has been ranked as "critically imperiled" in the State of Colorado by the Colorado Natural Heritage Program. This community was identified in the study area, just south of Currant Creek on the east side of SH 92 at Station 61+00. It is a very narrow plant community, lining approximately 50 to 100 feet of a small ephemeral drainage that begins at a culvert under SH 92. This area will be under the new roadway embankment and the plants may be salvaged by transplanting. Salvaging would entail using a backhoe or similar equipment to remove as many intact plants from their current locations and placing them further east (outside of the impact area) in a similar position along the same drainage. This activity should be monitored by CDOT environmental personnel.

7.0 WETLAND MITIGATION

7.1 Compensatory Mitigation

The 0.70 acre (30,325 sf) of wetlands permanently impacted as a result of the project will be compensated for by purchasing credits from the WetBank Gunnison at a 1:1 ratio. Information regarding mitigation site selection can be found in Appendix D. In addition, permanent impacts to wetlands associated with Currant Creek will be informally compensated on-site. This compensation will involve relocating wetland vegetation (as appropriate) and willow plantings.

7.2 Other Mitigation Measures

In addition to the wetland avoidance measures discussed in Section 3.0 Project Alternatives, the following mitigation measures will be implemented during construction to minimize impacts to wetlands and other habitats:

- Design widths will be reduced to the extent practical within wetland areas.
- Best Management Practices (BMPs) will be implemented during all phases of construction to reduce impacts from sedimentation and erosion.
- When practical, construction in waterways will be performed during low-flow or dry periods.
- Flowing water will be diverted around active construction areas.

- There will be no equipment staging, storage of materials, use of chemicals (such as soil stabilizers, dust inhibitors, and fertilizers), or equipment refueling within 50 feet of wetlands or other water features.
- No unpermitted discharges will be allowed.
- Prior to construction, orange temporary fence and sediment control measures will be placed at the edge of the work area to protect wetlands located outside the planned area of disturbance.
- The location and design of any temporary crossing of other water features will be approved by the project biologist.
- All areas of temporary wetland impacts that involve vehicular traffic will be covered with a geotextile, straw, and soil prior to use.
- Where appropriate, wetland soils and vegetation will be stripped and used to revegetate disturbed areas. The existing Currant Creek Bridge will be removed as part of this project and the area beneath this structure will be used for placing salvaged wetland soils and willow cuttings.
- The Great Basin wildrye plants located on the east side of SH 92 near Station 61+00 will be salvaged and transplanted, as directed by the project biologist.

8.0 PERMITTING REQUIREMENTS

8.1 Section 404 Permit

Prior to project construction, CDOT must receive authorization under Section 404 of the Clean Water Act for filling wetlands. The authorization is under the authority of the Sacramento District of the US Army Corps of Engineers (Corps) and will consist of a Nationwide Permit No. 23 for Approved Categorical Exclusions. The Project Manager for the Corps is Mr. Steve Moore.

8.2 Other Permitting

The Colorado Division of Wildlife is automatically notified by the Corps for any issues pertaining to Senate Bill (SB) 40. In addition, the application for the Colorado Department of Public Safety stormwater discharge permit for sediment and erosion control will be sent to the Colorado Department of Health and Environment (CDPHE) approximately 10 days prior to the start of construction. To comply with this permit, the project must have and maintain a stormwater management plan (SWMP), which will be kept at the project office and updated as needed. To ensure that the appropriate BMPs are used and properly installed, the project will also be subject to periodic inspections by the regional erosion control audit team (RECAT) until final inspection and release of the permit by CDPHE.

9.0 CONCLUSION

Based upon the above considerations, it is determined that there is no practicable alternative to the proposed construction in wetlands and that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.

10.0 LITERATURE CITED

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Appendix A Location Map and Wetland Maps (Sheets 1—7)







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Appendix B Site Photographs

Appendix B



Photo 1—Wetland 1-1, looking south at wetland data point (1-1W) and culvert under SH 92



Photo 2—Wetland 1-2, looking west at wetland data point (1-2W)



Photo 3—Wetland and Other Water 1-3 (North Delta Canal), looking east at wetland data point (1-3W)





Photo 4—Wetland 1-4, looking south at wetland data point (1-4W)



Photo 5-Wetland and Other Water 2-1 (Currant Creek), looking west



Photo 6-Other Water 2-2 (Dry Creek), looking north





Photo 7—Wetland and Other Water 6-3 (Oasis Ditch), looking north at wetland data point (6-3W)



Photo 8—Wetland 6-6, looking west at wetland data point (6-6W)



Photo 9—Wetland 6-8, looking east at wetland data point (6-8W)



Appendix B

Site Photographs



Photo 10-Wetland 6-9, looking east



Photo 11—Wetland 6-4, looking east





Photo 12-Wetland and Other Water 6-4, looking north



Photo 13-Wetland 6-4, looking west at salt flat area



Photo 14—Wetland 6-2 (Lawhead Gulch), looking north at wetland data point (6-2W)



Photo 15—Wetland 6-5, looking east





Photo 16-Wetland 6-5, looking east at wetland data point (6-5W)



Photo 17—Wetland 6-5, looking west at wetland data point (6-5W3)



Photo 18—Wetland 6-5, looking west at wetland data point (6-5W2)



Appendix B



Photo 19—Wetland 6-1, looking east at data points 6-1U (foreground) and 6-1W3 (near fence line in background)



Photo 20—Wetland 6-1, looking south at wetland data point (6-1W2)



Photo 21—Wetland and Other Water 8-1 (Sulphur Gulch), looking south at SH 92 culvert and wetland data point (8-1W)



Appendix **B**



Photo 22-Wetland and Other Water 8-1 (Sulphur Gulch), looking north at SH 92 culvert



Appendix C Wetland Determination Data Forms
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WEILARD DE I			Sampling Date: 2/27/08
ect/Site: <u>SH 92 Austin</u>	City/Count	ty: <u>Austin/De</u>	State: CO Sampling Point: 1~/W
plicant/Owner: <u>CDOT</u>			Galler Galler
estigator(s): <u>Andy Herb</u>	Section, T	rownship, Range	Signer (%): O
ndform (hillslope, terrace, etc.): Roodfode def	Nison Local reli	ef (concave, con	Nex, none): Original Chapter NAD 83
bregion (LRR):Interior Deserts	Lat: <u></u>	<u>12</u> L	.ong: <u>101 90 75</u> Datum
il Map Unit Name: Daiser Sitty clay lo	aM		NWI classification:
e climatic / hydrologic conditions on the site typical for	this time of year? Yes	No	(If no, explain in Remarks.)
Vegetation, or Hydrology	significantly disturbed	? Are "No	ormal Circumstances" present? Yes No
Vegetation Soil or Hydrology	naturally problematic	? (If need	ded, explain any answers in Remarks.)
Instance OF FINDINGS - Attach site ma	ap showing sampl	ing point loc	cations, transects, important features, etc.
-lydrophytic Vegetation Present? Yes	No Is	the Sampled A	
Hydric Soil Present? Yes V	NO w	rithin a Wetland	? Yes NO
Wetland Hydrology Present?	c stras and	seam to c	any irrigation over / retarn
flows; WL continue to lowest	- portion of	swole; S	ie DP1-24 for upland data
EGETATION	Absolute Domin	ant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.)	% Cover Specie	es? <u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
1			Total Number of Dominant
2			Species Across All Strata: (B)
3			Percent of Dominant Species
4 Total C	over:		That Are OBL, FACW, or FAC: (A/B
Sapling/Shrub Stratum	an an an an Araba an Araba. An an Araba		Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
2			OBL species x 1 =
3			FACW species x 2 =
4			FAC species x 3 =
5 Total	Cover:		FACU species x 4 =
Herb Stratum		(EN IN)	UPL species x 5 =
1. Polypoyon Monspeliensis	$\frac{40}{22}$	TACIO ORI	Column Totals: (A) (B)
2. Phalanz annihracea	$-\frac{20}{1\Gamma}$	OBL OBL	Prevalence Index = B/A =
3. Eleochans palusms	<u> </u>	FACW	Hydrophytic Vegetation Indicators:
4. Mulifenbergin asportoria	5	DBL	Dominance Test is >50%
5. Jypha lationa	<u> </u>	FACW	Prevalence Index is ≤3.0 ¹
6. Polygonum prosicaria	5	FACW	Morphological Adaptations ¹ (Provide supporting
7. Bialis produssa	~ ~ ~	FAC	data in Remarks of on a separate sheet)
8. <u>Instructions Spectrac</u> Total	Cover: 99% 5	0/20	
Woody Vine Stratum	· · · · · · · · · · · · · · · · · · ·		Indicators of hydric soil and wetland hydrology must
1.			be present.
2			Hydrophytic
	A		Vegetation
Tota	Cover:		
% Bare Ground in Herb Stratum	Cover:	0	Present? Yes <u>V</u> No
% Bare Ground in Herb Stratum % Remarks: 0	Cover of Biotic Crust	in botto	Present? Yes V No
% Bare Ground in Herb Stratum 4/ % Remarks: Dense herfaceous Veg	cover of Biotic Crust_ community	in botto - sem	Present? Yes <u>V</u> No -m of Swale - weedy personet u veg + hydro ~ 5' dign
Remarks: Dense hersaccons Veg WL continues on south 1	cover of Biotic Crust_ community community	in botto - sam	Present? Yes V No -M of Swale - Weedy personnet weg + hydro ~ 5' dian
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SOII

Sampling Point: 1-1W

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¹ Type: C=C	oncentration D=Dep	letion. RM=R	educed Matrix.	² Location:	PL=Pore	Lining, F	C=Root C	Channel, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LI	RRs, unless othe	erwise note	d.)		Indica	ators for Problematic Hydric Soils':
Listooo	1/41)		Sandy Red	lox (S5)			1	cm Muck (A9) (LRR C)
	ninodon (A2)		Stripped M	latrix (S6)			2	cm Muck (A10) (LRR B)
	pipedon (A2)		Loamy Mu	ckv Mineral	(F1)		R	educed Vertic (F18)
Black H	an Sulfida (AA)		Loamy Gle	ved Matrix	(F2)		_ R	ed Parent Material (TF2)
Hyarog		.)	V Depleted M	Aatrix (F3)	· -/		⊥ c	ther (Explain in Remarks)
Stratifie		•)	Bedoy De	k Surface (F6)		\top	
1 cm M	UCK (AS) (LRK D)	o (A11)	Depleted [Dark Surface	e (F7)			
Deplete	d Below Dark Sunac	e(ATT)	Depicted i		5 (1 7 / 58)			•
Thick D	Park Surface (A12)		Nerrel De	sicessions (r sle (FO)	5,		³ Indic	ators of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		vernal Po	JIS (F9)			We	atland hydrology must be present.
Sandy	Gleyed Matrix (S4)							
Restrictive	Layer (if present):							
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Denth (ii	nches):				•		Hydrid	Soil Present? Yes No
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HYDROL	DGY					· · · · · · · · · · · · · · · · · · ·		Question indicators (2 or more required)
Wetland H	ydrology Indicators				i			Secondary indicators (2 or more required)
Primary Inc	licators (any one indi	cator is suffic	ient)					Water Marks (B1) (Riverine)
Surfac	e Water (A1)		Salt Cru	st (B11)				Sediment Deposits (B2) (Riverine)
Ounac	e valer $(A1)$		Biotic Cr	ust (B12)				Drift Deposits (B3) (Riverine)
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👱 Satura					IS (DIA)			Drainage Patterns (B10)
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Sedim Drift D Surfac Inunda Water Field Obs Surface W Water Tab Saturation (includes of Describe F	ent Deposits (B2) (Nonrive eposits (B3) (Nonrive e Soil Cracks (B6) ation Visible on Aerial -Stained Leaves (B9) ervations: ater Present? le Present? Present? Present? capillary fringe) Recorded Data (stream	rine) pariverine) erine) Imagery (B7 Yes N Yes N Yes N	Hydroge Oxidized Presend Recent) Other (E O Depth Depth Depth Depth Depth Depth	n Sulfide O I Rhizosphe e of Reduce ron Reducti (xplain in Re (inches): (inches): (inches): al photos, p	dor (C1) eres along ed Iron (C4 ion in Plow ermarks) O revious ins	Living Ro 4) ved Soils	tland Hyc	Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) trology Present? Yes No ble:
Sedim Drift D Surfac Inunda Water Field Obse Surface W Water Tab Saturation (includes c Describe F	ent Deposits (B2) (Nonrive ent Deposits (B2) (Nonrive e Soil Cracks (B6) ation Visible on Aerial -Stained Leaves (B9) ervations: ater Present? le Present? Present? Present? apillary fringe) Recorded Data (stream	rine) pariverine) erine) Imagery (B7 Yes N Yes N m gauge, mo	Hydroge Oxidized Presend Recent) Other (E O Depth Depth Depth Depth	n Sulfide O I Rhizosphe e of Reduce ron Reducti (xplain in Re (inches): (inches): (inches): al photos, p	dor (C1) eres along ed Iron (C4 ion in Plow ermarks) O revious ins	Living Ro 4) ved Soils	tland Hyc), if availa	Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) frology Present? Yes No ble:
Sedim Drift D Surfac Inunda Water Field Obse Surface W Water Tab Saturation (includes c Describe F Remarks:	ent Deposits (B2) (Nonrive ent Deposits (B2) (Nonrive e Soil Cracks (B6) ation Visible on Aerial -Stained Leaves (B9) ervations: ater Present? le Present? Present? Present? apillary fringe) Recorded Data (stream Saturated	rine) porriverine) erine) Imagery (B7 Yes N Yes N Yes N m gauge, mo	Hydroge Oxidized Oxidized Presend Recent Other (E Other (E Depth Depth Depth Depth do Depth	n Sulfide O I Rhizosphe e of Reduce ron Reducti (inches): (inches): (inches): (inches): al photos, p	or (C1) ares along ed Iron (C4) ion in Plow emarks) or revious ins	Living Ro 4) ved Soils	tland Hyc), if availa	Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Arology Present? Yes No ble:
Sedim Drift D Surfac Inunda Water Field Obse Surface W Water Tab Saturation (includes of Describe F	ent Deposits (B2) (Nonrive ent Deposits (B2) (Nonrive eposits (B3) (Nonrive es Soil Cracks (B6) ation Visible on Aerial -Stained Leaves (B9) ervations: ater Present? le Present? Present? Present? Present? Recorded Data (stream Schurfed	rine) pariverine) erine) Imagery (B7 Yes N Yes N Yes N m gauge, mo	Hydroge Oxidized Oxidized Presend Recent I Other (E Other (E Depth Depth Depth Depth intoring well, aeri	n Sulfide O I Rhizosphe e of Reduce ron Reducti (inches): (inches): (inches): al photos, p <i>ppcars 1</i> () C cut	o revious ins bark	Living Ro 4) ved Soils we spections 5 to 1	tland Hyd (C6)), if availa	Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Arology Present? Yes No ble: bl
Sedim Drift D Surface Water Field Obse Surface W Water Tab Saturation (includes c Describe F Remarks: Sanda	ent Deposits (B2) (Nonrive ent Deposits (B2) (Nonrive eposits (B3) (Nonrive es Soil Cracks (B6) ation Visible on Aerial -Stained Leaves (B9) ervations: ater Present? le Present? Present? Present? Present? Present? Schumfied Schumfied	rine) pariverine) erine) Imagery (B7 Yes N Yes N m gauge, mo for Surry		n Sulfide O I Rhizosphe e of Reduce ron Reducti (inches): (inches): (inches): al photos, p Means 1 () C cut	o revious ins barks	Living Ro 4) ved Soils — — — — — — — — — — — — —	tland Hyd (C6)), if availa affan yplan	Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Hrology Present? Yes <u>No</u> ble: <i>over</i> / <i>rctarn Fload - Fload S J - grated by cattle</i>
Sedim Drift D Surface Inunda Water Field Obse Surface W Water Tab Saturation (includes c Describe F Remarks:	ent Deposits (B2) (Nonrive ent Deposits (B2) (Nonrive eposits (B3) (Nonrive es Soil Cracks (B6) ation Visible on Aerial -Stained Leaves (B9) ervations: ater Present? le Present? Present? Present? Present? Present? Crayfish	rine) pariverine) erine) Imagery (B7 Yes N Yes N Yes N m gauge, mo fo Surry		n Sulfide O I Rhizosphe e of Reduce ron Reducti (inches): (inches): (inches): al photos, p means 1 () Cut	o revious ins bark	Living Ro 4) ved Soils we spections 5 to 1	tland Hyd (C6)), if availa	Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Hrology Present? Yes <u>No</u> ble: <i>over/return Flow - Flows Sover/return Flow - Flows</i>
Sedim Drift D Surface Inunda Water Field Obse Surface W Water Tab Saturation (includes of Describe F Remarks:	ent Deposits (B2) (Nonrive ent Deposits (B2) (Nonrive eposits (B3) (Nonrive es Soil Cracks (B6) ation Visible on Aerial -Stained Leaves (B9) ervations: ater Present? le Present? Present? Present? Present? Present? Recorded Data (stream Saturated	rine) pariverine) erine) Imagery (B7 Yes N Yes N Yes N m gauge, mo	Hydroge Oxidized Presend Recent I Other (E Other (E Depth (No Depth	n Sulfide O I Rhizosphe e of Reduce ron Reducti (inches): (inches): (inches): (inches): al photos, p Maans 1 () Cut	o revious ins barks	Living Ro 4) ved Soils — spections 5 to 6	tland Hyd (C6)), if availa	Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Brology Present? Yes <u>No</u> ble: <i>over / return flow - flows Sources of the second by control by</i>
Sedim Drift D Surface Inunda Water Field Obse Surface W Water Tab Saturation (includes of Describe F Remarks:	ent Deposits (B2) (Nonrive ent Deposits (B2) (Nonrive eposits (B3) (Nonrive es Soil Cracks (B6) ation Visible on Aerial -Stained Leaves (B9) ervations: ater Present? le Present? Present? Present? Present? Present? Safurated Safurated	rine) pariverine) erine) Imagery (B7 Yes N Yes N Yes N m gauge, mo	Hydroge Oxidized Presend Recent Other (E NoDepth (NoDepth (No) et (No	n Sulfide O I Rhizosphe e of Reduce ron Reducti ixplain in Re (inches): (inches): (inches): al photos, p <i>mans t</i> () Cut	o barks	Living Ro 4) ved Soils spections 5 to 6	tland Hyd (C6)), if availa	Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) Irology Present? Yes <u>No</u> ble: <i>over / return flaw - flaws Sover / return flaw - flaws</i>

	City/County: Austin/Delta	Sampling Date:/ 8 / 08
Project/Site: <u>SH 92 Austin</u>	State:	CO Sampling Point: V
Applicant/Owner:CDO1	Section Township Range: 6,	55, 94W
nvestigator(s): Andy Herb	Local relief (concave, convex, none):	(mcave
andform (hillslope, terrace, etc.):andform (hillslope, terrace, etc.):	28 440 52 Long 10	7 56 43 Datum: NAD 83
Subregion (LRR): Lat: Lat:		MI classification: PEM
Soil Map Unit Name:		volcin in Remarks)
Are climatic / hydrologic conditions on the site typical for this time of y	ar? Yes <u>V</u> NO (II NO, e	April In Tremands.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are Normal Circum	Islances present: Too
Are Vegetation, Soil, or Hydrology naturally p	oblematic? (If needed, explain	any answers in Remains.
SUMMARY OF FINDINGS – Attach site map showin	sampling point locations, t	ansects, important features, etc.
Hydrophytic Vegetation Present? Yes <u>No</u> Hydric Soil Present? Yes <u>No</u> Wetland Hydrology Present? Yes <u>No</u> Remarks: <i>flowly, the ditch wetland at edge</i> <i>seturn lower Flow'</i> , culverts under St	Is the Sampled Area within a Wetland? of ingrited pasture 92 cmy water to s	Yes No ; collects irrigation ther side of road -
Same veg + hydro		
VEGETATION		
Absolut % Cov	Dominant Indicator Dominance	Prest worksneet:
Tree Stratum (Use scientific names.)	That Are Of	BL, FACW, or FAC: (A)
1	Total Numb	er of Dominant
3	Species Ac	ross All Strata: (B)
4	Percent of I	Dominant Species 50
Total Cover:	That Are O	BL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	Prevalence	e Index worksheet:
1	Total %	6 Cover of: Multiply by:
2	OBL specie	$-\frac{41}{1-1} \times 1 = -\frac{41}{1-1}$
4	FACW spe	cies $10 \times 2 = 15$
5	FAC specie	$\frac{3}{20} \times 3 = \frac{13}{120}$
Total Cover:	FACU spec	cies 30 $x4 = 7$
Herb Stratum 46		$\frac{1}{96}$ (A) $\frac{246}{246}$ (B)
1. Conce empored (General) materia 30	FACIL	2.56
2. Servedanovas risman pro-	UPL Prev	alence Index = $B/A = $
Muhlenbergia asperfolia	FACW Hydrophy	tic Vegetation Indicators:
5 Arrostis alba 5	FACW Domin	hance Test is $>50\%$
6. Apocynum cannabinum 5	- <u>FAC</u> Preva	pelogical Adaptations ¹ (Provide Supporting
7. Typha latifolia 1		ta in Remarks or on a separate sheet)
8	Proble	ematic Hydrophytic Vegetation ¹ (Explain)
Total Cover:	- 48/14	
Woody Vine Stratum	¹ Indicators	of hydric soil and wetland hydrology must
	be presen	t.
Z Total Cover:		/tic
% Bare Ground in Herb Stratum % Cover of Biol	c Crust Present?	Yes No
Remarks: Mixed hereans community	N/ 10ts of festure; Som	e Ulmus pumila + Eleaganus
angustifolia on we permiter (along lensity of A. cannabingan at east	fence line) of Bronnes	north side of rooil);
US Army Corps of Engineers		Arid West – Version 11-1-2006

offie Description: (Describe to the depth needed to document the indicator or confirm the absence or in notest: Color (molst) % Color (molst) % Type: Loc Texture D - 4 (Dyl2-1/2) /27 - - c (ayty) 4 - 15 Invisition % Color (molst) % Texture	iuivalui 3.
Nation Redox Fedures Point Color (molest) % Type Loc Fature P-4 (Vy22/2) /20	
Color (moist) % Color (moist) % Lybe Low Color (Apple) D-4 (1) (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	Remarks
D-4 1042-12 100	cithe clays sat to surf
4-15 1xyt2 3/2 1CD	sitte aligned at a started
Image: Display Displa	Sity Chay! Intering
Type: C=Concentration, D=Depletion, RM=Reduced Matrix ² Location: PL=Pore Lining, RC=Roct Channel, Indicators for Stripped Matrix (S5) Histo Epipedon (A2) Santy Redox (S5) 1 cm Muck (S5) Histo Epipedon (A2) Stripped Matrix (S5) 2 cm Muck (S5) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Red Pater Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Red Pater Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Exp C) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Exp C) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Exp C) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Phydric Soil Pr Sandy Gleyed Matrix (S4) Wetnand Pools (F9) Pindicators of 1 wetland hy Restrictive Layer (If present): Type: Popth (inches): Watrix S4) Type: Depth (inches): Biotic Crust (B11) Second 1 wetland hy Saturation (A3) Aquatic Invertebrates (B13) Drift High Water Table (A2) Hydrice Soils (C6) Saturation (A3) Drift Saturation (A3) Aquatic Invertebrates (B13) Drift Drift Drift Deposits (B3) (Nonriverine)	-
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Channel, indicators for Michael (Applicable to all LRRs, unless otherwise noted.) Indicators in Muck (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sardy Redox (S5) 1 am Muck The Michael (A) Indicators for Michael (A) Histosol (A2) Stratipped Matrix (F2) Red Paren (F1) Red Paren (F2) Stratified Layers (A5) (LRR C) Z Depleted Matrix (F2) Red Paren (F2) Coher (Ex) Stratified Layers (A5) (LRR C) Z Depleted Matrix (F2) Red Paren (F2) Coher (Ex) Torn Muck (A9) (LRR D) Redox Dark Surface (F6) Other (Ex) Thick Dark Surface (A11) Depleted Dark Surface (F7) Phice (A) Wetland Hydrology Indicators (F3) Sandy Gleyed Matrix (S4) Restrictive Layer (If present): Hydric Soil Pr Present (F1) Secondar (F1) Type:	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=kot Channel, ondicators for Michael Sol Indicators: Ydric Soll Indicators: Applicable to all LRRs, unless otherwise noted.) I orn Muck Histoc Fipedon (A2) Sandy Redox (S5) 2 and Much Histoc Spiedon (A2) Sandy Redox (S5) 2 and Much Black Histic (A3) Loamy Mucky Mineral (F1) Redox Darry Mucky Mineral (F2) Stratified Layers (A5) (LRR C) ✓ Depleted Matrix (F2) Redox Darra Surface (F6) Depleted Boow Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Restrictive Layer (If present): Type: Hydric Soil Pr Sandy Gleyed Matrix (S4) Sath Crust (B11) Sath Crust (B12) Wetland Hydrology Indicators: Remarks: No predox functions Sath Crust (B11) Seconds Surface Water (A1) Sath Crust (B11) Seconds Deriver (C12) Deriver (C12) YDepleted Matrix (S4) Retar (A12) Biotic Crust (B11) Seconds Surface Water (A12) Biotic Crust (B11) Seconds Deriver functions YDepth (Inches): Primary Indicator	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Channel, midicators for midicators: (Applicable to all LRRs, unless otherwise noted.) Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sardy Redox (S5) 1 cm Muck Histosol (A2) Stripped Matrix (S6) 2 cm Much Black Histic (A3) Loarny Gleyed Matrix (F2) Red Pater Stratified Layers (A5) (LRR C) Z Depleted Matrix (F2) Red Pater Stratified Layers (A5) (LRR D) Redox Dark Surface (F6) Other (Explement) Torn Nuck (A9) (LRR D) Redox Depressions (F6) Stratified Layers (A5) (LRR C) Vernal Pools (F9) Sandy Mucky Mineral (S1) Vernal Pools (F9) "Indicators of I wetland hy Sandy Gleyed Matrix (S4) Redox Depressions (F8) "Indicators of I wetland hy Sandy Gleyed Matrix (S4) Satternet Satternet "Indicators (F7) Deplet (inches):	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Root Channel, indicators for Histos (A1) Yaric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) indicators for Histos (A1) Histos (A1) Sandy Redox (S5) Black Histic (A3) Loarny Mucky Mineral (F1) Reduced N Reduced N Stratified Layers (A5) (LRR C) Z Depleted Matrix (F2) Torn Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Balow Dark Surface (A11) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Mucky Mineral (S1) Wetland hy Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Mucky Mineral (S1) Wetland hy Restrictive Layer (If present): Type: Depth (inches): Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Self Crust (B11) Saturation (A3) Aquatic Invertebrates (B13) Dark Startace Water (A1) Salt Crust (B11) Sel Saturation (A3) Aquatic Invertebrates (B13) Dark Startace S01 Cracks (B5) Redox presensions (B10)	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Root Channel, indicators for Histosol (A1) Sandy Redox (S5) 1 cm Muck Histosol (A1) Sandy Redox (S5) 2 cm Muck Histosol (A1) Loamy Mucky Mineral (F1) Reduced 1 Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Reduced 1 Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parer Stratified Layers (A5) (LRR C) Z Depleted Dark Surface (F6) Other (Ex) Depleted Below Dark Surface (A12) Redox Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Vernal Pools (F9) Parent And Mucky Mineral (S1) Vernal Pools (F9) Sandy Gleyed Matrix (S4) Vernal Pools (F9) Parent And Mucky Mineral (S1) Seconds Type:	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Root Channel, Indicators for Microson (A1) Histosol (A1) Sandy Redox (S5) I cm Muck (S6) Histosol (A2) Stripped Matrix (S6) 2 cm Muck (S6) Histosol (A2) Loamy Mucky Mineral (F1) Reduced A1 Hydrogen Sulfide (A4) Loamy Mucky Mineral (F2) Red Red Pare Rot (S7) Stratified Layers (A5) (LRR C) Y Depleted Matrix (F3) Other (Ex) Stratified Layers (A5) (LRR C) Redox Dark Surface (F7) Thick Dark Surface (A12) Redox Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) 'Indicators of I wetland hy Wetland hy Sandy Gleyed Matrix (S4) Reading Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Remarks: N ₀ predox fearberts of bernard ; p):t in low(st p = thim of wetland hy Water Solid Pr Primary Indicators (any one indicator is sufficient)	
Type: Concentration, D=Depletion, RM=Reduced Matrix. Codation: PL-Public Ling, To: Provide Ling, To: Provide Ling, To: Public Ling,	M=Matrix.
tydric Soil Indicators: (Applicable to all LRRs, Unless Outer Mass Rotcol) 1 cm Muck Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck Histic Epipedon (A2) Loamy Mucky Mineral (F1) Red Active (S5) Stratified Layers (A5) (LRR C) Z bepleted Matrix (F2) Red Parer Stratified Layers (A5) (LRR C) Z bepleted Matrix (F2) Other (Ex) Depleted Below Dark Surface (A12) Redox Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Vernal Pools (F9) Vernal Pools (F9) Restrictive Layer (If present): Type: Popleted Bark Surface (A12) Wetland Hydrology Indicators: Primary Indicators (A2) Biotic Crust (B11) Secondri Surface Water (A1) Salt Crust (B11) Water Saturation (A3) Aquatic Inverterates (B13) Dra Saturation (A3) Aquatic Inverterates (B13) Dra Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thic Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation (C4) Gra Surface Water Present? Yes No Depth (inches): S	Problematic Hydric Soils ³ :
Histosol (A1) Sandy Rebox (S0) 2 cm Muck Histic Epipedon (A2) Strapped Matrix (S6) Reduced 1 Biack Histic (A3) Loamy Mucky Mineral (F1) Reduced 1 Hydrogen Suffice (A4) Loamy Gleyed Matrix (F2) Other (Ex) Stratified Layers (A6) (LRR C) Depleted Matrix (F3) Other (Ex) Torm Muck (A9) (LRR D) Redox Dark Surface (F6) Other (Ex) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators of I wetland hy Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Type: Hydric Soil Pr Depth (inches): Matrix (A1) Salt Crust (B11) Secondi Surface Water (A1) Salt Crust (B12) Drif High Water Table (A2) Biotic Crust (B12) Drif Saturation (A3) Aquatic Invertebrates (B13) Dra Water Marks (B1) (Nonriverine) Presence of Reduced Iron (C4) C61 Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Nisible on Aerial Imagery (B7) Other (Explain in Remarks) Shi <tr< td=""><td>k (A9) (LRR C)</td></tr<>	k (A9) (LRR C)
Histic Epipedon (A2) Support match Cory Reduced N Black Histic (A3) Loamy Gleyed Matrix (F2) Red Parer Statified Layers (A5) (LRR C) ✓ Depleted Matrix (F3) Other (Ex) 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Other (Ex) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Trick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) *Indicators of I Sandy Gleyed Matrix (S4) Restrictive Layer (If present): Type: Type:	k (A10) (LRR B)
Black Histic (A3) Loany Gleyed Matrix (F2) Red Parer Hydrogen Sulfide (A4) Loany Gleyed Matrix (F3) Other (Exp 1 cm Muck (A9) (LRR D) Red Xuface (F6) Other (Exp Depleted Bark Surface (A11) Depleted Dark Surface (F7) Black Mistice (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Vernal Pools (F9) Vernal Pools (F9) Restrictive Layer (If present): Type: Hydric Soil Pr Depth (inches): Methand Hydrology Indicators: Pit in Jourist post for some of some o	Vertic (F18)
Pryorogen Summer (Pr)	nt Material (TF2)
Statistic Layer (M, CR, D)	plain in Remarks)
□ Initiation of the surface (A11) Depleted Dark Surface (F7) □ Thick Dark Surface (A12) Redox Depressions (F8) □ Sandy Gleyed Matrix (S4) Vernal Pools (F9) Restrictive Layer (if present): Type: □ Deplet (inches):	
Sandy Mucky Mineral (S1)	hydrophytic vegetation and
Sandy Gleyed Matrix (S4) Including Restrictive Layer (if present): Type:	drology must be present.
Restrictive Layer (if present): Type:	
Type:	
Depth (inches):	recent? Yes No
Remarks: No predox features observed pit in lowest point Wetland Hydrology Indicators:	
Hydrology Indicators: Secondi Primary Indicators (any one indicator is sufficient)	
Wetland Hydrology Indicators:	ary Indicators (2 or more required)
Primary Indicators (any one indicator is sunctient)	ter Marks (B1) (Riverine)
	diment Deposits (B2) (Riverine)
High Water Table (A2) Biblic Clisit (B12) Dration (A3)	ft Deposits (B3) (Riverine)
V Saturation (A3)	ainage Patterns (B10)
	y-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine) Oxidized Hindeprotection of Craterial Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Craterial Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Sail Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shite Water-Stained Leaves (B9) Other (Explain in Remarks) FA Field Observations: Surface Water Present? Yes No Depth (inches):	in Muck Surface (C7)
Drift Deposits (B3) (Nonnverine) Presched of Neutron Neutron in Plowed Soils (C6) Sai Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Shi Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shi Water-Stained Leaves (B9) Depth (inches): Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Bescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Roodfide ditch That collects immation pretrint/over appear to more Through t under SH 92 Shill we is form Small culturets pretrief	ayfish Burrows (C8)
	turation Visible on Aerial Imagery (C
Inundation Visible on Aerial Imagely (5/) Outer (Explained reading of the field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Roodfide ditch That collects immation return /over appear to more Through + under SH 92 Shill we is form Small culturets present	allow Aquitard (D3)
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Roodfide ditch That collects impation return/over appear to more Through + under SH 92 Shell we is form Small culturets present	C-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Uncludes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Roodfide ditch That collects immation prefron foren appear to more Through t under SH 92 Since we is form Small culturets prefruit	
Surface Water Present? Yes <u>No</u> <u>Depth (inches)</u> . Water Table Present? Yes <u>No</u> <u>Depth (inches)</u> : <u>Wetland Hydrology</u> (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Roodfide ditch Port collects impation pethon/over appear to more Through + under SH 92 Since we is For Small culturets present	
Water Table Present? Yes <u>No</u> <u>Depth</u> (inches): <u>Wetland Hydrology</u> Saturation Present? Yes <u>No</u> <u>Depth</u> (inches): <u>O</u> <u>Wetland Hydrology</u> (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Roadfiste difth Part collects imzation petron/over appear to <u>Move</u> Through t under SH 92 Since we is for Small culturets present	
Saturation Present? Yes <u>Vo</u> <u>Depth (inches)</u> : <u>O</u> <u>Wethald Hydrology</u> (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Roadfiste ditch That collects impation petern/over appear to <u>Move</u> Through + under SH 92 since we is For Small culvents present	Present? Yes V No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), it available: Remarks: Roadfide ditch That collects impation return/over appear to more Through + under SH 92 Since we is For Small culvents present	
Remarks: Roadfide ditch Part collects imzation petern/over appear to more Through + under SH 92 since we is For Small culverts present	
Remarks: Roadfishe ditch Post collects inzation petion/over appear to more Through + under SH 92 since we is Four Small culvests present	
Remarks: Roadfiste ditch That collects migation out appear to move Through + under SH 92 since we is For small culvests present	Flow - flow
appear to more Through + under SH 92 Since we is for small culvests present	I my loth edge.
Small culverts present	in on boin sing j
Small culvers prima	

WETLAND DE	ERMINATION DATA		18/08
oject/Site:SH 92 Austin	City/County	r: Austin/Delt	a Sampling Date:
olicant/Owner:CDOT			State: Samping Found
estigator(s):Andy_Herb	Section, To	wnship, Range:	Sinne (%): 0
ofform (hillslope, terrace, etc.): <u>Localiste dy</u>	Local relie	f (concave, conv	$(\mathbf{r}, \mathbf{none}): \underline{\mathcal{Contract}}_{\mathbf{r}} $
pregion (LRR): Interior Deserts	Lat: <u>38 46 9</u>	52 Lo	ng: 157 3 @ 75 Datum
Map Unit Name: Daiser Sitty clas	1 loam		NWI classification:
olimatic / hydrologic conditions on the site typical fo	or this time of year? Yes _	✓ No	(If no, explain in Remarks.)
Vegetation Soil or Hydrology	significantly disturbed?	Are "Nor	mal Circumstances" present? Yes No
Vegetation, con, or Hydrology	naturally problematic?	(If neede	d, explain any answers in Remarks.)
IMMARY OF FINDINGS – Attach site n	ap showing sampli	ng point loca	ations, transects, important features, etc
View View Dreagent? Ves	No V	the Sampled Ar	
ydrophytic Vegetation Present? Yes		thin a Wetland?	Yes No
Addiand Hydrology Present? Yes	No		
remarks: A lite - alor	& forceling w	Some SM	all trees; no wetland
Koodside arrive un	9.10 1		
			·
EGETATION	Abashita Domins	nt Indicator	Dominance Test worksheet:
(Lise scientific names)	<u>% Cover</u> Species	s? Status	Number of Dominant Species
Elaragnus angustiblia	<u>25 /</u>	FAC	That Are OBL, FACW, or FAC: (A)
<u> </u>			Total Number of Dominant 2- (B)
			Species Across All Strata:
			Percent of Dominant Species
Tota	Cover: 25		That Are OBL, FACW, or FAC.
Sapling/Shrub Stratum			Prevalence Index worksheet:
1			Total % Cover of:Multiply by:
			OBL species x1 =
3	<i>r</i>		FACW species X2
5			FAC species x3 =
Tota	l Cover:		FACU species X5 =
Herb Stratum	90 V	UPL	Column Totals: (A)
1. Bromus intermis		UPL	
2. Thing by nim informediation	/	FACW	Prevalence Index = B/A =
3. Ascrepus speciesa		OBL	Hydrophytic Vegetation Indicators:
4. Conex enjory		FACU	Dominance Test is >50%
5. Alparagus officiates			Prevalence Index is ≤3.0
6	·····		data in Remarks or on a separate sheet)
/ 9			Problematic Hydrophytic Vegetation ¹ (Explain)
8 Tot	al Cover: <u>98</u>	4	
Woody Vine Stratum			¹ Indicators of hydric soil and wetland hydrology mu
1			be present.
2			Hydrophytic
		D	Present? Yes No
% Bare Ground in Herb Stratum	% Cover of Biotic Crust		the Flore w/
Remarks: Edge of wetland alon	3 Row Fence	; data f	sount armer Eleaegnus "
dense Browns.		i	
	·		
			Arid West – Version 11-1-2

Sampling Point: SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Color (moist) % Type¹ Loc² Texture Matrix Depth % Color (moist) (inches) 104R2/2 100 100 -²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 1 cm Muck (A9) (LRR C) ____ Sandy Redox (S5) __ Histosol (A1) 2 cm Muck (A10) (LRR B) ____ Stripped Matrix (S6) ____ Histic Epipedon (A2) Reduced Vertic (F18) Loamy Mucky Mineral (F1) Black Histic (A3) _ Red Parent Material (TF2) Loamy Gleyed Matrix (F2) ___ Hydrogen Sulfide (A4) Other (Explain in Remarks) Depleted Matrix (F3) ____ Stratified Layers (A5) (LRR C) Redox Dark Surface (F6) ____ 1 cm Muck (A9) (LRR D) Depleted Dark Surface (F7) ___ Depleted Below Dark Surface (A11) Redox Depressions (F8) ____ Thick Dark Surface (A12) ³Indicators of hydrophytic vegetation and Vernal Pools (F9) ____ Sandy Mucky Mineral (S1) wetland hydrology must be present. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): No Type: Hydric Soil Present? Yes Depth (inches): No redox features ; no indicators Remarks: HYDROLOGY Secondary Indicators (2 or more required) Wetland Hydrology Indicators: Water Marks (B1) (Riverine) Primary Indicators (any one indicator is sufficient) ____ Sediment Deposits (B2) (Riverine) Salt Crust (B11) Surface Water (A1) ___ Drift Deposits (B3) (Riverine) ____ Biotic Crust (B12) High Water Table (A2) ____ Drainage Patterns (B10) ____ Aquatic Invertebrates (B13) ____ Saturation (A3) Dry-Season Water Table (C2) ___ Hydrogen Sulfide Odor (C1) ____ Water Marks (B1) (Nonriverine) ____ Thin Muck Surface (C7) Oxidized Rhizospheres along Living Roots (C3) _ Sediment Deposits (B2) (Nonriverine) Crayfish Burrows (C8) Presence of Reduced Iron (C4) _ Drift Deposits (B3) (Nonriverine) ____ Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) ____ Shallow Aquitard (D3) Other (Explain in Remarks) ___ Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: Depth (inches): ___ __ No __ Surface Water Present? Yes _____ No ____ Depth (inches): _____ Water Table Present? Yes _____ No ____ Depth (inches): _____ Wetland Hydrology Present? Yes _ Saturation Present? (includès capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Data point a 0.5-1.0 (V) above wetland edge; no indicators; dry Remarks: Arid West - Version 11-1-2006

	City/County	/: Austin/Do	elta Sampling Date: $\frac{2}{27}/25$
	exp.eeuny	· · ·	State: CO Sampling Point: 1-3 W
pplicant/Owner:CDO1	Cention Tr	wnshin Rang	e: 6,155,94W
nvestigator(s): <u>Andy Herb</u>		f (concevo co	nver none): Con Vex Slope (%):
andform (hillslope, terrace, etc.):			and 187 56 34 Datum: NAD 8
ubregion (LRR):	Lat: <u></u>	I	NAU alongition: PEM
ioil Map Unit Name:	loary	1	NVVI classification.
re climatic / hydrologic conditions on the site typical fo	r this time of year? Yes	<u> </u>	(If no, explain in Remarks.)
re Vegetation, Soil, or Hydrology	significantly disturbed?	Are "N	ormal Circumstances" present? Yes No
re Vegetation, Soil, or Hydrology	naturally problematic?	(If need	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing samplir	ng point loo	cations, transects, important features, etc
Hydrophytic Vegetation Present? Yes	No	he Sampled A	Area
Hydric Soil Present? Yes	∠ No wit	hin a Wetland	1? Yes No
Wetland Hydrology Present? Yes	_ No		
Remarks: Norrow forrge wetland Sides of SH92 - culvert	Is along Nort	The Delta	Canal; extends to both
VEGETATION			
	Absolute Dominar	nt Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.)	-70 COver Opecies	<u> </u>	That Are OBL, FACW, or FAC: (A)
1		_	T. L. Number of Deminort
3			Species Across All Strata:(B)
4			Percent of Dominant Species
Total C	Cover:		That Are OBL, FACW, or FAC: (A/B
Sapling/Shrub Stratum			Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
2			OBL species x 1 =
3			FACW species x 2 =
4			FAC species x 3 =
0C	Cover:		FACU species x 4 =
Herb Stratum			UPL species x 5 =
1. Chalanz anundinalca	<u> </u>	- UBL	Column Totals: (A) (B
2. Distichliz Spicata	5	TAL	Prevalence Index = B/A =
3			Hydrophytic Vegetation Indicators:
4			✓ Dominance Test is >50%
5			Prevalence Index is ≤3.0 ¹
6			Morphological Adaptations ¹ (Provide supporting
7			data in Remarks or on a separate sheet)
8 Total	Cover 95 47/1	9	Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum		/	1
1			indicators of nyonic soil and welland hydrology must be present.
2		<u> </u>	
Total	Cover:		Hyperophytic Vegetation
% Bare Ground in Herb Stratum 5 %	Cover of Biotic Crust	0	Present? Yes <u>V</u> No
Remarks: Narrow frirge wetter	I along cano	I; alm	1054 exclosively phalans;
fringe 3.5' wide	9		
U C			
	· · · · · · · · · · · · · · · · · · ·		Anid March - Marrian 44.4.200
			And west - version 1-1-200

US Army Corps of Engineers

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IL	· .				m the abconce o	f indicators.)
ofile Descr	iption: (Describe	to the dept	h needed to document the inc	licator or confirm	m the absence o	i inuicators.)
epth	Matrix		Redox Features	Type ¹ Loc ²	Texture	Remarks
iches)	Color (moist)	·		<u> </u>	clares	silty chan
2-14	104R 3/2	100				
	·····					
				· · · · · · · · · · · · · · · · · · ·		
		· · · ·				
vpe C=C	oncentration, D=De	pletion, RM=	Reduced Matrix. ² Location:	PL=Pore Lining,	RC=Root Chann	el, M=Matrix.
vdric Soil	ndicators: (Appli	cable to all	LRRs, unless otherwise note	d.)	Indicators	for Problematic Hydric Solis :
Histosol	(A1)		Sandy Redox (S5)		1 cm M	luck (A9) (LRR C)
Histic Er	pipedon (A2)		Stripped Matrix (S6)		2 cm M	luck (A10) (LRR B)
Black Hi	stic (A3)		Loamy Mucky Mineral	(F1)		ed Venic (F (o)
	n Sulfide (A4)		Loamy Gleyed Matrix ((F2)		arent Malenar (172)
Stratified	d Layers (A5) (LRR	(C)	Depleted Matrix (F3)	;		
1 cm Mu	uck (A9) (LRR D)		Redox Dark Surface (F	-6)		
Deplete	d Below Dark Surfa	ice (A11)	Depleted Dark Surface	e (F7)		
Thick D	ark Surface (A12)		Redox Depressions (F	8)	³ Indicators	of hydrophytic vegetation and
Sandy M	/lucky Mineral (S1)		Vernal Pools (F9)		wetland	hydrology must be present.
Sandy C	Gleyed Matrix (S4)					
lestrictive	Layer (if present):					
Type:			·			No.
Denth (im						Present? Tes NO
Remarks:	Saturated	to sur	face; lots of th	ine roots	Brongho	-t profile
Deptn (in Remarks:	Saturated	to Sur	Face; lots of f	ine roots	Morryho	t profile
YDROLC	Saturated OGY	to Sur	Face; lots of t	ine roots	Brorgho	t profile
YDROLC)GY ydrology Indicator	то бил s:	Face; lots of t	ine roots	Brorgho	A profile
YDROLC Wetland Hy Primary Ind	Saturnted Saturnted OGY Idrology Indicator	to fur s: dicator is suf	ficient)	ine roots	Brorgho <u>Seco</u>	A profile Indary Indicators (2 or more required) Water Marks (B1) (Riverine) Indicators (B2) (Biverine)
YDROLO Wetland Hy Primary Ind Surface	OGY ydrology Indicator icators (any one inc a Water (A1)	to Sur s: dicator is suf	ficient)	ine roots	Brorgho <u>Seco</u>	A profile Indary Indicators (2 or more required) Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Deposits (B2) (Riverine)
YDROLO Wetland Hy Primary Ind Surface High W	OGY vdrology Indicator icators (any one ind e Water (A1) vater Table (A2)	to fur s: dicator is suf	ficient) Salt Crust (B11) Biotic Crust (B12)	ine roots	Seco	A profile Indary Indicators (2 or more required) Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
YDROLO Wetland Hy Primary Ind Surface High W	Contes). Saturnted Saturnted ydrology Indicator icators (any one inc a Water (A1) yater Table (A2) tion (A3)	to fur s: dicator is suf	ficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrate	ine roots	<u>Brongho</u> <u>Seco</u>	A pro-file Indary Indicators (2 or more required) Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Market Market (C2)
VDROLO Wetland Hy Primary Ind Surface High W Satura Water	Contes).	to fur s: dicator is suf	ficient) Salt Crust (B11) Salt Crust (B12) Aquatic Invertebrate Hydrogen Sulfide O	ine roots es (B13) dor (C1)	Seco	A pro-6/e Indary Indicators (2 or more required) Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
VDROLO VDROLO Wetland Hy Primary Ind Surface High W Vater Sedimu	Contes).	rs: dicator is suf	ficient) Salt Crust (B11) Salt Crust (B12) Aquatic Invertebrate Hydrogen Sulfide Ou Oxidized Rhizosphe	es (B13) dor (C1) pres along Living	<u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>Seco</u> <u>S</u> <u>Seco</u> <u>S</u> <u>Seco</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u>	A profile Indary Indicators (2 or more required) Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
VDROLO Wetland Hy Primary Ind Surface High W Satura Water Sedimu	Contes).	rs: dicator is suf verine) Nonriverine	ficient) Salt Crust (B11) Salt Crust (B12) Aquatic Invertebrate Hydrogen Sulfide O) Oxidized Rhizosphe Presence of Reduce	es (B13) dor (C1) res along Living l ed Iron (C4)	Second Se	A profile Indary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
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Depth (In Remarks: IYDROLO Wetland Hy Primary Ind Surface Satura: Satura: Vater Sedimu Surface Inunda Surface Inunda Surface W Water Tab Saturation (includes co Describe F Remarks:	Contes). Saturnated Saturnated Saturnated Saturnated Saturnated (A) (A) Marks (B1) (Nonrive e Vater (A1) /ater Table (A2) tion (A3) Marks (B1) (Nonrive e Soil Cracks (B6) tion Visible on Aeri Stained Leaves (B3) ervations: ater Present? Present? Present? Present? Present? Accorded Data (strees) Accorded Data (strees)	rerine) Nonriverine) verine) al Imagery (1 9) Yes Yes Yes am gauge, r	ficient) <u>Salt Crust (B11)</u> <u>Biotic Crust (B12)</u> <u>Aquatic Invertebrate</u> <u>Hydrogen Sulfide Or</u> <u>Oxidized Rhizosphe</u> <u>Presence of Reduce</u> <u>Recent Iron Reduct</u> B7) <u>Other (Explain in Reduct B7) <u>Depth (inches):</u> <u>No</u> <u>Depth (inches):</u> <u>No</u> <u>Depth (inches):</u> <u>No</u> <u>Depth (inches):</u> <u>No</u> <u>Depth (inches):</u> <u>No</u> <u>Depth (inches):</u> <u>Salt Crust (B12)</u> <u>Depth (inches):</u> <u>Salt Crust (B11)</u> <u>Depth (inches):</u> <u>Salt Crust (B12)</u> <u>Depth (inches):</u> <u>Salt Crust (B12)</u> <u>Depth (inches):</u> <u>Salt Crust (B12)</u> <u>Salt Crust (B12)</u> <u>Depth (inches):</u> <u>Salt Crust (B12)</u> <u>Depth (inches):</u> <u>Cancel is villen</u></u>	ine roots	Roots (C3) Is (C6) Vetland Hydrolo ns), if available: n o flow	Indary Indicators (2 or more required) Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) gy Present? Yes No in canal; banks of s obs; current
Permarks: YDROLC Wetland Hy Primarv Ind — Surface — High W Vater — Sedimu — Drift Du — Surface — Drift Du — Surface — Inunda — Water- Field Obse Surface W Water Tab Saturation (includes c Describe F Remarks: Cema	Contes). Saturnatud Saturnatud Saturnatud Saturnatud Saturnatud Saturnatud Saturnatud POGY (verticators (any one incomposite (a) (a) Marks (a) (nonrive e Vater (A1) /ater Table (A2) tion (A3) Marks (B1) (Nonrive e voiter Table (A2) tion (A3) Marks (B1) (Nonrive e soil Cracks (B6) tion Visible on Aeri Stained Leaves (B3) ervations: ater Present? Present? Present? Present? Present? Accorded Data (streened) Accorded Data (streened	rerine) Nonriverine verine) al Imagery ((9) Yes Yes Yes pam gauge, r	ficient) 	es (B13) dor (C1) irres along Living I ad Iron (C4) ion in Plowed Soi emarks) 	Vetland Hydrolo ns), if available:	Indary Indicators (2 or more required) Nater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) FAC-Neutral Test (D5) gy Present? Yes No in canaf ; banks & s obs ; current
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Arid West - Version 11-1-2006

N DATA FORM - Arid West Region

WETLAND DETER	RMINATION DAT	AFOIL	2/27/0
ou 02 Austin	City/Coun	ty: <u>Austin/Del</u>	Ita Sampling Date
ct/Site: <u>SPI 92 Austin</u>	·		_ State: Sampling Point
cant/Owner:	Section,	Township, Range	: <u>0,155,170</u>
stigator(s): <u>Andy new cost</u> Asalsale depr	Local rel	lief (concave, con	ivex, none): <u>Concare</u> Slope (70).
form (hillslope, terrace, etc.).	Lat: 38 46	56 L	ong: 107 50 39 Datum: 70000
egion (LRR):Interior Deserts	loan	1	NWI classification:
Map Unit Name:	his time of year? Yes	No	(If no, explain in Remarks.)
climatic / hydrologic conditions on the site typical for a	significantly disturbe	d? Are "No	ormal Circumstances" present? Yes No
Vegetation, Soil, of Hydrology	naturally problematic	? (If need	led, explain any answers in Remarks.)
Vegetation, Soil, or Hydrology	had a serving comp	ling point loc	cations, transects, important features, etc
MMARY OF FINDINGS – Attach site ma	snowing samp		
Yes	No	s the Sampled A	rea
vdric Soil Present? Yes	No	within a Wetland	1? Yes No
/etland Hydrology Present? Yes	No	1	20100
emarks: When In coal code ditch	abject.	to North	film canon
Week of 1	J		
EGETATION			Dominance Test worksheet:
	Absolute Domi	inant Indicator	Number of Dominant Species
<u>ree Stratum</u> (Use scientific names.)	<u></u>		That Are OBL, FACW, or FAC: (A)
I			Total Number of Dominant
2			Species Across All Strata:
3			Percent of Dominant Species 33 (A)
+ Total C	over:		That Are OBL, FACW, of FAC.
Sapling/Shrub Stratum			Prevalence Index worksheet:
1			Total % Cover of: Multiply by.
2		;;	
3	· · · · · · · · · · · · · · · · · · ·		FAC species x3 =
5			FACU species x4 =
Total C	over:		UPL species x 5 =
Herb Stratum	30	J/ UPL	Column Totals: (A)
1. Bromus recitation	20	J FAC	D undered Index = B/A =
2. Distantis spectra	20	V FACH	Hidrophytic Veretation Indicators:
3. Damin intermedium		UPL_	Dominance Test is >50%
4			Prevalence Index is ≤3.0 ¹
6.			Morphological Adaptations ¹ (Provide supportin
7			- data in Remarks or on a separate sheet)
8	Cover 80	40/16	
10iai		, , ,	updicators of hydric soil and wetland hydrology mu
1			be present.
2.		· · · · · · · · · · · · · · · · · · ·	- Hydrophytic
Total	Cover:		Vegetation Ves No
		~ .	
% Bare Ground in Herb Stratum %	Cover of Biotic Crus	t	
% Bare Ground in Herb Stratum <u>20</u> % Remarks: <u>1.1.</u> <u>A</u> <u>wala</u> <u>1</u> <u>more</u>	Cover of Biotic Crus	ad liste ;	no wetlands
% Bare Ground in Herb Stratum _ 20 % Remarks: Weedy upland and	along ro	ad liste;	No withanks
% Bare Ground in Herb Stratum _ 20 % Remarks: Weedy upland and	along ro	end (, zhe ;	No wetlands
% Bare Ground in Herb Stratum _ 20 % Remarks: Weedy upland and	along ro	end (, the ;	No withanks

IL	needed to document the indicator or conf	irm the absence of	indicators.)
ofile Description: (Describe to the depth	needed to document the material		Demotio
epth <u>Matrix</u>	Color (moist) % Type ¹ Loc ²		Remains
nches) <u>Color (moist)</u> <u>%</u> –		Clayey -	Silty clay 10ary
D-14 2.54313 95 -		/,, '	e 2
10yR2/2 5_			
		_	
	· · · · · · · · · · · · · · · · · · ·		
		RC=Root Channe	el. M=Matrix.
Type: C=Concentration, D=Depletion, RM=	Reduced Matrix. ² Location: PL=Pore Linit	Indicators	or Problematic Hydric Soils ³ :
Hydric Soil Indicators: (Applicable to all	LRRs, unless otherwise noted.)	1 cm M	uck (A9) (LRR C)
Histosol (A1)	Sandy Redox (S5)	2 cm M	uck (A10) (LRR B)
Listic Enjnedon (A2)	Stripped Matrix (S6)	- 2 off m	ad Vertic (F18)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Red Pa	arent Material (TF2)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Stratified Lavers (A5) (LRR C)	Depleted Matrix (F3)	+ •	• •
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)		
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)		
Thick Dark Surface (A12)	Redox Depressions (Fo)	³ Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Vernal Pools (F9)	wetland	hydrology must be present.
Sandy Gleyed Matrix (S4)			
Restrictive Layer (if present):			
		Hudric Soil	Present? Yes No
Donth (inches)			
HYDROLOGY		Seco	ondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators:		Secc	ondary Indicators (2 or more required) Water Marks (B1) (Riverine)
HYDROLOGY Wetland Hydrology Indicators:	fficient)	Seco	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sodiment Deposits (B2) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su	fficient) Salt Crust (B11)	<u>Secc</u>	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1)	fficient) Salt Crust (B11) Biotic Crust (B12)	<u>Secc</u>	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2)	fficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13)	<u>Secc</u>	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3)	fficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	<u>Sec</u>	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	fficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Liv		Mater Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	fficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4)		Dindary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine)	fficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed	ring Roots (C3)	Dindary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6)	fficient)	ring Roots (C3)	Ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery	fficient)	ring Roots (C3)	Dindary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C4) Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su	fficient)	ring Roots (C3)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C8 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su	fficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed (B7) Other (Explain in Remarks)	ring Roots (C3) I Soils (C6)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C3 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su	fficient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) e) Oxidized Rhizospheres along Liv Presence of Reduced Iron (C4) Recent Iron Reduction in Plowed (B7) Other (Explain in Remarks) No Depth (inches):	ring Roots (C3) I Soils (C6)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C3 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su	fficient)	ring Roots (C3)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C3 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su	fficient)	ring Roots (C3)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su	fficient)	ring Roots (C3) i Soils (C6) Wetland Hydrol ections), if available:	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su	fficient)	ring Roots (C3)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is surface Water (A1)	fficient)	ring Roots (C3)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge. Remarks: No hydmology	fficient)	ring Roots (C3)	Dindary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge) Remarks: No hydmology	fficient)	ing Roots (C3)	Dindary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes Saturation Present? Yes Mater Table Present? Yes Saturation Present? Yes Saturation Present? Yes Mater Table Present? Yes Saturation Present? Yes Remarks: No hydrology	fficient)	ing Roots (C3) Soils (C6) Wetland Hydrol ections), if available:	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is su Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gauge Remarks: No hydmology	fficient)	ring Roots (C3)	Dindary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No

		· · · · ·	H-0	Sampling Da	te: 2/27/
ct/Site: SH 92 Austin	City/Cou	nty: <u>Austin/De</u>		Sampling Po	int: 1-4W
cant/Owner: CDOT			$- \frac{\text{State}}{2} - \frac{20}{14} \frac{1}{5}$	94W	•
tigator(s): Andy Herb	Section,	Township, Range	a:,,	ncave	Slope (%): 0
form (hillslope, terrace, etc.): Roodfile de	grillen Local re	elief (concave, cor	1vex, none):	1. 28	Datum: NAD 8
agion (LRR): Interior Deserts	Lat: <u>38 4</u> 7	<u> 2</u>	.ong:	if action:	PEM
Billinge silty clay	loam				<u></u>
Viap Unit Name.	for this time of year? Yes	s No	(if no, explain	in Remarks.)	
climatic / Hydrologic contaitone on Hydrology	significantly disturbe	ed? Are "N	ormal Circumstanc	es" present? Ye	s 110
Vegetation, our, or Hydrology	naturally problemat	ic? (If need	ded, explain any a	nswers in Remark	(5.)
Vegetation, Soli, or river egg	man showing sam	nling point lo	cations, trans	ects, importa	nt features, e
MMARY OF FINDINGS – Attach site	map showing samp	p			
Ves Vegetation Present? Yes	No	Is the Sampled	Area		
drophylic vegetation recommended years Yes	No	within a Wetland	y? Yes	No	
etland Hydrology Present? Yes	No	- diara l	-15-20 - 1	eceives 4	Nater
emarks: I way roads de dite	h at for of ,	attra :	the lim	(Sol. PE.	M 20% PS
1 Insached inights	n ditch to e	west, we			
from or come					
				La baseta	
GETATION	Absolute Dom	ninant Indicator	Dominance Tes		_
ree Stratum (Use scientific names.)	<u>% Cover</u> Spe	cies? Status	Number of Domi	ACW, or FAC:	<u> </u>
				Densinent	
			Species Across	All Strata:	<u> </u>
				- ent Species	10-
			That Are OBL, F	ACW, or FAC:	(#
Sepling/Shrub Stratum			Desirelance Ind	ex worksheet:	
Sapling/Smub Onteren			Total % Co	ver of:	Multiply by:
		· · · · · · · · · · · · · · · · · · ·		<u></u>	1 =
			OBL species	X	
3.			OBL species	X2	2 =
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2			OBL species FACW species FAC species FACU species	x 2 x 2 x 3	2 = 3 = 4 =
2			OBL species FACW species FAC species FACU species UPL species	X ; X ; X ; X ;	2 = 3 = 4 = 5 =
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2. 3. 4. 5. <u>Herb Stratum</u> 1. <u>Muhlenbergia apertulia</u> 2. <u>Eleochanz</u> Polystnz		FACW	OBL species FACW species FAC species FACU species UPL species Column Totals:	x 2 x 2 x 4 x	2 = 3 = 4 = 5 =)
2. 3. 4. 5. 5. To Herb Stratum 1. Muhlembergia asperbilia 2. Eleocharrz polystn7 3. Phalanz anivolonacea	otal Cover:	V FACW V OBL V OBL	OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalent Hydrophytic V	x 2 x 2 x 4 x 4 x 4 (A ce Index = B/A = regetation Indica	2 = 3 = 4 = 5 =) ators:
1. <u>Herb Stratum</u> 1. <u>Muhlembergia aspertulia</u> 2. <u>Eleocharra polysta</u> 3. <u>Phalans anivolonacea</u> 4. <u>Dispichlis spicata</u>	30 30 20	V FACW V OBL V OBL V BBL FAC	OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalent Hydrophytic V Dominanc	x 2 x 2 x 4 x 4 	2 = 3 = 4 = 5 =) ators:
1. <u>Muhlenbergia asperblia</u> 2. <u>Eleocharrz palusta</u> 3. <u>Phalarz anivoloracea</u> 4. <u>Dzpzhliz spicata</u> 5. Juncus baltzins	30 30 20 2 2 2	V FACW V OBL V BBL FAC FACW	OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalent Hydrophytic V Dominanc Prevalenc	x 2 x 2 x 4 x 4 	2 = 3 = 4 = 5 =) ators:
1. <u>Muhlembergia asperbilia</u> 2. <u>Eleocharra polysta</u> 3. <u>Phalana anundonacea</u> 4. <u>Distichlia spicata</u> 5. <u>Juncus balticus</u> 6.	otal Cover:	V FACW V OBL V BBL FAC FACW	OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalent Hydrophytic V Dominanc Prevalenc Morpholog	x x x x x x x x x x x x x x x x	2 = 3 = 4 = 5 = 5 = itors: (Provide supporting congrate sheet)
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3.	otal Cover:	FACW FACW BL BL FAC FAC FACW FAC FACW <	OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalent Hydrophytic V Dominanc Prevalenc Morpholog data in Problema ¹ Indicators of be present. Hydrophytic Vegetation Present?	$\frac{1}{2} \times \frac{1}{2} \times \frac{1}$	2 = 3 = 4 = 5 = tors: (Provide supporting separate sheet) egetation ¹ (Explained the separate sheet) egetation ¹ (Explained the separate sheet) equation hydrology mathematication of the separate sheet of

	Sampling Point:
L	n the absence of indicators.)
ofile Description: (Describe to the depth needed to Redox Features	Remarks
epth <u>Matrix</u> <u>Color (moist) % Type¹ Loc²</u>	Texture
	<u>clay</u>
<u><u><u>y</u>=14 2.59472 []</u></u>	
21 ocation: PI =Pore Lining.	RC=Root Channel, M=Matrix.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Location: 1 L Ford Lines,	Indicators for Problematic Hydric Soils":
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise network)	1 cm Muck (A9) (LRR C)
Histosol (A1) Sandy Redox (33)	2 cm Muck (A10) (LRR B)
Histic Epipedon (A2) Stripped Matrix (S0)	Reduced Vertic (F18)
Black Histic (A3) Loamy Mucky Milleral (17)	Red Parent Material (TF2)
Hydrogen Sulfide (A4)	Other (Explain in Remarks)
Stratified Layers (A5) (LRR C)	
1 cm Muck (A9) (LRR D) Redox Dark Surface (F0)	
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	
Thick Dark Surface (A12) Redox Depressions (F0)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1) Vernal Pools (r9)	wetland hydrology must be present.
Sandy Gleyed Matrix (S4)	
Restrictive Layer (if present):	
Туре:	Hydric Soil Present? Yes V No
Denth (inches):	
Remarks: Saturated to surface w/1-2" of water e	my surface in some areas
Remarks: Soturated to surface w/1-2" of water e	on surface in some areas
Remarks: Saturated to surface w/1-2" of water e IYDROLOGY	Secondary Indicators (2 or more required)
Remarks: Sotunted to surface "/1-2" of water e 1YDROLOGY Wetland Hydrology Indicators:	<u>Secondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine)
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Remarks: Soturated to surface "/1-2" of water e 1YDROLOGY Wetland Hydrology Indicators: <u>Primary Indicators (any one indicator is sufficient)</u>	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
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Remarks: Saturated to Surface "/1-2" of water to HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) ✓ Saturation (A3) ✓ Water Markes (B1) (Nonriverine)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) This Muck Surface (C7)
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Remarks: Saturated to Surface "/1-2" of water to HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Ø Si Deposite (B3) (Nonriverine) Ø Si Deposite (B3) (Nonriverine)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
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Remarks: Saturated to Surface "/1-2" of watter to HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) ✓ Surface Water (A1) Salt Crust (B11) ✓ High Water Table (A2) Biotic Crust (B12) ✓ Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Sc Isourdation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	Surface in forme areas Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Shallow Aquitard (D3) EAD Marker Table (C5)
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Remarks: Saturated to Surface w/1-2" of water e HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) ✓ Surface Water (A1) Salt Crust (B11) ✓ High Water Table (A2) Biotic Crust (B12) ✓ Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Living Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Sc Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) No Depth (inches): 1-2 Field Observations: O O Sutrace Water Present? Yes No Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0 Inchides capillary fringe) Depth (Surface in some areas Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Roots (C3) Thin Muck Surface (C7) Crayfish Burrows (C8) oils (C6) Shallow Aquitard (D3) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No ions), if available: res res Minus mathematical formation of the
Deprimentation Remarks: Soturated to Surface "/1-2" of water of Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) ✓ Surface Water (A1) Salt Crust (B11) ✓ High Water Table (A2) Biotic Crust (B12) ✓ Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Living Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Sc Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water Table Present? Yes Water Table Present? Yes Vater Table Present? Yes Yes No Depth (inches): O Saturation Present? Yes Vater Table Present? Yes No Depth (inches): O Depth (inches): O O Saturation Present? Yes No Depth (inches): O Saturation Present? Yes No	Secondary Indicators (2 or more required)
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WEILAND DETERM		/AIA • •		al-he
iect/Site: SH 92 Austin	City/C	County: A	ustin/Delt	a Sampling Date: 2/27/02
				State: <u>CO</u> Sampling Point: <u>7 7 5 5</u>
anicanicowner:e	Secti	on, Townshi	p, Range:	<u>31, 145, 94W</u>
stigator(s) Real (de dipression	۲ Loca	al relief (conc	cave, conv	vex, none): <u>Con cave</u> Slope (%): <u>D</u>
Idtorm (nilisiope, tenace, etc.).	Lat: 38 4	17 13	Lo	ng: 107 56 28 Datum: N77313
Billing Little class log	M	· · · · ·		NWI classification:
Map Unit Name:	time of year?	Yes	No	(If no, explain in Remarks.)
climatic / hydrologic conditions on the site typical for this	nificantly distu	irbed?	Are "Nor	mal Circumstances" present? Yes No
Vegetation, Soli, or Hydrology or	aturally problem	natic?	(If neede	ed, explain any answers in Remarks.)
Vegetation, Soll, of Hydrology	howing sa	mpling po	oint loca	ations, transects, important features, etc.
JMMARY OF FINDINGS - Attach site map	./		<u></u>	
lydrophytic Vegetation Present? Yes No		is the Sa	mpled Ar	ea No
lydric Soil Present? Yes No)	within a '	Wetland?	Yes No
Vetland Hydrology Present?	a chuil li ch	1 to	Flood	occassionally; some
remarks: Rondine di lan prom	+ enn	ah to	met	t veg criteria; wetland
hydrophytes printing, and	-4- 10	ent C	ADWA	nelt
hydrology interation inking and	- / /			
EGETATION		aminant Ind	licator I	Dominance Test worksheet:
	Absolute D % Cover S	pecies? St	tatus	Number of Dominant Species 2
1 (Use scientific nemoci)				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3			:	Species Across All Strata:
4.				Percent of Dominant Species 33 (A/B)
Total Cove	r:	· , ·	•	That Are OBL, FACW, or FAC: (VD)
Sapling/Shrub Stratum	5	F	ACW	Prevalence Index worksheet:
1. Taman x ranjosissi				Total % Cover of: Multiply by:
2				OBL species x1 =
3		· · ·		FACW species X2 =
5		·		FAC species x4 =
Total Cove	er: <u>5</u>			FACU Species xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Herb Stratum	15		UPL	Column Totals: (A) (B)
1. Malility alla	10		FACU	
Acroptilon repens	/0	<u> </u>	UPL	Prevalence Index = B/A =
) Ditzhliz gricata	10		FAC	Hydrophytic Vegetation indicators.
5. Unknown aster		<u> </u>		$\frac{1}{2} = \frac{1}{2} $
6. Elymus trachycarlus			ACU	Morphological Adaptations ¹ (Provide supporting
7. Poa pritensis			Thea	data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation' (Explain)
Total Cov	ver: <u>(¢></u>	53/13		
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.
2				
Total Cov	ver:			Vegetation
% Bare Ground in Herb Stratum 35 % Co	ver of Biotic Cr	ust0	<u> </u>	Present? Yes No
Remarks: A C CL	Jem W	eedy "	w/sea	Honed Tamarix; Some
Koadside diter and -	eltorder	ment	ý	
			,	
Lidely scattered topullis a	····			
udely scattered topullis a				

			needed to document the i	nulcator or contil	III UIC ausenice	
ofile Desc	ription: (Describe	o the depth	Theeded to document and the			
epth	Matrix		Redox Features	Type ¹ Loc ²	Texture	Remarks
ches)	<u>Color (moist)</u>	<u></u>			chuer	
0-14	2,544/3	100		<u></u>		
		·				
		_		;		
				•		
		- <u></u>				
vne C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix. ² Location	n: PL=Pore Lining	, RC=Root Char	nnel, M=Matrix.
dric Soil	Indicators: (Applic	able to all l	RRs, unless otherwise not	ed.)	Indicator	s for Problematic Hydric Sons :
Histosol	(A1)		Sandy Redox (S5)	· · · · ·	1 cm	
Histic F	ninedon (A2)		Stripped Matrix (S6)		2 cm	Muck (A10) (LRR B)
Black H	istic (A3)		Loamy Mucky Minera	al (F1)	Redu	iced Vertic (F18)
Hvdroge	en Sulfide (A4)		Loamy Gleyed Matri:	k (F2)		Parent Material (TF2)
Stratifie	d Lavers (A5) (LRR	C)	Depleted Matrix (F3)		- Othe	r (Explain in Remarks)
1 cm M	uck (A9) (LRR D)		Redox Dark Surface	(F6)		
Deplete	d Below Dark Surfac	ce (A11)	Depleted Dark Surfa	ce (F7)		
 Thick D	ark Surface (A12)		Redox Depressions	(F8)	31	e of hydrophytic vegetation and
Sandy I	Mucky Mineral (S1)		Vernal Pools (F9)		Indicator	s or hydrophylic vegetation and
Sandy	Gloved Matrix (S4)				wetlar	id hydrology must be present.
Januv						
	Laver (if present):					1
Cestrictive	Layer (if present):			- * 		
estrictive Type: Depth (ir Remarks:	Layer (if present): nches): N_p hydrode	- Soil	indizatory		Hydric So	oil Present? Yes No
Type: Depth (in Remarks:	Layer (if present): nches): N_{P} hylria	- Soil	indicatory		Hydric So	bil Present? Yes No
Sandy (Restrictive Type: Depth (in Remarks:	Layer (if present): N_{P} hydrore	e Soil	indicators		Hydric So	oil Present? Yes No
Sality estrictive Type: Depth (ir Remarks:	Layer (if present): N_{p} hydrocomology DGY	- Soil	indizatory		Hydric So	bil Present? Yes No
Sality (estrictive Type: Depth (ir lemarks: YDROL(Wetland H	Layer (if present): nches): N_{P} hydrove DGY ydrology Indicator	5. 5:	indizators		Hydric So Sec	condary Indicators (2 or more required) Water Marks (B1) (Riverine)
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Salidy Lestrictive Type: Depth (ir Remarks: YDROL(YDROL(Wetland H Primary Inc Surfac Satura Satura Sedim Sedim	Layer (if present): 	s: licator is suf lonriverine) verine)	ficient) Salt Crust (B11) Salt Crust (B12) Aquatic Invertebra Hydrogen Sulfide Oxidized Rhizosp Presence of Redu	ates (B13) Odor (C1) heres along Living iced Iron (C4)	Hydric So	condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8)
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Sandy v testrictive Type: Depth (in Remarks: YDROL(Wetland H Primary Inc Surfac Satura Satura Sedim Surfac Surfac Surfac Surfac	Layer (if present): 	s: licator is suff lonriverine) verine)	ficient) ————————————————————————————————————	ates (B13) Odor (C1) heres along Living uced Iron (C4) iction in Plowed So Remarks)	Hydric So Sec Roots (C3)	Dil Present? Yes No Condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3)
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Sandy v Restrictive Type: Depth (in Remarks: YDROL(Wetland H Primary Ing Surfac High V Satura Water Sedim Drift D Surfac Inund Water Tak Saturatior (includes Describe	Layer (if present): Image: present in the second	s: licator is suff lonriverine) verine) al Imagery () Yes Yes Yes Yes am gauge, r	ficient) 	ates (B13) Odor (C1) heres along Living icced Iron (C4) iction in Plowed So Remarks)	Hydric So See Roots (C3)	bil Present? Yes No condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5) No
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Salidy v Lestrictive Type: Depth (ir Remarks: YDROLO Wetland H Primary Inc Surfac High V ✓ Satura Water Sedim Drift D Surfac Inund Water Field Obs Surface W Water Tab Saturatior (includes Describe Remarks:	Layer (if present): Layer (if present): M ₂ hylerra DGY ydrology Indicators dicators (any one inc e Water (A1) Vater Table (A2) tition (A3) Marks (B1) (Nonriv ent Deposits (B2) (Nonriv ce Soil Cracks (B6) ation Visible on Aerii -Stained Leaves (B5) tervations: /ater Present? De Present? De Present? Capillary fringe) Recorded Data (streened)	erine) Ionriverine) verine) al Imagery (1)) Yes Yes Yes am gauge, r	ficient) 	ates (B13) Odor (C1) heres along Living iced Iron (C4) iction in Plowed So Remarks)	Hydric So Sea Boots (C3) Dils (C6) Wetland Hydro ons), if available due to rece of	Dil Present? Yes No Condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)
Salidy v Lestrictive Type: Depth (ir Remarks: YDROLO Wetland H Primary Inc 	Layer (if present):	erine) Ionriverine) verine) al Imagery (1) Yes Yes am gauge, r	ficient) 	ates (B13) Odor (C1) heres along Living iced Iron (C4) inction in Plowed So Remarks)	Hydric So Sea Sea Bills (C6) Dills (C6) Wetland Hydro ons), if available due to Sea Sea Sea Sea Sea Sea Sea Sea Sea Sea	Dil Present? Yes No Condary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)

Arid Wes

WETLAND DETERMINATION DATA FORM – Arid West Region _ Sampling Date: _1 /8 /0 \$ City/County: <u>Austin/Delta</u> State: <u>CO</u> Sampling Point: <u>2 · / W</u> Project/Site: SH 92 Austin Applicant/Owner: ____CDOT 31. 145.94 W _ Section, Township, Range: ___ Local relief (concave, convex, none): <u>none</u> Slope (%): <u>O</u> Investigator(s): ____ Andy Herb Landform (hillslope, terrace, etc.): ______ Long: 107 56 27 Datum: NAO 83 38 47 19 Lat: Subregion (LRR): ____Interior Deserts PEM NWI classification: sitta day loam (If no, explain in Remarks.) Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No No_ Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? (If needed, explain any answers in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. L No is the Sampled Area Yes Hydrophytic Vegetation Present? No_ \checkmark / No_ within a Wetland? Yes Yes Hydric Soil Present? V____ No__ Remarks: Current Cneck wetlands: narrow fringe wetlad in sevend small pockets immediately adjacent to me channel. Pockets of wood vegetation Yes have no herbaceons layer; wettands on 60 Pr sides of 54 92 Most & creek, but VEGETATION Dominance Test worksheet: Absolute Dominant Indicator % Cover Species? Status Number of Dominant Species Tree Stratum (Use scientific names.) (A) That Are OBL, FACW, or FAC: 1. Total Number of Dominant (B) 2 Species Across All Strata: 3. Percent of Dominant Species 50 (A/B) That Are OBL, FACW, or FAC: Total Cover: ___ Sapling/Shrub Stratum Prevalence Index worksheet: Multiply by: Total % Cover of: 1. Π 11 ____ x1=____ 2. OBL species Ð 0 _ x2=_ FACW species 2.28 76 x3= FAC species 4 x 4 = · 1 FACU species Total Cover: x 5 = ٥ 0 UPL species 243 Herb Stratum (A) (B) FAC 88 75 Column Totals: Distichtis spicate OBL Prevalence Index = B/A = _ 2.76 10 2. Schoenoplectus pungens FAC Yanthium stramanium Hydrophytic Vegetation Indicators: OBL 4. Enthamia accidentalis Dominance Test is >50% FACH Ballia Scopenia ✓ Prevalence Index is ≤3.0¹ _ Morphological Adaptations¹ (Provide supporting 6. data in Remarks or on a separate sheet) 7. Problematic Hydrophytic Vegetation¹ (Explain) 8. Total Cover: _____88 44/18 Indicators of hydric soil and wetland hydrology must Woody Vine Stratum he present. 1. Hydrophytic Total Cover: ____ Vegetation No ____ Yes ____ Present? % Bare Ground in Herb Stratum _____12-% Cover of Biotic Crust ____ Data point on small terrace ~ 1' above others; without have weedy Remarks: perimeter; pockets of WL veg along channel -not Arid West - Version 11-1-2006

SOIL

Sampling Point: 2-1W

ofile Descr	iption: (Describe to	ane deptr		Easter	•					
epth	Matrix		Color (moist)	<u>reatures</u> %	Tvpe ¹	Loc ²	Te>	dure	Remarks	_
ches)	Color (moist)	<u></u> _			<u> </u>	M	ch	yey	Sandy clay loam	_
0-4	2.54712	-18 -	1.5 YR +10			л	-1	1-1-	p p p	
4-14	2.5 y 3/2	90	7.5 yR 4/6	10	\underline{c}			17_		-
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			Reduced Matrix	² Locatio	n: PL≕Pore	Lining, I	RC=Ro	ot Chann	el, M=Matrix.	
ype: C=Co	oncentration, D=Depr	bie to all l	RRs. unless other	wise not	ed.)		In	dicators	for Problematic Hydric Soils':	
yaric Soli i			Sandy Red	ox (S5)				_ 1 cm N	luck (A9) (LRR C)	
Histosol	(AI) ninedon (A2)		Stripped Ma	atrix (S6)			-	_ 2 cm N	luck (A10) (LRR B)	
	ietic (A3)		Loamy Muc	ky Miner	al (F1)		-	_ Reduc	ed Vertic (F18)	
	an Sulfide (A4)		Loamy Gle	yed Matri	k (F2)			_ Red Pa	arent Material (TF2)	
riyuroge Stratifice	d Lavers (A5) (LRR C	;)	V Depleted N	latrix (F3)	i.		·	_ Other	(Explain in Remarks)	
_ Stratilied 1 cm Mi	ick (A9) (LRR D)	· ·	Redox Dar	< Surface	(F6)					
_ i un viu Denlete	d Below Dark Surface	e (A11)	Depleted D	ark Surfa	ce (F7)					
	ark Surface (A12)	- x · · · /	Redox Dep	ressions	(F8)				• • • • • • • • • • • • • • • • • • •	
Sandv M	Mucky Mineral (S1)		Vernal Poo	ls (F9)			311	ndicators	of hydrophytic vegetation and	
Sandy (Gleved Matrix (S4)							wetland	nyarology must be present.	
estrictive	Layer (if present):								,	
Type										
iype							Hy	dric Soi	Present? Yes V No	
YDROLO	DGY					·		·	i la liastare (2 ar more required)	
Wetland H	ydrology Indicators	:						Seco	Matrix Marke (R1) (Riverine)	
Primary Ind	licators (any one indi	cator is suf	ficient)						Avaler Marks (B1) (Riverine)	
Surfac	e Water (A1)		Salt Crus	st (B11)						
High W	Vater Table (A2)		Biotic Cr	ust (B12)					Drift Deposits (B3) (Riverine)	
Notura	tion (A3)		Aquatic	nvertebra	ates (B13)				Drainage Patterns (B10)	
V Satura	Marke (R1) (Nonrive	rine)	Hvdroae	n Sulfide	Odor (C1)				Dry-Season Water Table (C2)	
vvater	ant Doposite (P2) /M	nriverine [\]	Oxidized	Rhizosp	heres along	y Living F	Roots ((C3)	Thin Muck Surface (C7)	
Sedim	ent Depusits (D2) (No	orine)	Presence	e of Redu	iced Iron (C	(4)			Crayfish Burrows (C8)	
Dritt D		01110/	Recent	ron Redu	ction in Plo	wed Soil	s (C6)		Saturation Visible on Aerial Imagery (C9)
Surfac	CE SOIL UTACKS (BO)	Umagen /	B7) Other (F	xplain in	Remarks)			. —	Shallow Aquitard (D3)	
Inunda	ation visible on Aeria	rimagery (I						<u> </u>	FAC-Neutral Test (D5)	
\Mater	Stained Leaves (B9)									
)								
Field Obs	ervations:) 	No. N. Darth	(inches):	÷					
Field Obs Surface W	ervations: /ater Present?	Yes	No Depth	(inches):						
Field Obs Surface W Water Tab	ervations: /ater Present? /le Present?	Yes Yes	No Depth	(inches): (inches):			lotto ne	Hudrold	vov Present? Yes 🗸 No	
Field Obs Surface W Water Tab Saturation	ervations: /ater Present? ole Present?	Yes Yes Yes	No Depth No Depth No Depth	(inches): (inches): (inches):	D		/etland	l Hydrold	ogy Present? Yes No	
Field Obs Surface W Water Tab Saturation (includes of	ervations: /ater Present? ole Present? ole Present? capillary fringe)	Yes Yes Yes	No Depth No Depth No Depth	(inches): (inches): (inches): al photos	D previous i	W	/etland ns), if a	l Hydrolo vailable:	ogy Present? Yes No	
Field Obs Surface W Water Tab Saturation (includes of Describe I	ervations: /ater Present? ole Present? ole Present? capillary fringe) Recorded Data (strea	Yes Yes Yes m gauge, r	No Depth No Depth No Depth nonitoring well, aeri	(inches): (inches): (inches): al photos	ر , previous i	nspection	/etland	I Hydrold vailable:	ogy Present? Yes No	
Field Obs Surface W Water Tab Saturation (includes of Describe I	ervations: /ater Present? ole Present? of Present? capillary fringe) Recorded Data (strea	Yes Yes Yes m gauge, r	No Depth No Depth No Depth nonitoring well, aeri	(inches): (inches): (inches): al photos	D , previous i	nspection	Vetland ns), if a	I Hydrold vailable:	ogy Present? Yes <u>No</u> No	ver
Field Obs Surface W Water Tab Saturation (includes of Describe I Remarks:	ervations: /ater Present? ole Present? or Present? capillary fringe) Recorded Data (streated)	Yes Yes Yes m gauge, r <i>†p { y</i>	No Depth No Depth No Depth nonitoring well, aeri	(inches): (inches): (inches): al photos	D , previous i	M	Vetland ns), if a 7 Cu	I Hydrold vailable:	provole hydro - o	ver
Field Obs Surface W Water Tab Saturation (includes of Describe I Remarks:	ervations: /ater Present? ole Present? ole Present? capillary fringe) Recorded Data (streated Saturated	Yes Yes Yes m gauge, r tr 54	No Depth No Depth No Depth nonitoring well, aeri	(inches): (inches): (inches): al photos	D , previous i rom Cu	mspection Flow(Vetland ns), if a 7 C	I Hydrold vailable: Met Th	promole hydro - o w/water ~1' deep	ver 4
Field Obs Surface W Water Tab Saturation (includes of Describe I Remarks:	ervations: Vater Present? De Present? Present? Capillary fringe) Recorded Data (strea Saturnfal Swys + Capi	Yes Yes Yes Im gauge, r tr 54 Ilary	No $_$ Depth No $_$ Depth No $_$ Depth nonitoring well, aeri	(inches): (inches): al photos	o , previous i form Cu anul	mspection rrank flows	Vetland ns), if a 7 Cu Sorr	I Hydrold vailable: Mek Th	provale hydro - & w/water ~1' deep y	ver 4
Field Obs Surface W Water Tab Saturation (includes of Describe f Remarks:	ervations: Vater Present? De Present? Present? Capillary fringe) Recorded Data (strea Saturated Saturated Support Capillary	Yes Yes Yes m gauge, r to su the su Cut	No Depth No Depth No Depth nonitoring well, aeri face - fl action ; banks in	(inches): (inches): (inches): al photos al photos (ows f Chav Most	D , previous i rom Cu mul i areas	nspection Inspection Flows ; ch	Vetland ns), if a 7 Cu So-	I Hydrold vailable: Mek Th el =	provide hydro - o w/water ~1' deep y cobb/e/gravel; sont	ver 4
Field Obs Surface W Water Tab Saturation (includes of Describe f Remarks:	ervations: /ater Present? ble Present? Present? capillary fringe) Recorded Data (stread) Saturated Saturated (Saturated) (D. 92- Addition)	Yes Yes Yes m gauge, r to su to su llary cut h Mor	No Depth No Depth No Depth nonitoring well, aeri face - fi action; banks in e groded	(inches): (inches): (inches): al photos al photos でいない でんない MOST	D , previous i rom Cu and i areas	mspection Flows ; ch	Vetland ns), if a 7 Cu Sa- (a M M	I Hydrold vailable: Mek Th ed =	provale hydro - o w/water ~1' deep ; cobb/e/gravel ; sont	ver 4
Field Obs Surface W Water Tab Saturation (includes of Describe I Remarks:	ervations: /ater Present? ble Present? capillary fringe) Recorded Data (stread Saturntal ows + Cap: of le ; 1-3' SA 92, Much	Yes Yes Yes m gauge, r to su to su tlany cut h Mor	No Depth No Depth No Depth nonitoring well, aeri face - fi action; banks in e eroded	(inches): (inches): al photos Cows A Chav Most	D , previous i rom Cu nul areas	м nspection flows ; ch	Vetland ns), if a t Ca San a NM	I Hydrold vailable: Mek Jh	promole hydro - or w/water ~1' deep cobb/e/gravel; south	ver 4
Field Obs Surface W Water Tab Saturation (includes of Describe I Remarks:	ervations: /ater Present? ble Present? Present? capillary fringe) Recorded Data (stread Saturated Satur	Yes Yes Yes m gauge, r to su thany cut h Morr	No Depth No Depth No Depth nonitoring well, aeri face - fi action ; banks in e evoded	(inches): (inches): al photos Cows た Chav MoSt	D , previous i form Cu mel areas	м nspection flows ; ch	Vetland ns), if a 7 Cu S S N N	I Hydrold vailable: Mek Th ed =	provale hydro - or w/water ~1' deep y cobb/c/gravel; south Arid West-Version 11-1	ver 4 h o

WETLAND DETER	VINATION DAT	A FORM – AI	rid West Region
roject/Site: SH 92 Austin	City/County	r: <u>Austin/Dell</u>	ta Sampling Date
nolicant/Owner: CDOT			State: <u>CO</u> Sampling Point. <u>Print</u>
hypoticator(s): Andy Herb	Section, To	wnship, Range:	<u>31, 143, 770</u>
andform (hillslope terrace etc.): billslope	Local relie	f (concave, conv	vex, none): <u>rohvex</u> Slope (%).
and off (Inisiope, office, end)	Lat: <u>38 47</u>	19 Lo	ong: 101 56 21 Datum: 100000
Subregion (LRN) Ailling Sitty change	am		NWI classification:
Soli Map Onit Name	time of year? Yes _	No	(If no, explain in Remarks.)
Are climatic / hydrologic container of an area si	gnificantly disturbed?	Are "No	rmal Circumstances" present? Yes No
Are vegetation, con, or Hydrology n	aturally problematic?	(If neede	ed, explain any answers in Remarks.)
Are Vegetation, Son, of Hydrology	showing sampli	na point loc	ations, transects, important features, etc.
SUMMARY OF FINDINGS – Attach site map			
Hydrophytic Vegetation Present? Yes N	• is	the Sampled Ar	rea
Hydric Soil Present? Yes N	o wit	thin a Wetland?	Yes NoV
Wetland Hydrology Present? Yes N	<u>• • • • • • • • • • • • • • • • • • • </u>	1. 11.1	And Marthe Atrialex w/
Remarks: Upland area above Cu.	rant tree	R floody	inter post of the general of
Datiali(: dry		and and a second se	
VEGETATION			De lineare Test worksheet
	Absolute Domina	nt Indicator s? Status	
Tree Stratum (Use scientific names.)	<u>78 COVEL</u> Openie		That Are OBL, FACW, or FAC: (A)
1			Total Number of Dominant
2			Species Across All Strata: (B)
3			Percent of Dominant Species GO (MD)
Total Cove	∍r:		That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum			Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
2			OBL species x 1 =
3			FACW species x 2 =
4			FAC species x 3 =
5 Total Cov	er:		FACU species X4 =
Herb Stratum	60 V	/ FAC	UPL species A0 (B)
1. Distribilis Spicata	- <u></u>	UPL	
2. Atridex conditions	2	UPL	Prevalence Index = B/A =
3. Thinspyrum inter	2	FACU	Hydrophytic Vegetation Indicators:
4. Bassin scope	<u> </u>	UPL UPL	- Dominance lest is >50%
6 lactuca serviola		- FACU	Morphological Adaptations ¹ (Provide supporting
7 Eremopyrum triticeum		<u>upl</u>	data in Remarks or on a separate sheet)
8		7	Problematic Hydrophytic Vegetation ¹ (Explain)
Total Co	ver: <u>87</u> 40	/16	
Woody Vine Stratum		· · · · · · · · · · · · · · · · · · ·	Indicators of hydric soil and wetland hydrology must
1			
2 Total Co	over:		Hydrophytic Vegetation
and in Linch Stratum 19 % Co	over of Biotic Crust	0	Present? Yes <u>No</u>
% Bare Ground in Heib Stratum /	m _ n-l-nt	and Atri	plax w/upland grasses: data
Remarks: Mixed Flood plain Vegetation	mlan 1-1-	Charles la	
point on edge of donise Att	ipiex laver	- I rosacjona	
			Arid West - Version 11-1-200
US Army Corps of Engineers		ан салана. Стала с	

Sampling Point: 2-14

Matrix Head Products Type Loc ² Texture Reg D://4 2.5 y 4/3 95 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 9 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 9 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 5 C M (dayry 5!/ty_c D://4 2.5 y 4/a 5 C M (dayry 5!/ty	
Code: (most) 30 Code: (most) 32 Code: (most) Code: (most	arks
D_1/4 2.5 y 44/3 75 21.5 y 74 y 21.5 y 2	ay
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Channel, M=Matrix. yre: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Histosol (A1) Sandy Redox (S5) I cm Muck (A9) (LRR C) Histosol (A1) Sandy Redox (S5) 2 cm Muck (A10) (LRR C) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Verici (F16) Black Histic (A3) Depleted Matrix (F2) Other (Explain in Remain 1 or Muck (A9) (LRR C) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Other (Explain in Remain 1 or Muck (A9) (LRR C) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Vernal Pools (F9) *Indicators of hydrophytic wetant hydrology must Sandy Mucky Mineral (S1) Vernal Pools (F9) *Metiand hydrology must setrictive Layer (If present): Type: Hydric Soll Present? Yes President Hydrology Indicators: Saturation (A3) Saturation (A3) YDROLOGY Secondary Indicators as undicator is sufficient) Secondary Indicators: Wetland Hydrology Indicators: Saturation (A3) Dirth Deposits (B3) High Water Table (A2) Biotic Crust (B12) </td <td>/</td>	/
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Channel, M=Matrix, rdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) Black Histic (A3) Loarny Mucky Mineral (F1) Reduced Verici (F16) Black Histic (A3) Loarny Mucky Mineral (F2) Other (Explain in Remain 1 (F2) 1 cm Muck (A9) (LRR C) Depleted Matrix (F2) Other (Explain in Remain 1 (F1) 1 cm Muck (A9) (LRR D) Red variation (F6) Other (Explain in Remain 1 (F1) 1 cm Muck (A9) (LRR D) Red variation (F2) Other (Explain in Remain 1 (F1) 1 cm Muck (A9) (LRR D) Red variation (F2) Other (Explain in Remain 1 (F1) 1 cm Muck (A9) (LRR D) Red variation (F2) Other (Explain in Remain 1 (F1) 2 sandy Mucky Mineral (S1) Vernal Pools (F3) Other (Explain in Remain 1 (F1) 2 sandy Mucky Mineral (S1) Vernal Pools (F3) Water Andra (F1) 2 sandy Mucky Mineral (S1) Vernal Pools (F2) Water Sandary (Matrix (S4) Satistic Layer (If present): Type: Hydric Soil Present? Yest Pariation Matrix Sandary (Matrix (S4) Satistic Crust (S1	·····
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Rot Channel, M=Matrix. rdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Histosoil (A1) Sardy Redox (S5) 1 cm Muck (A9) (LRR C) Black Histic (A3) Loamy Mucky Mineral (F1) Red Parent Material (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Red Parent Material (F1) Thick Dark Surface (A1) Depleted Matrix (F3) Other (Explain in Remain 1 cm Muck (A9) (LRR C) Depleted Matrix (S4) Depleted Matrix (F3) Other (Explain in Remain 1 cm Muck (A9) (LRR C) Sandy Olevyed Matrix (S4) Redox Depressions (F8) *Indicators of hydrophytic vertication in Remain 1 cm Muck (A9) (LRR C) Sandy Olevyed Matrix (S4) Wetmal Pools (F9) *Indicators of hydrophytic vertication in Remain 1 cm Muck (S4) estrictive Layer (If present): Type: Parent Pools (F3) *Indicators 1 hydrophytic vertication 1 hydrology must 1 Sund Clevyed Matrix (S4) Secondary Indicators: Year Marks (B1) Sediment Depositic 1 hydrophytic vertication 1 hydrology must 1 Stratific Layer (A1) Salt Crust (B11) Sediment Depositic 1 hydrology must 1 Secondary Indicators: YPROLOCOY Yeter Marks (B1) Sediment Depositi	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. ?Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Yee: C=Concentration, D=Depletion, RM=Reduced Matrix. ?Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Histosol (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR O) Histis (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F16) Stratified Layers (A5) (LRR O) Depleted Matrix (F2) Red Parent Material (TF Stratified Layers (A5) (LRR O) Depleted Matrix (F2) Red Parent Material (TF Tack Dark Surface (A12) Redox Dark Surface (F6) 0 ther (Explain in Rema 1 cm Muck (A9) (LRR D) Redox Dark Surface (F7) Thick Dark Surface (A12) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators of hydrophytic vertain Pools (F9) Indicators of hydrophytic vertain frame Sandy Gleyed Matrix (S4) Estrictive Layer (If present): Yee: Hydric Soil Present? Yee: Depth (inches):	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Afric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Histosol (A1) Sardy Redox (S5) 1 orm Muck (A9) (LRR O) Histis (A3) Loarny Mucky Mineral (F1) Reduced Vertic (F18) Rydrogen Sulfide (A4) Loarny Gleyed Matrix (F2) Red Parent Matrial (F1) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Other (Explain in Rema 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Other (Explain in Rema 1 cm Muck (A9) (LRR D) Redox Depressions (F6) Stratified Layers (A5) (LRR C) Peleted Matrix (F2) Sandy Mucky Mimeral (S1) Vernal Pools (F9) *Indicators of hydrophytic versions (F6) Indicators of hydrophytic versions (F6) Sandy Gleyed Matrix (S4) Extrinctive Layer (if present): Watrix (S4) wetland hydrology must iteritive soil present? Yes Type:	
ype: C-Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC=Rot Channel, M=Matrix. ydric Soil indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Histics (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Straffed Layers (A5) (LRR C) Depleted Matrix (F2) Red Parent Material (F1) Straffed Layers (A5) (LRR C) Depleted Matrix (F2) Other (Explain in Rema Straffed Layers (A5) (LRR C) Depleted Matrix (F2) Other (Explain in Rema Straffed Layers (A5) (LRR C) Depleted Matrix (F2) Other (Explain in Rema Straffed Layers (A5) (LRR C) Depleted Matrix (F2) Other (Explain in Rema Straffed Layers (A5) (LRR C) Depleted Dark Surface (F6) Other (Explain in Rema Straffed Layers (A5) (LRR C) Redox Dark Surface (F7) Princicators of hydrophytic verse Sandy Gleyed Matrix (S4) Secondary Indicators (F8) Princicators of hydrophytic verse Striped Matrix (S4) Secondary Indicators:	
Procession Control control indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Histics (A1) Sandy Redox (S5) 1 cm Muck (A9) (LRR C) Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Stratified Layers (A5) (LRR C) Depleted Matrix (S5) 2 cm Muck (A10) (LRR Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Redox Dernet Matria (F7) Thick Dark Surface (A11) Depleted Matrix (F2) Other (Explain in Rema Stratified Layers (A5) (LRR C) Redox Depressions (F8) * Sandy Gleyed Matrix (S4) Redox Depressions (F8) * Sandy Gleyed Matrix (S4) Vernal Pools (F9) * Water Marks (S1) Vernal Pools (F9) * Upbet (inches): * * Depth (inches): * * VPROLOGY Secondary Indicators: * YURA Water Table (A2) Biotic Crust (B11) Seciment Depositi (B3) Saturation (A3) Aquatic Invertebrates (B13) Drainage Pattern Saturation (A3) Aquatic Invertebrates (B13) Drainage Pattern Surface Water (A1) Presence of Reduced Iron (C4) Saturation Visible<	Ludvia Caila ³
Histosol (A1) Sandy Redox (S5) 1 em Muck (A9) (LRR C) Histic Epipedon (A2) Stripped Matrix (S6) 2 em Muck (A10) (LRR Biack Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Stratified Layers (A5) (LRR C) Depleted Matrix (F2) Red Parent Material (TF Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Rema 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Trick Dark Surface (A12) Redox Depressions (F8) * * Sandy Gleyed Matrix (S4) estrictive Layer (if present): Ype: Type:	lydric Solis :
Histic Epipedon (A2) Stripped Matrix (S6) 2 cm Muck (A10) (LRR Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F18) Stratified Layers (A5) (LRR C) Depileted Matrix (F2) Red Parent Material (TF Stratified Layers (A5) (LRR C) Depileted Matrix (F3) Other (Explain in Rema 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Other (Explain in Rema 1 cm Muck (A9) (LRR D) Redox Dark Surface (F7) Redox Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Indicators of hydrophytic ve wetland hydrology must I Sandy Gleyed Matrix (S4) wetland hydrology must I Wetland hydrology must I Exertrictive Layer (If present): Type: Hydric Soil Present? Yee Depth (Inches):	•
Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vettic (F16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Red Parent Material (TF Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Rema 1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Pelpleted Bark Surface (F7) Thick Dark Surface (A12) Redox Dark Surface (F7) Pelpleted Matrix (F3) Sandy Mucky Mineral (S1) Vernal Pools (F9) * Sandy Gleyed Matrix (S4) Vernal Pools (F9) * Beptictive Layer (if present): Type: Permary Mucky Mineral (F1) Ket and hydrology must 1 Type: Permary Indicators: Present? Yee Primary Indicators (any one indicator is sufficient) Secondary Indicators: Water Marks (B1) Surface Water (A1) Salt Crust (B11) Sediment Deposits (B3) Sturation (A3) Aquatic Invertebrates (B13) Drift Deposits (B3) Sturface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saltardion (C4) Sturation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Saltardion Visible Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saltardion Visible <	•)
Hydrogen Sulfide (A4) Loamy Gleved Matrix (F2) Red Parent Waterlai (N1) Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Remain R	2)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Other (Explain in Relna 1 1 cm Muck (A9) (LRR D) Redox Dark Surface (F7) Redox Dark Surface (F7) Depleted Below Dark Surface (A12) Redox Depressions (F8) Indicators of hydrophytic ve wetland hydrology must I Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators of hydrophytic ve wetland hydrology must I Estrictive Layer (If present): Type: Hydric Soil Present? Yes Depth (inches): Hydric Soil Present? Yes Hydric Soil Present? Yes VDROLOGY Water Marks (B1) Sat Crust (B11) Surface Water (A1) Sat Crust (B12) Water Marks (B1) Staturation (A3) Aquatic Invertebrates (B13) Drainage Pattern Water Marks (B1) (Nonriverine) Hydrogen Suifide Odor (C1) Drin Muck Surface Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Crayfish Burrows Sufface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (B7) Water Table Present? Yes No Depth (inches): Saturation Visible on Aerial Imagery (B7) Sufface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (B7)	-) (e)
1 cm Muck (A9) (LRR D) Redox Dark Surface (F6) Depleted Below Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Dapressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Mucky Mineral (S1) Vernal Pools (F9) Bepticitive Layer (if present): Hydric Soil Present? Yes Depth (inches): Hydric Soil Present? Yes Depth (inches): Hydric Soil Present? If yes YDROLOGY Water Marks (B1) Stardace Water (A1) Salt Crust (B11) Surface Water (A1) Salt Crust (B12) Hydrogen Sufficient) Water Marks (B1) Sturface Water (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Suffde Odor (C1) Surface Soil Cracks (B6) Recent Iron Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduced Iron (C4) Surface Water Present? Yes No Mater Table Present? Yes No Surface Water Present? Yes No Surface Water Present? Y	(3)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Sandy Cleyed Matrix (S4) Vernal Pools (F9) testrictive Layer (if present): Hydric Soil Present? Yes Type: Hydric Soil Present? Yes Depth (inches): Hydric Soil Present? Yes Vernarks: Same gravel mixed into grofilt; no different layers; No hy VDROLOGY Secondary Indicators: Primary Indicators (any one indicator is sufficient) Secondary Indicators Sturation (A3) Aquatic Invertebrates (B13) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Sturate Water (A1) Satifice Advice Arbitogenese along Living Roots (C3) Sediment Deposits (B3) (Nonriverine) Hydrogen Suifide Odor (C1) Sturation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water Table Present? Yes No Joepth (inches): Wettand Hydrology Present? Yes Sufface Odor (C4) Shallow Aquitard Sturate Reade Case (B9) Depth (inches): Field Observations: No </td <td></td>	
Thick Dark Surface (A12) Redox Depressions (F8) Indicators of hydrophytic versions (F8) Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators of hydrophytic versions (F8) Sandy Gleyed Matrix (S4) wetland hydrology must I testrictive Layer (If present): Hydric Soil Present? Yes Type: Hydric Soil Present? Yes Depth (inches): Hydric Ators YDROLOGY Yetand Hydrology Indicators: Yuriace Water (A1) Salt Crust (B11) Surface Water (A1) Solit Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Water Present? Yes Water Table Present? Yes Water Table Present? Yes Yes No Depth (inches): Wetland Hydrology Present? Yes Mater Ators (B1) Depth (inches): Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Depth (inches): </td <td></td>	
Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators of hydrophydr verwettand hydrology must indicators of hydrology must indicators of hydrology must indicators (any one indicators is sufficient) YDROLOGY Hydric Soil Present? Yes YDROLOGY Secondary Indicators: Yutar Abits Saturation (A3) Aquatic Invertebrates (B13) Drainage Pattern Diff Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface Surface Soil Cracks (B6) Recent fron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes Surface Fresent? Yes No Depth (inches): Wetland Hydrology Present? Yes Surface Soil Cracks (B6) Recent fron Reduction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard Water Table Present? Yes No Depth (inches):	notation and
Hydric Soil Present? Yes Type:	e present.
Type: Hydric Soil Present? Yes Depth (inches):	
Depth (inches): Hydric Soil Present? Yes termarks: Sme gravel mixed into profile; no distinct layers; No h; indicators	
Depth (incres):	NO
YDROLOGY Secondary Indicators: Primary Indicators (any one indicator is sufficient)	· · ·
Wetland Hydrology Indicators.	2 or more required)
Surface Water (A1)	(Riverine)
Surface Water (A1)	s (B2) (Riverine)
High Water Table (A2) Blotte Crust (B12) Drainage Pattern. Saturation (A3) Aquatic Invertebrates (B13) Dry-Season Water Water Marks (B1) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Roots (C3) Thin Muck Surface Drift Deposits (B3) (Nonriverine) Oxidized Rhizospheres along Living Roots (C6) Crayfish Burrows Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Saturation Visible Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Shallow Aquitard Water-Stained Leaves (B9) Depth (inches):	(Riverine)
 Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Depth (inches): Saturation Present? Yes No Depth (inches): Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturat	(B10)
 Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes No Saturation Present? Yes No	Table (C2)
 Sediment Deposits (B2) (Nonriverine) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Saturation Present? Saturation Present? Yes No Depth (inches): Saturation Present? Saturation Present? Saturatio	e (C7)
 Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Saturation Present?	(C8)
Surface Soil Cracks (B6)	on Aerial Imagery (C
Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks)Shallow AduitationShallow AduitationAduitationAduitationAduitationAduitationAduitationAduitationAduitationAduitationAduitationAduitationAduitationAduitationAduitation	(D3)
	(D3) (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	(D5)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Water Table Present? Yes No Depth (inches): Wetland Hydrology Present? Y Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Y (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Saturation Present? Yes NO Depth (includes) (includes capillary fringe) (includes capillary fringe) Depth (includes, previous inspections), if available: Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	s No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Kemarks: No hydrology indizators	
/ Latura	
US Army Corps of Engineers	lest - Version 11-1-2

	City/Cour	w Austin/D	Sampling Date: 2/29/01
roject/Site: <u>SH 92 Austin</u>	City/Court	ty	State: CO Sampling Point: 6-3 W
pplicant/Owner: <u>CDOT</u>	Conting 1	ownship Ranc	27 145 94W
vestigator(s): <u>Andy Herb</u>	Section, 1	ownship, rang	none Slope (%): O
andform (hillslope, terrace, etc.):			Long: 107 52 47 Datum: Ntl)83
ubregion (LRR): <u>Interior Deserts</u>	Lat: <u>78</u>		Long. <u>PEM</u>
oil Map Unit Name: <u>Chipera S. My a</u>	ky	/	
re climatic / hydrologic conditions on the site typical fo	r this time of year? Yes _	No	(If no, explain in Remarks.)
re Vegetation, Soil, or Hydrology	significantly disturbed	? Are "N	Iormal Circumstances" present? Yes No
re Vegetation, Soil, or Hydrology	naturally problematic?	? (If nee	ded, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site m	ap showing sampli	ing point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	_ No Is _ No wi _ No	the Sampled /	Area d? Yes <u>No</u>
Remarks: Narrow fringe wetland	along Das.3	Ditch	- extends to both sides
84 Stt 92			
/EGETATION			
	Absolute Domina	ant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Use scientific names.) 1			Number of Dominant Species / (A) That Are OBL, FACW, or FAC:
2			Total Number of Dominant (B)
4.			Percent of Dominant Species
Total C	Cover:		That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum			Prevalence Index worksheet:
1	<u></u>		Total % Cover of: Multiply by:
2			OBL species x 1 =
A			FACW species x 2 =
5			FAC species x 3 =
Total (Cover:	, i	FACU species × 4 =
Herb Stratum	I.F. J	ER I	UPL species x 5 =
1. Phalan's annamacca	<u> </u>	FAC	Column Totals: (A) (B)
2. Disticulis spicata		OBL	Prevalence Index = B/A =
3. Liconaris participito		FACU	Hydrophytic Vegetation Indicators:
4. <u></u>			Dominance Test is >50%
6			Prevalence Index is ≤3.0 ¹
7.			Morphological Adaptations' (Provide supporting
8Total	Cover: 96 48	119	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum			¹ Indicators of hydric soil and wetland hydrology must
2		; <u></u>	Hydrophytic
% Para Cround in Herb Stratum 4 %	Cover of Biotic Crust	0	Present? Yes <u>No</u>
Remarks: Narrow Mirge wetter	I along Da	sis Dite	h; Masthy Phalans; Mosthy
weedy personation v/ Acr	optilon, Bassia	, Thing	syrum + Atriplex.
		: · · · ·	
		- <u> </u>	Arid West – Version 11-1-2006

US Army Corps

Matrix Redox Features Depth Matrix Redox Features $(inches)$ Color (moist) % Type ¹ Loc ² $0-5$ $2.5 \vee 4/2$ /070	Texture Remarks Clayey Gilfy clay clayey n clayey n n clayey n n n clayey n n n n
hepthMatrixReduct Color (moist)nches)Color (moist)%Type1 $0-5$ $2.5 \vee 4/2$ $/00$ $5-9$ $2.5 \vee 4/2$ 98 $2.5 \vee 5/6$ 2 $9-/6$ $2.5 \vee 3/1$ $/00$ $9-/6$ $2.5 \vee 3/1$ $/00$	Texture Remarks Clayey Gilfy clay clayey """"""""""""""""""""""""""""""""""""
$\frac{1}{2.5 \vee 4/2} \frac{1}{200}$ $\frac{5-9}{2.5 \vee 4/2} \frac{2.5 \vee 5/6}{100} \frac{2}{2} C M$ $\frac{9-1/6}{2.5 \vee 3/1} \frac{100}{100}$ $\frac{1}{2.5 \vee 3$	Clayey Clayey clayey """"""""""""""""""""""""""""""""""""
$\begin{array}{c ccccc} \hline 0-S & 2.5 & \sqrt{4/2} & 78 & 2.5 & \sqrt{5/6} & 2 & C & M \\ \hline 5-9 & 2.5 & \sqrt{3/1} & 700 & & & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & 700 & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt{3/1} & \sqrt{3/1} & \sqrt{3/1} & & \\ \hline 9-76 & 2.5 & \sqrt{3/1} & \sqrt$	clayey """"""""""""""""""""""""""""""""""""
5-9 2.5 y 3/1 98 2.5 y 5/6 2 4 9-/6 2.5 y 3/1 100	clayey """"""""""""""""""""""""""""""""""""
9-/6 2.5 y 3/1 /b0	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC lydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC lydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC lydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC lydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC Iydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC Iydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Lining, RC Iydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	C=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Lucation: PL-P oro Linning; PL-P lydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Hydric Soil Indicators: (Applicable to all LRRs, unless outletwise fields) Histosol (A1)	1 cm Muck (A9) (LRR C) 2 cm Muck (A10) (LRR B)
Histosol (A1) Sandy Redox (S5) Histic Epipedon (A2) Stripped Matrix (S6) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	2 cm Muck (A10) (LRR B)
Histic Epipedon (A2) Stipped Matrix (60) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	
Black Histic (A3) Loamy Gleyed Matrix (F2)	L Reduced Vertic (F18)
Hydrogen Sulfide (A4)	Red Parent Material (TF2)
Our title of Levers (A5) (LRR C) V Depleted Mater (F3)	Other (Explain in Remarks)
Stratified Layers (A0) (LRK C) Redox Dark Surface (F6)	
1 cm Muck (A9) (LNN D) Depleted Dark Surface (F7)	
Thick Dark Surface (A12) Redox Depressions (F8)	a statute to the time partition and
Sandy Mucky Mineral (S1) Vernal Pools (F9)	Indicators of hydrophytic vegetation and
Sandy Mucky Minora (19)	wetland hydrology must be present.
Restrictive Laver (if present):	
	Hydric Soil Present? Yes No
IYDROLOGY	Secondary Indicators (2 or more required)
Wetland Hydrology Indicators:	Motor Marks (B1) (Riverine)
Primary Indicators (any one indicator is sufficient)	Vvaler Marks (B1) ((Vverine)
Surface Water (A1) Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2) Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (02)
Sodiment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Ro	oots (C3) Thin Muck Surrace (C7)
Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Diff Deposits (Bo) (Rominscrift) Recent Iron Reduction in Plowed Soils ((C6) Saturation Visible on Aerial Imagery (C
	Shallow Aquitard (D3)
	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations:	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Depth (inches):	
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Water Table Present? Yes No Depth (inches): Depth (inches): 12 Water Table Present? Yes Via Depth (inches): Surface Water Table Present? Yes Via Depth (inches): Yes Yes	tland Hydrology Present? Yes No
	tland Hydrology Present? Yes No
	etland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Use No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	itland Hydrology Present? Yes No
Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks)Water-Stained Leaves (B9) Field Observations: Surface Water Present? YesNoDepth (inches):Water Table Present? YesNoDepth (inches):Water Table Present? YesNoDepth (inches):Wei	i), if available:
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): 12 Water Table Present? Yes No Depth (inches): 12 Saturation Present? Yes No Depth (inches): 5 Weil (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections; Remarks: Free water at 12" after 5 minutes; Capillary fringe;	Hand Hydrology Present? Yes No i), if available: 1/am action from Dasi3 Dite
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Were (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) Remarks: Free worker at 12" after 5 minutes; Capillary for 5 minutes	etland Hydrology Present? Yes No i), if available: 1/any action from Dasi3 Dite entry water Flowing ~ 4'
Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface Water Present? YesNoDepth (inches): Water Table Present? YesNoDepth (inches): Saturation Present? YesNoDepth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) Remarks: Free water at 12" after 5 minutes; Capil D.tch recently danalyzed; flors conth; curr	etland Hydrology Present? Yes No i), if available: 1/ong action from Oasi3 Dite entry water Flowing ~ y'
Inundation Visible on Aerial Imagery (B7)Other (Explain in Remarks) Water-Stained Leaves (B9) Field Observations: Surface Water Present? YesNoDepth (inches): Water Table Present? YesNoDepth (inches): Saturation Present? YesNoDepth (inches): Wer (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections) Remarks: Free water at 12" after 5 minutes; Capillary for the mathematical stream gauge of the stream for the stre	etland Hydrology Present? Yes No i), if available: 1/ong action from Oasis Dite entry water Flowing ~ 4'

Arid West – Version 11-1-2006

upice CH 02 Austin	City	/County: <u>A</u>	stin/Delta		Sampling Date	<u>= 2/29</u>	1/08
oject/Site: <u>SH 92 Austin</u>			S	tate: <u>CO</u>	Sampling Poir	nt: <u>le - 3</u>	u
oplicant/Owner: <u>CDO1</u>	Sec	tion. Township	, Range:	27.145.	94W		
vestigator(s): <u>Andy Hero</u>		al relief (conca	ve, convex,	none):	ave	Slope (%): _	2
andform (hillslope, terrace, etc.):	Lat: 38 4	89	Lona:	107 52	<u>47</u> D	atum: <u>NA</u>	083
ubregion (LRR):Interior Deserts	Lat. <u></u>			NWI classifi	cation:		
oil Map Unit Name:	1	Yes V		(If no, explain in F	Remarks.)		
re climatic / hydrologic conditions on the site typical for	this time of year?	res <u>v</u> i	A ro "Norma	Circumstances"	nresent? Yes	No No	
re Vegetation, Soil, or Hydrology	significantly dis		(if readed	explain any answ	ers in Remarks	.)	
re Vegetation, Soil, or Hydrology	naturally proble	matic	(II needed,		imnortani	' t foatures	s etc.
SUMMARY OF FINDINGS – Attach site ma	ap showing sa	ampling pol	nt locatio	ons, transect			
Hydrophytic Vegetation Present? Yes	No	Is the Sam	pled Area				
Hydric Soil Present? Yes	No	within a W	etland?	Yes	No	v	
Wetland Hydrology Present? Yes	<u>No</u>		1.17	Dital · al	ine the	I has	T
Remarks: Small pocket of hydro	phytic veg	below	Casis	una, pu		~, , , , , , , , , , , , , , , , , , ,	~1
area likely receives flows	when col	vert ur	my >	172 C/a]1		
/	, 						
/EGETATION	Absolute [Dominant Indic	ator Don	ninance Test wo	ksheet:		
Tree Stratum (Use scientific names.)	% Cover	Species? Stat	Num	ber of Dominant	Species	3	(A)
1					, of PAC		(,,)
2			Tota	al Number of Dom	inant rata:	5	(B)
3			Ope				. ,
4 Total C			Pere	cent of Dominant t Are OBL, FACW	Species /, or FAC:	60	(A/B)
Sapling/Shrub Stratum					arkeheet:		
1			Pre	Total % Cover of	M	ultiply by:	
2		· · · · · · · · · · · · · · · · · · ·		species			
3			61	CW species	x 2 =		
4			FAG	C species	x 3 =		
5 Total (FAG	CU species	x 4 =		
Herb Stratum		1		species	x 5 =		—
1. Bronne interns.3			Col	umn Totals:	(A)	<u></u>	(B)
2. Phalonz anintinalea			SL 01	Prevalence ind	ex = B/A =		
3. Thingymm intermedium			HV	drophytic Vegeta	tion Indicator	s:	
4. Muhlenbergia asperforra		10	34 -	Dominance Test	is >50%		
5. Juncus bactoria	5	U	PL_	Prevalence Inde	x is ≤3.0 ¹		
- Dichilli coilata	5	F	AC _	Morphological A	daptations ¹ (Pr	ovide suppo	orting
a Automing meinsa		Ē/	tew	data in Rema	Ironhytic Veget	ation ¹ (Expl	ain)
Total	Cover:	35/14		Problematic Hyd			
Woody Vine Stratum			¹ In	dicators of hydric	soil and wetlan	d hydrology	must
1	· · · · · · · · · · · · · · · · · · ·		be	present.			
2	Cover		Hv	drophytic	/		
10121	00ver	ð	Ve	getation	Yes 🗸	No	
% Bare Ground in Herb Stratum%	Cover of Blotic Cr	ust	<u> </u>				
Remarks: C al L + C	the budro	phytoz 1	legetar	son at	top of.	stope	
Mall pocked of Mos	in the second						
how Dalis Ditche of Mos	Ivent	viceto	tel				
blow Das. 3 Ditch; ven	, diversity	vegeto	n				

Sampling Point: 6-34

enth	Matrix	•	Redo	x Features				·	
nches)	Color (moist)		Color (moist)	<u>%</u> _T	vpe ¹	Loc ²		Remarks	
0-12	2.544/2	100					<u>clayey</u>	heavy clay	
12-16	2.544/2	98	515/4	2	C	<u>m</u>	clayey	11 11	
	······································								
<u></u>			-						
		· · · · ·							<u> </u>
		· · · · · · · · · · · ·						· · · · · · · · · · · · · · · · · · ·	
vpe: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix.	² Location: F	PL=Pore I	ining, F	C=Root Chan	nel, M=Matrix.	•
dric Soil	Indicators: (Application)	able to all l	_RRs, unless othe	erwise noted.)		Indicators	for Problematic Hydric Solis	•
Histosol	I (A1)		Sandy Rec	lox (S5)					
_ Histic E	pipedon (A2)		Stripped N	latrix (S6)				AUCK (A10) (LRR B)	
Black H	istic (A3)		Loamy Mu	cky Mineral (F	-1)			erent Material (TE2)	
_ Hydroge	en Sulfide (A4)		Loamy Gle	yed Matrix (F	2)			(Evoloin in Remarks)	
_ Stratifie	d Layers (A5) (LRR 0	3)	Depleted	Aatrix (F3)				(Explain in Remarks)	
_ 1 cm M	uck (A9) (LRR D)	۰.	Redox Da	k Surface (F6	5) 				
_ Deplete	d Below Dark Surfac	e (A11)	Depleted I	Dark Surface	(F7)				
_ Thick D	ark Surface (A12)		Redox De	pressions (F8)		3	at hudron budio versistion and	
_ Sandy I	Mucky Mineral (S1)		Vernal Po	ols (F9)			"Indicators	or nyoropnytic vegetation and	
_ Sandy (Gleyed Matrix (S4)						wetland	hydrology must be present.	
estrictive	Layer (if present):		2. A. (1997)						
Туре:									
Denth (ir	nches):		· · · · ·		1		Hydric Soi	Present? Yes No	
YDROLO	DGY								
Vetland Hy	ydrology Indicators:						Seco	ndary Indicators (2 or more requ	ured)
rimary Ind	icators (any one indic	<u>ator is suffi</u> :	cient)					Valer Marks (BT) (Riverine)	20)
Surface	e Water (A1)		Sait Cru	st (B11)	· · · ·		<u></u>		ie)
High W	/ater Table (A2)		Biotic Cr	ust (B12)				Drift Deposits (B3) (Riverine)	
Satura	tion (A3)		Aquatic	Invertebrates	(B13)			Drainage Patterns (B10)	
Water	Marks (B1) (Nonrive	rine)	Hydroge	n Sulfide Odd	r (C1)		· · ·	Dry-Season Water Table (C2)	
Sedim	ent Deposits (B2) (No	onriverine)	Oxidized	I Rhizosphere	s along L	iving Ro	oots (¢3) '	Thin Muck Surface (C7)	
	enosits (B3) (Nonrive	rine)	Presenc	e of Reduced	Iron (C4)			Crayfish Burrows (C8)	
	e Soil Crocks (B6)		Recent	ron Reduction	n in Plowe	d Soils	(C6)	Saturation Visible on Aerial Imag	gery (C
Sunac	e Soli Ciacks (BO)	Imagani /D	7) Other (E	volain in Rem	arks)			Shallow Aquitard (D3)	
Inunda	tion Visible on Aerial	Imagery (B			anoj			FAC-Neutral Test (D5)	
Water-	Stained Leaves (B9)					<u> </u>			····
Field Obse	ervations:								
Surface Wa	ater Present?	Yes	No V Depth (inches):		-			
Nater Tabl	e Present?	Yes	No 🗹 🖌 Depth (inches):		- 1			/
Saturation	Present?	Yes	No V Depth	inches):	:	We	tland Hydrolo	gy Present? Yes No	o <u> </u>
(includes c	apillary fringe)		-						,
	ecorded Data (strear	n gauge, m	onitoring well, aeri	al photos, pre	vious insp	pections), it available:		
Describe R								no de a la la	
Describe R								WALLEY WALKER	
Describe R Remarks:	No hidrol	194 iv	licators -	- area	like	ly .	receives		
Describe R Remarks:	No hydrol	197 iv	licators -	- area	like	ly,	receives		
Describe R Remarks:	No hydroli lvert und	ogy iv w st	licators -	- area	like Clogg	ed ed	receives		
Describe R Remarks:	No hydroli lvert und	ogy iv w st	licators - Hg2 beca	- area	like Clogg	ed	receives		
Describe R Remarks: [Jw]	No hydroli lvert und	ogy iv w st	licators - 492 beca	- area	like Clogg	ed	receives		
Remarks:	No hydroli lvert und	ngy iv w st	licators - 492 beca	- area	like Clogg	ed	receives		
Describe R Remarks: [/w/	No hydroli lvert und	ngy iv st	licators - 492 beca	- area	like Clogg	ed	receives	Arid West - Version	11-1-2

	011.10h	r Austin/Delta	Sampling Date: 2/24/07
ct/Site: <u>SH 92 Austin</u>	City/County	. <u>Austin/Deitu</u>	State: CO Sampling Point: 6-6W
cant/Owner: <u>CDOT</u>	Section T	ownship, Range:	26, 145, 94W
stigator(s): <u>Andy Herb</u>	Geolon, in	of (concave, conve	ex, none): <u>Concave</u> Slope (%): <u>2</u>
form (hillslope, terrace, etc.):	Lot 38 48	10 Lon	ig: 107 52 42 Datum: NAD 83
egion (LRR): <u>Interior Deserts</u>	Lat. <u></u>		NWI classification:
Map Unit Name: <u>Aquic Ivallary</u>	ias	No	(If no, explain in Remarks.)
climatic / hydrologic conditions on the site typic	al for this time of years res_	Are "Norm	nal Circumstances" present? Yes No
Vegetation, Soil, or Hydrology _	significantly distributed	(If needed	d, explain any answers in Remarks.)
Vegetation, Soil, or Hydrology		na noint loca	tions transects, important features, etc.
MMARY OF FINDINGS – Attach site	e map showing sampli		
release to Vegetation Present? Yes	No Is	the Sampled Are	a
vdric Soil Present? Yes	<u></u>	thin a Wetland?	Yes No
Vetland Hydrology Present? Yes	<u>No</u>	0 1 6	Har, not of oreater
emarks: Jarre PEM wetland	port extends no	with or si	terrented by Stt 92;
Indered bulch ford plain	wetlands; wetla	nt has be	in monghes of
Use Data Point 6-94 for	ruplands into.	· · · · · · · · · · · · · · · · · · ·	
GETATION	V		increa Test worksheet
	Absolute Domina	ant Indicator D	ominance rest workshoet.
ree Stratum (Use scientific names.)	<u>/// COVCI</u> OPDONO		hat Are OBL, FACW, or FAC: (A)
		т	otal Number of Dominant
		s	Species Across All Strata:
		F	Percent of Dominant Species $/ \partial \mathcal{D}$ (A/B)
Т	otal Cover:		hat Are OBL, FACW, of FAC.
Sapling/Shrub Stratum	<u> </u>	F	Prevalence Index worksheet:
			Total % Cover of: Multiply by.
3			DBL species
4			FAC species x3 =
5			FACU species x 4 =
	Total Cover:	1	UPL species x 5 =
Herb Stratum	<u>80 V</u>	TACW	Column Totals: (A) (B)
Dittalis spicata	10	FAC	Prevalence Index = B/A =
3. Cirsium arvense	5	- FACU	Hydrophytic Vegetation Indicators:
4. Autoping speciesa			Dominance Test is >50%
5			Prevalence Index is ≤3.0 ¹
6			Morphological Adaptations ¹ (Provide supporting
7			Broblematic Hydrophytic Vegetation ¹ (Explain)
8	Total Cover: 96 49	1/19	
Woody Vine Stratum	Same and the second		¹ Indicators of hydric soil and wetland hydrology must
1			be present.
2	Tatal Cover		Hydrophytic
		0	Vegetation Present? Yes No
/ //	% Cover of Biotic Crust		I woth and it there area
% Bare Ground in Herb Stratum 4		- contract	A to hearter and of heart
% Bare Ground in Herb Stratum4 Remarks: / arm, we thank interre-	epted by SH 92 -		A C. and the +L
8 Bare Ground in Herb Stratum4 Remarks: Large wetland intern.	estad by Stt 92 - 14 tectornom, Delen	rahia pinr	mate, Bassia scopensa, thremopyr
% Bare Ground in Herb Stratum Remarks: Large wetland intere- Wirdy perimeter - Bromin	estad by SH 92 - 15 tectorum, Deren	ramia pine	nta, Bassia scopensa, thremopyr

Sampling Point: 6-6W

.11							
·IL			needed to document the ind	licator or conf	firm the a	bsence of i	ndicators.)
ofile Descripti	ion: (Describe	to the depth	needed to document the ma				
epth	Matrix		Redox Features	Type ¹ Loc ²	Те	kture	Remarks
nches)	Color (moist)	%		<u> </u>		lav	
0-6 2	2.544/2	100				7- -	· · · · · · · · · · · · · · · · · · ·
	r uh	40	• _ •	·		ay	
9-16 1						lav	
2	.5y 4/1	60					
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· ·							
· · · · · · · · · · · · · · · · · · ·							M=Matrix
ype: C=Conc	entration, D=De	pletion, RM=	Reduced Matrix. ² Location:	PL=Pore Linir	ig, RC=RC In	dicators fo	r Problematic Hydric Soils ³ :
ydric Soil Indi	icators: (Applie	cable to all L	RRs, unless otherwise noted	a.)		1 om Mu	
Histosol (A1	1)		Sandy Redox (S5)				(A = 0) (LINE C)
Histic Enipe	, edon (A2)		Stripped Matrix (S6)		-		
_ Rlack Histic	(A3)		Loamy Mucky Mineral	(F1)		_ Reduced	
	Sulfide (A4)		Loamy Gleyed Matrix ((F2)	_	_ Red Pare	
_ nyarogen S		C)	Depleted Matrix (F3)			_ Other (E	xplain in Remarks)
Stratified La	ayers (A5) (LKR	0)	Redoy Dark Surface (F	-6)	_		
1 cm Muck	(A9) (LRR D)	, . '	Desisted Dark Surface (I	-/ (F7)			
_ Depleted B	elow Dark Surfa	ce (A11)	Depleted Dark Surface	(F/)			
Thick Dark	Surface (A12)		Redox Depressions (F	8)	3	. dia stars of	budrophytic vegetation and
Sandy Muc	kv Mineral (S1)		Vernal Pools (F9)		-	ndicators of	hydrophytic vegetation and
Gandy Muo	und Matrix (S4)					wetland h	ydrology must be present.
Sandy Gley	ver (if present):			•			1
	yer (il procom).						
Type:					н	dric Soil P	resent? Yes <u>V</u> No
Depth (inche	es):						
redox	features features	obs.	6p 1000 June 0		-; 50		
redox	features	obs.	6P 1000 June 0		;)~		
redox IYDROLOG	features reatures	o 65.	op room rank o		-; Ja		less Indiastors (2 or more required
redux YDROLOG Wetland Hydro	peatures Protocology Indicator	o 65.	op room rank o		- j)ou	Second	lary Indicators (2 or more required
YELS Y YELS Y YDROLOG Wetland Hydro	kotures kotures	o bs.	icient)		- ;)a-	<u>Secono</u>	lary Indicators (2 or more required ater Marks (B1) (Riverine)
۲۰۱ ۲۰۵۵ ۲ YDROLOG Wetland Hydro Primary Indicat	y ology Indicator tors (any one inc	s:	icient)		- ;)a-	<u>Second</u> W	<u>lary Indicators (2 or more required</u> ater Marks (B1) (Riverine) diment Deposits (B2) (Riverine)
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YDROLOG Wetland Hydr Primary Indica Surface W High Water Saturation Water Mai Sediment Drift Depo Surface S Inundatior Water-Sta Field Observa Surface Water Saturation Pre (includes capi Describe Reco	Y ology Indicator tors (any one ind /ater (A1) or Table (A2) (A3) rks (B1) (Nonriv Deposits (B2) (Nonriv coil Cracks (B6) n Visible on Aeria and Leaves (B5) ations: r Present? Desent Desent	rerine) Nonriverine) verine) al Imagery (E 9) Yes Yes Yes Yes Al (1 o z im	icient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrate Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti B7)Other (Explain in Redu	es (B13) dor (C1) pres along Livin ed Iron (C4) ion in Plowed S emarks) 12 0 revious inspec tes ; hy realer	wetlanc tions), if a Cawha	Second Wa Se Dr Dr Dr Dr C3) Th C3) Th C3 Si Si Si Si Si Si Si Si Si Si Si Si Si	Iary Indicators (2 or more required ater Marks (B1) (Riverine) idiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery hallow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes No ownshed Ly high Jub Much Muschanger Marked Ly high
Vetland Hydro Primary Indicat Surface W High Water Saturation Water Man Sediment Drift Depo Surface S Inundatior Water-Stat Field Observa Surface Water Water Table F Saturation Pre- (includes capi Describe Reco	Y ology Indicator tors (any one ind /ater (A1) or Table (A2) (A3) rks (B1) (Nonriv Deposits (B2) (Nonriv coil Cracks (B6) n Visible on Aeria and Leaves (B5) ations: r Present? esent? esent? illary fringe) orded Data (streen) 	rerine) Nonriverine) verine) al Imagery (E 9) Yes Yes Yes Yes am gauge, m af 12 a(f o z im	icient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrate Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti B7)Other (Explain in Reducti B7)	is (B13) dor (C1) bres along Livin ed Iron (C4) ion in Plowed S emarks) 12 0 revious Inspec tes ; hy realer	wetlanc tions), if a Cawha	Second Wa Se Dr Dr Dr Dr C3) Th C3) Th C3 Si Si Si Si Si Si Si Si Si Si Si Si Si	Iary Indicators (2 or more required ater Marks (B1) (Riverine) idiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery hallow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes No owndul Ly high Jub Might
Vetland Hydr Primary Indica Surface W High Water Saturation Water Mail Sediment Drift Depo Surface S Inundatior Water-Sta Field Observa Surface Water Water Table F Saturation Pre- (includes capi Describe Reco	Y ology Indicator tors (any one ind /ater (A1) or Table (A2) (A3) rks (B1) (Nonriv Deposits (B2) (Nonriv coil Cracks (B6) n Visible on Aeria and Leaves (B5) ations: r Present? Desent Des	rerine) Nonriverine) verine) al Imagery (E 9) Yes Yes Yes Yes am gauge, m af 12 a(f o z im	icient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrate Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti B7)Other (Explain in Ref Recent Iron Reducti B7)Other (Explain in Ref Recent Iron Reducti B7)Other (Explain in Ref Recent Iron Reducti Recent Iron Reducti 	is (B13) dor (C1) bres along Livin ed Iron (C4) ion in Plowed S emarks) 12 0 revious Inspec tes ; hy realer	mg Roots (Soils (C6) Wetland tions), if a (dwb) Cawha	Second Wa Se Dr Dr Dr Dr C3) Th C3) Th C3 Si Si Si Si Si Si Si Si Si Si Si Si Si	Iary Indicators (2 or more required ater Marks (B1) (Riverine) idiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery hallow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes No ownshall Ly high Jub Mich Mussipham
Vetland Hydre Primary Indicat Surface W High Water Saturation Water Mater Saturation Water Mater Saturation Water Mater Saturation Water Stater Surface Water Vater Table F Saturation Pre- (includes capi Describe Record Remarks:	V ology Indicator tors (any one ind /ater (A1) or Table (A2) (A3) rks (B1) (Nonriv Deposits (B2) (Nonriv coil Cracks (B6) n Visible on Aeria and Leaves (B5) ations: r Present? Desent Des	rerine) Nonriverine) verine) al Imagery (E 9) Yes Yes Yes Yes am gauge, m af 12 a({ s c image)	icient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrate Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti B7)Other (Explain in Reducti B7)	is (B13) dor (C1) bres along Livin ed Iron (C4) ion in Plowed S emarks) 12 0 revious Inspec tes ; hy realer	ng Roots (Soils (C6) Wetland tions), if a	Second Wa Se Dr Dr Dr C3) Th C1 Si Si Si Si Si Si Si Si Si Si Si Si Si	Iary Indicators (2 or more required ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery hallow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes No
Yedo Y YDROLOG Wetland Hydr Primary Indica Surface W High Wate Saturation Water Mai Sediment Drift Depo Surface S Inundatior Water-Sta Field Observa Surface Water Vater Table F Saturation Pre (includes capi Describe Reco	V ology Indicator tors (any one ind /ater (A1) or Table (A2) (A3) rks (B1) (Nonriv Deposits (B2) (Nonriv coil Cracks (B6) n Visible on Aeria and Leaves (B5) ations: r Present? Desent Desent	rerine) Nonriverine) verine) al Imagery (E 9) Yes Yes Yes Yes am gauge, m af 12 a (s c im	icient) Salt Crust (B11) Biotic Crust (B12) Aquatic Invertebrate Hydrogen Sulfide Oc Oxidized Rhizosphe Presence of Reduce Recent Iron Reducti B7)Other (Explain in Ref Recent Iron Reducti B7)Other (Explain in Ref Recent Iron Reducti B7)Other (Explain in Ref Recent Iron Reducti Recent Iron Reducti 	is (B13) dor (C1) bres along Livin ed Iron (C4) ion in Plowed S emarks) 12 0 revious Inspec tes ; hy realer	ng Roots (Soils (C6) Wetland tions), if a	Second Wa Se Dr Dr Dr C3) Th C1 Si Si Si Si Si Si Si Si Si Si Si Si Si	Iary Indicators (2 or more required ater Marks (B1) (Riverine) idiment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) ainage Patterns (B10) y-Season Water Table (C2) in Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery hallow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes No Ach Muschplain Arid West - Version 11-

WEILAND DETER				2/2010
iect/Site: SH 92 Austin	City/County: <u>Au</u>	ustin/Delta	Sampling Da	te: $2/23/2$
blicant/Owner: CDOT		St	ate: <u>CO</u> Sampling PC	Int
estigator(s): Andy Herb	Section, Township	o, Range:	20, 12, 17 m	
dform (hillslope terrace etc.); Dynession	Local relief (conca	ave, convex,	none): <u>None</u>	Slope (%):
aragion (LBR): Interior Deserts	_ Lat: <u>38 48 8</u>	Long:	107 52 36	Datum:
Man Hain Name: Aquic Matrargids	- 		NWI classification:	<u>pem</u>
Thap Onit Name.	s time of year? Yes N	No ((If no, explain in Remarks.)	
	significantly disturbed?	Are "Normal	Circumstances" present? Ye	s No
Vegetation, Soli, or Hydrology	naturally problematic?	(If needed, e	explain any answers in Remark	s.)
Vegetation, Soil, or Hydrology	showing sampling poi	int locatio	ons, transects, importa	nt features, etc.
JMMARY OF FINDINGS – Attach site map				
ydrophytic Vegetation Present? Yes	is the Sam	npled Area		
ydric Soil Present? Yes	vithin a W	Vetland?	Yes No	
Vetland Hydrology Present? Yes	10 high a	H answer	the hydre soil in	dicators for
lemarks: Gol is naturally posterial	e me to age gi	oc. M	Cappend Gulch 1	loodylain -
forming - no react fear is a	Plati mat one a	durord	of veg.	•
Contains poco cas of another				
GETATION	D	ator Dom	inance Test worksheet:	
(Leo scientific names)	% Cover Species? Staf	tus Num	ber of Dominant Species	D
ree Stratum (Use scientilio neinoco)		That	Are OBL, FACW, or FAC:	(A)
		Tota	Number of Dominant	2
	· · · · · · · · · · · · · · · · · · ·	Spe	cies Across All Strata:	(B)
		Perc	cent of Dominant Species	100
Total Cov	er:	That	Are OBL, FACW, or FAC:	(A/B)
Sapling/Shrub Stratum		Pre	valence Index worksheet:	
1			Total % Cover of:	Multiply by:
2		OB	_species x 1	=
3		FAC	CW species x 2	=
4		FAC	species x 3	=
5Total Cov	/er:	FAC	CU species x 4	=
Herb Stratum	- / -	UP	_ species x 5	= (D)
1. Districh lis spicata	$-\frac{25}{25}$ $-\frac{11}{1}$	FAC CO	umn Totals: (A)	(B)
2. Suarda forreyana	$-\frac{25}{F}$	Arw	Prevalence Index = B/A = _	
3. Snaeda Calceolitormis	<u> </u>	<u>/~</u> Hyp	drophytic Vegetation Indicate	ors:
4			Dominance Test is >50%	
5	······		Prevalence Index is ≤3.0 ¹	
6			Morphological Adaptations ¹ (I	Provide supporting
7			data in Remarks or on a s	etation ¹ (Explain)
8 Total Co	ver: 55 27/11		Problematic Hydrophytic Veg	station (Explain)
Woody Vine Stratum		11-	directors of hydric soil and wetly	and hydrology must
1		be	present.	ina ny ara-35
2			dronhytic	d'
Total Co	ver:	l Hy Ve	getation	
% Bare Ground in Herb Stratum 45 % Co	over of Biotic Crust	Pr	esent? Yes	NO
% Bare Ground in their Strutterin	Cularte to loca	Lin 1/2	actation . Most a	F S torreye
Remarks /		- · · · · · · · · · · · · · · · · · · ·	period to the second	0
Remarks: Lorge Salt/ clay Flat with	a pochers par	1.5	Distrik lit is a	ment spe
Remarks: Longe salt/ clay flat weth is around wethend edge	+ in distinct por	ckets	Distichtis is gu	inend spe to giverides
Remarks: Large Salt/ clay Flat wetter is around wettend edge and low-growing; Other wette	+ in distinct pour not plants abs, b	ckets but not	Distich 13 is gu at DP · Puccinel	a givestes,

	la-Qual
OIL	Sampling Point:
Profile Description: (Describe to the depth needed to document the indicator or con	firm the absence of indicators.)
Depth <u>Matrix</u> <u>Redox Features</u>	Texture Remarks
(inches) Color (moist) % Color (moist) 1950 200	rlan
<u>D-16 2.5, 412 100</u>	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ² Location: PL=Pore Linin	g, RC=Root Channel, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils*:
Histosol (A1) Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2) Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3) Loamy Mucky Mineral (F1)	Reduced Venic (F18)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Stratified Layers (A5) (LRR C) Depleted Matrix (F3)	
1 cm Muck (A9) (LRR D) Redox Dark Surface (F7)	
Depieted Below Dark Surface (A12) Bedox Depressions (F8)	
Sandy Mucky Mineral (S1) Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and
Sandy Gleved Matrix (S4)	wetland hydrology must be present.
Restrictive Layer (if present):	
Denth (inches)	Hydric Soil Present? Yes <u>V</u> No
has high pH (salt on surface - not "crust -but due features one likely not formed.	to capillary action) - The Tour
termine in the second	
IYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (2 or more required)
I IYDROLOGY Wetland Hydrology Indicators: Drimony Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11)	<u>Secondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	<u>Secondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Dills (C6)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
IYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Si Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water Table Present? Yes Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes Ves No Depth (inches): Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection Remarks: Hydroday provided by combined by the stream of this provided by the stream of this provided by the stream of this provided to the stream of this provided by the stream of this provided to the stream of this preservice to the stream of this provided to the stream of this pres	Secondary Indicators (2 or more required)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) ✓ Saturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxidized Rhizospheres along Living Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Si Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water Table Present? Yes Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Other (Explain in Remarks) Other (inches): Water Table Present? Yes No Depth (inches): Other (inches): Other (inches): Saturation Present? Yes No Depth (inches): Other (inches): Describe Recorded Data (stream gaug	Secondary Indicators (2 or more required)

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MINATION DATA FORM - Arid West Region ----- - -

WEILAND	DETERMINATION DA		2/20/08
roject/Site: <u>SH 92 Austin</u>	City/Cou	nty: <u>Austin/Delta</u>	Sampling Date:
pplicant/Owner: <u>CDOT</u>		S	State: <u>CO</u> Sampling Point: <u>P-B 9</u>
vestigator(s): <u>Andy Herb</u>	Section,	Township, Range:	145, 94 m
andform (hillslope, terrace, etc.):	En Local re	lief (concave, convex	(none): <u>Concave</u> Slope (%): <u>0</u>
ubregion (LRR): Interior Deserts	Lat: <u>38 48</u>	<u>9</u> Long	101 36 37 Datum:
oil Map Unit Name: Aquic Natra	rgils		NWI classification:
re climatic / hydrologic conditions on the site typi	cal for this time of year? Yes	No	(If no, explain in Remarks.)
re Vegetation . Soil, or Hydrology	significantly disturbe	d? Are "Norma	al Circumstances" present? Yes No
re Vegetation Soil , or Hydrology	naturally problemation	? (If needed,	explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach sit	te map showing samp	ling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes		s the Sampled Area vithin a Wetland?	Yes No
Remarks: Upland roodside de Veg cover w/minimal sal	itch area adja. It on surface.	cent to W	e le-8; lots of weedy
, /EGETATION			
	Absolute Domir	nant Indicator Dor	ninance Test worksheet:
Tree Stratum (Use scientific names.)	<u>% Cover</u> Speci	es <u>r Status</u> Nun Tha	hber of Dominant Species / (A)
1		The	
2		Tota	pies Across All Strata: (B)
4		Por	cent of Dominant Species
ΤΤ	otal Cover:	Tha	Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum	•	Pre	valence Index worksheet:
1	· ·		Total % Cover of: Multiply by:
2	· · · · · · · · · · · · · · · · · · ·	ОВ	species x 1 =
3		FA	CW species X 2 =O
5.		FA	c species $35 \times 3 = 105$
1	Fotal Cover:	FA	CU species $10 \times 4 = 10$
Herb Stratum	35	FAC UP	L species 75 (A) 295 (B)
1. Dispersion Spilata	2.6	T UPL CO	
2. provins recorden	10	FACH	Prevalence Index = B/A =
4 Descursinia pinnata	10	UPL Hy	drophytic Vegetation Indicators:
5.			Dominance Test is >50%
6			Prevalence Index IS \$3.0 Morphological Adaptations ¹ (Provide supporting
7			data in Remarks or on a separate sheet)
8	Total Cover: 75 20		Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum		¹ In	dicators of hydric soil and wetland hydrology must
1		be	present.
2	Total Cover:	Hy	drophytic
% Bare Ground in Herb Stratum 25	% Cover of Biotic Crust	0 Pr	esent? Yes No
	the Alaca +	wether 1	P. Incer of Brownyc
Kemarks: Upland roads, de la	vatiand edge	; Descurain	a present, but not robust
Techning roups and	a d		
			Arid West – Version 11-1-2006

IL .	· · · · · · · · · · · · · · · · · · ·			of indicators)
ofile Description: (Describe to the	depth needed to document the indi	cator or confirm	the absence	of indicators.)
epth <u>Matrix</u>	Redox Features		Texture	Remarks
iches) Color (moist) %			r la y	No velox featur
0-16 2.545/2 10	0			
			·	
ype: C=Concentration, D=Depletion	, RM=Reduced Matrix. ² Location: F	PL=Pore Lining, P		for Problematic Hydric Soils ³ :
ydric Soil Indicators: (Applicable 1	to all LRRs, unless otherwise noted.	- J.	1 cm 1	Muck (A9) (LRR C)
_ Histosol (A1)	Sandy Redox (S5)		2 cm 1	Muck (A10) (LRR B)
_ Histic Epipedon (A2)	Loamy Mucky Mineral (F	=1)	Reduc	ced Vertic (F18)
_ Black Histic (A3)	Loamy Gleved Matrix (F	2)	Red F	arent Material (TF2)
	Depleted Matrix (F3)	-	Other	(Explain in Remarks)
_ Stratified Layers (AS) (LRR C)	Redox Dark Surface (F6	5)		· · ·
1 CM Muck (A9) (LRR D)	1) Depleted Dark Surface ((F7)		
_ Depleted Below Dark Surface (A12)	Redox Depressions (F8)		
Sondy Mucky Mineral (S1)	Vernal Pools (F9)		³ Indicators	s of hydrophytic vegetation and
Sandy Gleved Matrix (S4)			wetland	d hydrology must be present.
estrictive Laver (if present):				
-				
				12
Depth (inches): lemarks: No redox feature on edge of with	1rts, littlesolt on surf and le-8; pit damp	ale; no	Hydric Sol	soil indicators ; pit
Depth (inches): lemarks: No redox feate on edge of with	and le-8; pit damp	ate; no	Hydric Sol	I Present? Yes <u>No </u>
Depth (inches): lemarks: No redox feate on edge of with YDROLOGY	1rts, littlesolt on surf and le-8; pit damp	ale; no	Hydric Sol	I Present? Yes <u>No V</u> soil inlicators ; pit
Pype: Depth (inches): Remarks: No redox feate on edge of with YDROLOGY Vetland Hydrology Indicators:	1rts, littlesolt on surf and le-8; pit damp	ace; no	Hydric Sol	Il Present? Yes <u>No</u> <u>No</u> Soit inlicators ; pit
Processing the second s	ing, little solt on surf and le-8; pit damp	ate; no	Hydric Sol	Il Present? Yes <u>No</u> So, i , i lizators ; pit <u>ondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine)
Primary Indicators (A1)	is sufficient)	ale; ho	Hydric Sol	Il Present? Yes <u>No</u> So, <i>I</i> , <i>i</i> , <i>Lizatws</i> , <i>pit</i> <u>bindary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Primary Indicators (A1) High Water Table (A2)	is sufficient) 	ate; no	Hydric Sol	Il Present? Yes <u>No</u> So, <i>i</i> , <i>i</i>
Primary Indicators (A1) Surface Water (A1) High Water Table (A2) Saturation (A3)	is sufficient) 	(B13)	Hydric Sol	Il Present? Yes <u>No</u> So, <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>i</i> , <i>j</i> , <i>p</i> , <i>i</i> , <i>j</i>
Primary Indicators (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine)	is sufficient) — Salt Crust (B11) — Aquatic Invertebrates — Hydrogen Sulfide Odd	(B13) or (C1)	Hydric Sol	Il Present? Yes <u>No</u> Soil indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Preserve and the second	is sufficient) — Salt Crust (B11) — Salt Crust (B12) — Aquatic Invertebrates — Hydrogen Sulfide Odd erine) — Oxidized Rhizosphere	(B13) or (C1) es along Living Ro	Hydric Sol	Il Present? Yes No So, I, J. Lizatry; pit ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7)
Primary Indicators (A1) Surface Water (A1) High Water Table (A2) Sediment Deposits (B3) (Nonriverine) Depth (inches): Depth (inches): Primary Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Depth Deposits (B3) (Nonriverine)	is sufficient) 	(B13) or (C1) es along Living Re I Iron (C4)	Hydric Sol hydric Sol <u>Sec</u> 	Il Present? Yes No So, 1, J.
Primary Indicators (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6)	is sufficient) ————————————————————————————————————	(B13) or (C1) es along Living Re I Iron (C4) n in Plowed Soils	Hydric Sol hydric Sol Seco 	Il Present? Yes No So, 7 , So, 7 ,
Primary Indicators (An) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Surface Soil Cracks (B6) Surface Soil Cracks (B6)	is sufficient) ————————————————————————————————————	(B13) or (C1) es along Living Re I Iron (C4) n in Plowed Soils narks)	Hydric Sol Hydric Sol Secu Secu 	Il Present? Yes No So, 7 , So, 7 ,
Primary Indicators (An) Sediment Deposits (B2) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Water Stained Legues (B9)	is sufficient) ————————————————————————————————————	(B13) or (C1) es along Living Re I Iron (C4) n in Plowed Soils narks)	Hydric Sol	Il Present? Yes No So, I, J, Leaders, print So, I, J, Leaders, print So, I, J, Leaders, print Solution State State State Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)
I ype: Depth (inches): Remarks: No No redox Primary Indicators Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Water-Stained Leaves (B9)	is sufficient) ————————————————————————————————————	(B13) or (C1) es along Living Re I Iron (C4) n in Plowed Soils narks)	Hydric Sol	Il Present? Yes No Socid sincleators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)
Primary Indicators (Ary Ore doy from the form of the f	is sufficient) 	(B13) or (C1) es along Living Re I Iron (C4) n in Plowed Soils narks)	Hydric Sol hydric Sol <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u> <u>Sec</u>	Il Present? Yes No Socid simulations (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)
I ype: Depth (inches): temarks: No YDROLOGY YUROLOGY Surface Water Table (A2) Surface Water Present? Yes	is sufficient) 	(B13) or (C1) es along Living Ro I Iron (C4) n in Plowed Soils narks)	Hydric Sol hydric Sol 5 (C6)	Il Present? Yes No So, il , indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5)
I ype: Depth (inches): Remarks: No No redox Primary Indicators Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes	is sufficient) 	(B13) or (C1) es along Living Re I Iron (C4) n in Plowed Soils narks)	Hydric Sol	Il Present? Yes No So, I, So, I
Iype: Depth (inches): Remarks: No No redox Prodox front YDROLOGY YUROLOGY Yutar Table Alge of the distress Yutar Table Present? Yes Saturation Present? Y	is sufficient) 	(B13) or (C1) es along Living Re I Iron (C4) n in Plowed Soils narks) we evious inspections	Hydric Sol	Il Present? Yes No So.il ;:lizations ; pit pondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5) pagy Present? Yes No
Iype: Depth (inches): temarks: No No redox Prodox fortion YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes Mater Table Present? Yes Saturation Present? Yes	is sufficient) Salt Crust (B11) Salt Crust (B11) Salt Crust (B12) Aquatic Invertebrates Hydrogen Sulfide Odd erine) Oxidized Rhizosphere Presence of Reduced Recent Iron Reduction Gery (B7) No Depth (inches): No Depth (inches): Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): Depth (inches) (inches) (inches) (inches)	(B13) or (C1) es along Living Ro I Iron (C4) n in Plowed Soils narks) weighted Soils	Hydric Sol	I Present? Yes No So.il ;:lizations ; pit pondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5) Day Present? Yes No
Iype: Depth (inches): temarks: No No redox Predox forder YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) Surface Soil Cracks (B6) Inundation Visible on Aerial Image Water Table Present? Yes Mater Table Present? Yes Saturation Present? Yes Saturation Present? Yes Saturation Present? Yes Remarks: No hydmlagy	Integration Integration is sufficient)	(B13) or (C1) es along Living Re I Iron (C4) n in Plowed Soils narks) we evious inspections	etland Hydrold s), if available:	I Present? Yes No foil indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No falt sn grownd msst)

Arid West - Version 11-1-2006

Project/Site: Status CopyCounty Australiant CopyCounty CopyCounty Aust		. 1	A much ten t	Sampling Date: 2/29/08
Applicatives CDDT Section	Project/Site: SH 92 Austin	City/Count	y. <u>Austin/Del</u>	State: CO Sampling Paid. 6-9W
newstgator(s): Andy Heip Section, Township, Hange: Det , LLC - Care C Stope (%): C andform (ullislops, terrace, etc.) Def (S. m. Locareck, convex, none): <	Applicant/Owner: <u>CDOT</u>			_ State: <u>CO</u>
and/com (hildlope, terrade, etc.): Definitions Letc. 39 49 9 Longer (MC) Definitions	nvestigator(s): <u>Andy Herb</u>	Section, T	ownship, Range	- 20, 117, 11
Jubergion (LRR): Interface Lat: 38 TP 1 Long: Long: <t< td=""><td>andform (hillslope, terrace, etc.):</td><td>Local relie</td><td>ef (concave, conv a</td><td>vex, none): Stope (78) Stope (78)</td></t<>	andform (hillslope, terrace, etc.):	Local relie	ef (concave, conv a	vex, none): Stope (78) Stope (78)
Ball MD Unit Name Her To Nextra 1/22 Not classificantly first time of year? Yes No Vere Vegetation Soil or Hydrology astraily problematic? (first optical in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc No within a Wetand? Yes No Hydrophylic Vegetation Present? Yes No within a Wetand? Yes No within a Wetand? Yes No Wetand Hydrology Present? Yes No within a Wetand? Yes No within a Wetand? Yes No Sectors J & Subt Flat - /S - 20 h Veg Cerver , afsociated With a Wetand? No Wetand Hydrology Present? (A) Z Satter Statum A Subt Flat - /S - 20 h Veg Cerver , afsociated With a Wetand? Not classified and the statud flat as the statud flat	Subregion (LRR):Interior Deserts	Lat: <u>38 78</u>		ong: <u>101 Jacking</u> Datum <u>440</u>
Vie climatic / hydrologic conditions on the site synice for this time of year? Yes	Soil Map Unit Name:	1		NVVI classification:
view Vegetation Soil or Hydrology eignificantly disturbed? Are "Normal Circumstances" present? Tes mo iew Vegetation Soil or Hydrology naturally problematic? (if needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc within a Wetland? Yes No Hydrophydic Vegetation Present? Yes No is the Sampled Area within a Wetland? Yes No Remarks: Large [FM] with d. Witcold & Y SH 72 - Sorth fick of proved is worksheet: No	re climatic / hydrologic conditions on the site typical f	or this time of year? Yes _	No	(If no, explain in Remarks.)
viere Vegetation	re Vegetation, Soil, or Hydrology	significantly disturbed	? Are "Nor	mal Circumstances" present? Yes No
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc Hydrophytic Vegetation Present? Yes No Hydrophytic Vegetation Present? Yes No Remarks: Longe REM withed biscoted by SM 12 - Sorth Scheet: No No Remarks: Longe REM withed biscoted by SM 12 - Sorth Scheet: No No VEGETATION Absolute Dominant Indicator Wonder View Scheet: No 7 Sampling/Shrub Stratum Total Cover: Stratum No Charles Constant 1 Total Cover: Total Cover: Providence Index worksheet: No (AB) 2 Total Cover: Total Cover: FAC Providence Index worksheet: (AB) 1 Total Cover: Total Cover: FAC Saphin/Shrub Stratum Court Scheet Stratum Court	re Vegetation, Soil, or Hydrology	naturally problematic?	(If neede	ed, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wotland? Yes No Remarks: Lorge REM withed bit of the superior	SUMMARY OF FINDINGS – Attach site n	nap showing sampli	ng point loca	ations, transects, important features, etc.
Hydric Soil Present? Yes No	Hydrophytic Vegetation Present? Yes	No is	the Sampled Ar	ea
Wetland Hydrology Present? Yes No Remarks: Lergy PEM willord Litected by SH 92 - South 5.4 of rood is withed 6-2; Some gock+t3 if sult flat of /5-20 if vig cover ; associated w//co-bread Galch flowlyde.is VEGETATION Tree Stratum (Use scientific names.) Absolute Dominant Indicator % Cover Species? Status 1.	Hydric Soil Present? Yes	No wi	thin a Wetland?	Yes No
Remarks: Lerge REM without bicketed by SH P2 - Sorthy Side of predicts bullow in formation of contrast substantial species of substantial species of substantial species of substantial species in the species of the species in the species is the species in the s	Wetland Hydrology Present? Yes	No		1 1 1 1 1 1 1 6-0:
Some gockets + sult flut -/s-20/h veg cover ; associated u/Ca-head Gatta Fereigners VEGETATION Tree Stratum (Use scientific names.) Absolute Dominant Indicator % Cover Species? Status. 1.	Remarks: Large PEM wetland bits	icted by SH 92	- South	side of road is weather the
VEGETATION Absolute Dominant Indicator % Cover Spacies? Status 1.	Some pockets of salt flat -15	-20% vig cover	association	ed w/Lawhead Gulch Floordy Plains
Description Absolute % Cover Dominant Indicator % Cover Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Z (A) 1		1 		
Tree Stratum (Use scientific names.) % Cover. Species? status Number of Dominant Species Z (A) 1.		Absolute Domina	nt Indicator D	Dominance Test worksheet:
1	Tree Stratum (Use scientific names.)	<u>% Cover</u> Species	Status N	Number of Dominant Species
2	1		'	
3. Total Cover: Image: Cover of Cover Over Cover Cove	2	· · · · · · · · · · · · · · · · · · ·	T	Total Number of Dominant Species Across All Strata:2 (B)
Total Cover: Total Cover: Total Cover: Image: Are OBL, FACW, or FAC:	A			Present of Dominant Species
Sapling/Shrub Stratum Prevalence Index worksheet: 1. Total % Cover of: Multiply by: 2. OBL species x1 = 3. FAC Species x2 = 4. FAC Species x3 = 5. Total Cover: FAC Species x3 = 1. Distribution Spice ta 20 FAC 2. FAC Consulta aireoides 20 OBL 3. Species x4 = UP species x4 = UP species x5 = Courn Totals: (A) (B) 2. fracconsulta aireoides 20 OBL Prevalence Index = B/A =	Total	Cover:	T	That Are OBL, FACW, or FAC:(A/B)
1. Total % Cover of: Multiply by: 2. Total % Cover of: Multiply by: 3. GBL species x1 = 4. FAC Species x2 = 5. Total Cover: FAC Species x3 = 1. Dishthis spicenta 20 FAC 2. FAC cineally a irroides 20 Bell 3. Jo FAC With Species x4 = 1. Dishthis spicenta 20 Bell Prevalence Index = B/A = 2. Smacda calceoliformis Jo FAC With Species x4 = 4. Smacda three spices x5 = Column Totals: (A) (B) 2. Smacda three spices X6 = Morpholic Vegetation Indicators: Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Prevalence Index is \$3.0' 4. Morphological Adaptations' (Envide supporting data in Remarks or on a separate sheet) Prevalence Index is \$3.0' 7. Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet) Prevalence Index is \$3.0' 8. Total Cover: 70 35 /i4 Indicators of hydric soil and w	Sapling/Shrub Stratum			Prevalence Index worksheet:
2.	1		.	Total % Cover of: Multiply by:
3.	2		0	DBL species x 1 =
Total Cover: FAC species x3 = Herb Stratum 20 FAC 1. Distributis spiceta 20 FAC 2. Paccinalla aircides 20 08L 3. Stacda calceolifermis 10 FAC 4. Snacda threyana 10 FAC 5. Bascia scoparia 10 FAC 7. 0 FAC 8. 0 FAC 7. 0 FAC 8. 10 FAC 9. Bascia scoparia 10 FAC 1. 0 FAC 2. 0 FAC 1. 0 FAC 2. 0 FAC	3		F	FACW species x 2 =
Total Cover:	5	:	F	FAC species × 3 =
Herb Stratum 20 / FAC 1. Districtions spice ta 20 / FAC 2. Proceinable airo ides 20 / BEL 3. Stateda calceoliformis 10 FAC 4. Snaeda torreyana 10 FAC 5. Bassia scoperina 10 FAC 6	Total	Cover:	F	FACU species × 4 =
1. D.J. fricking spice and interviewed a irreites 20 10 <td>Herb Stratum</td> <td>20 1</td> <td>FAC</td> <td>JPL species X 5 = (A) (B)</td>	Herb Stratum	20 1	FAC	JPL species X 5 = (A) (B)
2	1. Displanis spicara	20 1	OBL	
3. Jurdical Conceptions 10 FAC 4. Snaeda torreyana 10 FAC 5. Bascia scoparia 10 FAC 6.	2. PACCINERIA AITOINS	10	FACW	Prevalence Index = B/A =
10 FACH Dominance Test is >50% 5. Bassian 10 FACH Dominance Test is >50% 6.	A Snaeda torreyana	10	FAC I	Hydrophytic Vegetation Indicators:
6 Prevalence Index is \$3.0° 6 7 8 Woody Vine Stratum 1 Vody Vine Stratum 1 % Bare Ground in Herb Stratum 30 % Cover of Biotic Crust 0 % Cover of Biotic Crust 0 Remarks: Large fEM4 withod assoc. "/Lamberd Goulah Floord plane"; packats of rait Flat Total Cover: plane for the following of the with the present for the following of the floor of the	5. Bassia scoparia	10	FACH -	Dominance Test is >50%
7.	6			Prevalence Index is <3.0'
8	7	· · · · · · · · · · · · · · · · · · ·		data in Remarks or on a separate sheet)
Woody Vine Stratum Total Cover: 35 /14 Indicators of hydric soil and wetland hydrology must be present. 1	8			Problematic Hydrophytic Vegetation ¹ (Explain)
1. 1. <td< td=""><td>Total</td><td>Cover: <u>10</u> 35/</td><td>14</td><td></td></td<>	Total	Cover: <u>10</u> 35/	14	
2	1	······		¹ Indicators of hydric soil and wetland hydrology must
Total Cover:	2			
% Bare Ground in Herb Stratum 30 % Cover of Biotic Crust 0 Present? Yes V No Remarks: Longe PEM wetland assoc. W/Lamberd Galeth Howdplain; pockets of salt Flat That have 5-20% to tal negetation cover; other plants observed in the wetle (not at DP) include Tamarix ramossissima + Erodium Ci Cutanium; weedy perimeter	Total	Cover:		Hydrophytic Vegetation
Remarks: Longe PEM withad assoc. "/Lawbead Galet Housdylain; pockets of salt Flat That have 5-201. total usgetarion cover; other plants observed in the wetter (not at DP) include Tamarix ramossissima + Erodium Ci cutanium; weedy perimeter	% Bare Ground in Herb Stratum%	Cover of Biotic Crust	0	Present? Yes <u>No</u>
hat have 5-20% to tal negetation cover: other plants observed in the wette (not at DP) include Tamarix ramossissima + Erodium Ci Cutanium; weedy perimeter	Remarks: / PEAA . M. I	1 Will andread	Sould those	Lelain . pockets of salt flat
(not at DP) include Tamarix ramossissima + Erodium Ci cutanium; weedy perimeter	longe ICM Westand asso	a hoin la	er . she	- stants observed in The wette
(not at Dr) inchare ramarix rangession of croaning Cicharing water	That have 5-20%. To rate	- man litima +	Enline	il utanium up du aerimeter
	(not at DP) incide raman	A rangeststream F	croning C	sevediation
w/lots of Bronnys tectorum, Eremopyrum + Lepidium perportaguing	w/lots of Bronney tectmum,	FICMOPYRUM +	Lepidium	M port port / car a page

SOIL

Sampling Point: 6-9W

	ription: (Describe t	o the depth h	eeded to docui		loutor of	comm	the absence	of malouterely
Depth	Matrix		Redo	x Features	r.m.al	1 002	Toxture	Bemarks
(inches)	<u>Color (moist)</u>		Color (moist)	<u></u>		LOC		
0-14	2.5y4/2	93 2			<u> </u>	<u> </u>	<u>ciay</u>	
•	,					<u> </u>		
			,					
		· · ·		·				
······	· · · · · · · · · · · · · · · · · · ·							
				. <u></u>		<u></u>		
· · · · · · · · · · · · · · · · · · ·		<u> </u>			<u> </u>			
¹Type: C≓C	oncentration, D=Depl	etion, RM=Re	duced Matrix.	² Location: I	PL=Pore	Lining, R	C=Root Chanr	nel, M=Matrix.
Hydric Soil	Indicators: (Applica	able to all LR	Rs, unless othe	rwise noted	.)		Indicators	for Problematic Hydric Solls :
Histosol	(A1)		Sandy Red	ox (S5)			1 cm M	Auck (A9) (LRR C)
Histic Er	oipedon (A2)		Stripped Ma	atrix (S6)			2 cm N	Nuck (A10) (LRR B)
Black Hi	istic (A3)	•	Loamy Muc	ky Mineral (F	-1)			ea venic (F10)
Hydroge	en Sulfide (A4)		Loamy Gle	yed Matrix (F	2)			arent Material (TF2) (Evolution in Remarks)
Stratified	d Layers (A5) (LRR C	;)	<u>V</u> Depleted N	latrix (F3)				схранин кенакз)
1 cm Mu	uck (A9) (LRR D)		Redox Darl	c Surface (F6				
Deplete	d Below Dark Surface	e (A11)	Depleted D	ark Surface	(F7)			
Thick Da	ark Surface (A12)		Redox Dep	ressions (Fö)		³ Indicators	of hydrophytic vegetation and
Sandy M	Jucky Mineral (S1)		vernal Poo	ы (гэ)			wetland	hydrology must be present.
Sandy C	bieyed Matrix (S4)	· .			·			
Kestrictive	Layer (if present):							
Type:			_					Procent? Ves No
Depth (in	ches):						Hydric Soli	
				<u></u>				· · · · · · · · · · · · · · · · · · ·
Wetland Hy	drology Indicators:			· · · · · · · · · · · · · · · · · · ·			Secor	ndary Indicators (2 or more required)
vvetiand riy	astern (any one india	ator is sufficieu	at)				v	Vater Marks (B1) (Riverine)
Primary Indi	cators (any one indic	ator is sufficien	IL)	(D11)				Sediment Deposits (B2) (Riverine)
Surface	Water (A1)	·	Sait Crus					Drift Deposits (B3) (Riverine)
High W	ater Table (A2)		Blotic Cru	St (D12)	(040)			rainage Batterns (B10)
🔟 Saturati	ion (A3)		Aquatic Ir		(B13)			ny Season Water Table (C2)
Water M	/iarks (B1) (Nonriver	ine)	Hydroger	Sulfide Odo	r (C1)	i dan Daa		This Muck Surface (C7)
Sedime	nt Deposits (B2) (No	nriverine)	Oxidized	Rhizosphere	s along L	iving Roc	$rs(u_3) = 1$	
Drift De	posits (B3) (Nonrive	rine)	Presence	of Reduced	Iron (C4)			rayisti Bullows (Co)
Surface	e Soil Cracks (B6)		Recent In	on Reductior	in Plowe	ed Solls (C6) S	Saturation Visible on Aenai Imagery (CS
	ion Visible on Aerial I	magery (B7)	Other (E)	plain in Rem	arks)		- ⁸	Shallow Aquitard (D3)
Inundat	IOII VISIDIE UN ACTIAN		·····					
Inundat	Stained Leaves (B9)		````````````````````````````````	·			F	
Water-S	Stained Leaves (B9) rvations:			- <u>* -,.</u>			F	AC-Neutral Test (D5)
Water-S Field Obset	Stained Leaves (B9) rvations: ter Present? Y	es No	Depth (ii	nches):	· · · · · · · · · · · · · · · · · · ·	_	F	AC-Neutral Test (D5)
Field Obser Surface Wa	Stained Leaves (B9) rvations: ter Present? Y Present? Y	es No es No	Depth (ii	nches): nches):		-	F	
Field Obser Surface Wa Water Table	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present? Y	es No es No es No	Depth (ii	nches): nches): nches):	0	- Wetl	and Hydrolog	AC-Neutral Test (D5)
Inundat Water-S Field Obset Surface Wa Water Table Saturation F (includes ca	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present? Y pipillary fringe)	es No es No es No	Depth (ii	nches): nches): nches):	0	- - _ Wetl	F	y Present? Yes No
Inundat Water-S Field Obse Surface Wa Water Table Saturation F (includes ca Describe Re	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present? Y publiary fringe) ecorded Data (stream	es No es No es No gauge, monit	Depth (in Depth (in Depth (in Depth (in oring well, aerial	nches): nches): nches): photos, prev	<i>O</i> vious insp	 wetl vections),	and Hydrolog	y Present? Yes No
Inundat Water-S Field Obset Surface Wa Water Table Saturation F (includes ca Describe Re	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present? Y pillary fringe) ecorded Data (stream	es No es No es No gauge, monit	Depth (in Depth	nches): nches): nches): photos, prev	O vious insp	- Wetl	and Hydrolog	AC-Neutral Test (D5)
Field Obser Surface Wa Water Table Saturation F (includes ca Describe Re	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present? Y pillary fringe) Y ecorded Data (stream Y	res No res No res No r gauge, monit	Depth (in Depth (in Depth (in Depth (in oring well, aerial high gi	nches): nches): nches): photos, prev	0 vious insp	- Wetl pections),	and Hydrolog if available:	present? Yes No
Field Obser Surface Wa Water Table Saturation F (includes ca Describe Re	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present? Y pollary fringe) Y ecorded Data (stream Hydmlogy pro	es No es No es No gauge, monit	Depth (in Depth (in Depth (in Depth (in oring well, aerial	nches): nches): photos, prev	O vious insp	- Wetl pections),	in the factor of	present? Yes No No power associated
Water-S Field Obser Surface Wa Water Table Saturation F (includes ca Describe Re Remarks:	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present? Y pollary fringe) Y ecorded Data (stream) Y Hydrology pm Lawhter Y	es No es No es No i gauge, monit when by f Gulca	Depth (in Depth (in Depth (in Depth (in oring well, aerial high gi high gi high gi	nches): nches): photos, prev	O vious insp	Wetl Wetl vections),	and Hydrolog if available:	present? Yes No No
Water-S Field Obser Surface Wa Water Table Saturation F (includes ca Describe Re Remarks:	Initial Visible of Aerian Stained Leaves (B9) rvations: ter Present? Present? Y Present? Y poillary fringe) ecorded Data (stream Hydrology M. Counters	es No es No es No egauge, monit worked by f Gulca	Depth (in Depth (in Depth (in Depth (in oring well, aerial high gi high gi high gi	nches): nches): photos, prev	0 /ious insp	- Wetl - Wetl - wetlons),	and Hydrolog if available:	pording associated
Water-S Field Obse Surface Wa Water Table Saturation F (includes ca Describe Re Remarks:	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present Present? Y Present Present? Y Present Pr	es No es No es No gauge, monit	Depth (in Depth (in Depth (in oring well, aerial high gi high gi high gi	nches): nches): photos, prev	o vious insp	Weth Dections),	if available:	present? Yes No
Inundat Water-S Field Obse Surface Wa Water Table Saturation F (includes ca Describe Re Remarks:	Stained Leaves (B9) rvations: ter Present? Y Present? Y Present? Y pillary fringe) ecorded Data (stream Hydmogy pr M Lawhles	$es \ No$ $es \ No$ $es \ No$ a gauge, monit a gauge, dentities by $a gauge by$	Depth (in Depth (in Depth (in Depth (in oring well, aerial high g) h Kloody	nches): nches): photos, prev	o vious insp	- Weth nections),	and Hydrolog if available: Sur Face	present? Yes No powling associated

US Army Corps of Engineers

Arid West - Version 11-1-2006

					Sampling Date: 2/29/08
Project/Site:SH 92 Austin	C	ity/County:	Austin/D		Compling Date
pplicant/Owner: <u>CDOT</u>				\$tate:CO	Sampling Point:
vestigator(s): <u>Andy Herb</u>	S	ection, Tow	nship, Rang	ge: <u>20,195</u>	, 1900
andform (hillslope, terrace, etc.):	l	.ocal relief (concave, co	onvex, none):	
ubregion (LRR):Interior Deserts	Lat: <u>38</u>	481	0	Long: $10/.52$	- 35 Datum: <u>NRD 83</u>
oil Map Unit Name: Aquiz Natrargid	<u> </u>			NWI classifi	cation:
re climatic / hydrologic conditions on the site typical for	this time of yea	r?Yes 🚬	No	(If no, explain in I	Remarks.)
re Vegetation, Soil, or Hydrology		isturbed?	Are "N	Iormal Circumstances"	present? Yes No
re Vegetation Soil , or Hydrology	naturally prot	lematic?	(If nee	ded, explain any answ	ers in Remarks.)
UMMARY OF FINDINGS – Attach site ma	ap showing	sampling	point lo	cations, transect	s, important features, etc.
Lindex shutia Vagatatian Prosent? Vas	No		0		
Hydrophytic Vegetation Present?		is the	e Sampieu / n a Wetland	Area 12 Yes	No V
Wetland Hydrology Present? Yes	No	- With	i a wetant		
Remarks:	· · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •			
VEGETATION			<u></u>		
LGETATION	Absolute	Dominant	Indicator	Dominance Test wor	rksheet:
<u>Tree Stratum</u> (Use scientific names.)	% Cover	Species?	Status	Number of Dominant That Are OBL, FACW	Species / (A)
2			·	Total Number of Dom	inant <i>tL</i>
3.				Species Across All St	rata: <u> </u>
4		. <u></u>		Percent of Dominant	Species
Total C	over:			That Are OBL, FACW	, or FAC: (A/B)
Sapling/Shrub Stratum				Prevalence index wo	orksheet:
1				Total % Cover of	Multiply by:
3				OBL species	x 1 =
4.				FACW species	x 2 =
5.				FAC species	x 3 =
Total C	over:	•		FACU species	×4 =
Herb Stratum	25	1	FACH	UPL species	X5 = (P)
1. Bassia scopania	<u> </u>	$\overline{}$	FAC	Column Totals:	(A) (b)
2. Distrikis great		$\overline{}$	FACU	Prevalence Inde	ex = B/A =
Brank testing		\neg	UPL	Hydrophytic Vegeta	tion Indicators:
5 Decempainin Dinnata	5		UPL	Dominance Test	is >50%
6 Helinothus annuus	1		FACH	Prevalence Index	x is $\leq 3.0^1$
7				Morphological A	daptations ¹ (Provide supporting
8				Problematic Hyd	rophytic Vegetation ¹ (Explain)
Total C	Cover: 76	38/15			
1				¹ Indicators of hydric s be present.	soil and wetland hydrology must
2Total (over:	<u>i</u>		Hydrophytic	
2 4	Over of Distin C	ruet <i>D</i>	•	Vegetation Present?	Yes No
% Bare Ground in Herb Stratum % C				-44 -44 4	
Kemarks: Upland ready de dikh a	ajalent mud -	to for appears	ye PE	ave been So	; some old
in hydrology - no living	Typha of	// /.	<i></i>		

6	-	9	L

	Sampling Point: 0-1 C
zile Deservetiens (Describe to the doubt wooded to describe the	to indicator or confirm the abcance of indicators)
rofile Description: (Describe to the depth needed to document th	he indicator or confirm the absence of indicators.)
Depth <u>Matrix Redox Featu</u>	Type ¹ Loc ² Texture Remarks
0-19 2.5/4/2 100	
Europe Concontration D-Depletion PM=Reduced Matrix ² locat	tion: PL=Pore Lining RC=Root Channel M=Matrix
vdrig Soil Indicators: (Applicable to all LRRs, unless otherwise r	noted) Indicators for Problematic Hydric Soils ³ :
yunc Son indicators. (Applicable to an Errits, unless outerwise i	$1 \text{ cm} \text{Muck} (\Delta Q) (I \text{ BR C})$
_ Histosol (A1) Sandy Redox (S5)	
_ Histic Epipedon (A2) Stripped Matrix (So	
_ Black Histic (A3) Loamy Mucky Mind	eral (FT) Reduced Venic (FT0)
Hydrogen Sulfide (A4) Loamy Gleyed Ma	$\frac{1}{2}$
_ Stratified Layers (A5) (LRR C) Depleted Matrix (F	
_ 1 cm Muck (A9) (LRR D) Redox Dark Sunac	
_ Depleted Below Dark Surface (AT1) Depleted Dark Sur	
Thick Dark Surface (A12) Redox Depression	³ Indicators of hydrophytic vegetation and
_ Sandy Mucky Mineral (S1) Vernal Pools (P9)	wetland hydrology must be present
Sandy Gleyeu Matrix (54)	
estrictive Layer (il present).	
Туре:	
Depth (inches):	Hydric Soil Present? Yes No
/DROLOGY	
/DROLOGY /etland Hydrology Indicators:	Secondary Indicators (2 or more required)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient) Surface Water (A1) Surface Water (A1)	<u>Secondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12)	<u>Secondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Dratage Patterns (B10) Dratage Patterns (B10) DrySeason Water Table (C2)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) actors (B13) Odor (C1) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Dry-Season Water Table (C2) uced Iron (C4) Crayfish Burrows (C8) Uction in Plowed Soils (C6) Saturation Visible on Aerial Imagery (C9)
/DROLOGY /etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Tates (B13) Odor (C1) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Dry-Season Water Table (C2) Uction in Plowed Soils (C6) Remarks) Shallow Aquitard (D3)
/DROLOGY //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) ates (B13) Odor (C1) Dry-Season Water Table (C2) oberes along Living Roots (C3) uction in Plowed Soils (C6) Remarks) FAC-Neutral Test (D5)
//DROLOGY //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
//DROLOGY //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
//DROLOGY //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Thin Drainage Patterns (B10) Pry-Season Water Table (C2) Droin in Plowed Soils (C6) Remarks) Shallow Aquitard (D3) FAC-Neutral Test (D5)
//DROLOGY //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
//DROLOGY //etland Hydrology Indicators: rimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrology Indicators: trimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
Vetland Hydrology Indicators: Irimary Indicators (any one indicator is sufficient) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12 Saturation (A3) Aquatic Invertebr Water Marks (B1) (Nonriverine) Hydrogen Sulfide Sediment Deposits (B2) (Nonriverine) Oxidized Rhizosp Drift Deposits (B3) (Nonriverine) Presence of Red Surface Soil Cracks (B6) Recent Iron Redu Inundation Visible on Aerial Imagery (B7) Other (Explain in Water Table Present? Yes No Vater Table Present? Yes No Depth (inches): water Table Present? Yes No Depth (inches): ncludes capillary fringe)	Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrology Indicators: trimary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)
YDROLOGY Vetland Hydrology Indicators: primary Indicators (any one indicator is sufficient)	Secondary Indicators (2 or more required)

1

	01110	t	Sampling Date: 2/28/08
Project/Site: <u>SH 92 Austin</u>	City/Cou	inty. <u>Austin/I</u>	State: CO Sampling Point: 16-4W
pplicant/Owner: <u>CDOT</u>		m	2/2 145 gull
nvestigator(s): <u>Andy Herb</u>	Section,	Township, Ran	ge [] / [] [] [] [] [] [] [] [] [] [] [] [] []
andform (hillslope, terrace, etc.):	Local re	elief (concave, c	onvex, none):
ubregion (LRR):Interior Deserts	Lat: <u> 48</u>	8	Long: 10/ 32 27 Datum: 10/10 83
ioil Map Unit Name: <u>Aquic Natrargide</u>	<u> </u>		NWI classification:
re climatic / hydrologic conditions on the site typical fo	r this time of year? Yes	No	(If no, explain in Remarks.)
re Vegetation, Soil, or Hydrology	significantly disturbe	d? Are "I	Normal Circumstances" present? Yes <u>V</u> No
re Vegetation, Soil, or Hydrology	naturally problematic	c? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing samp	ling point lo	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	_ No Is _ No v _ No v	s the Sampled vithin a Wetlan	Area d? Yes <u>No</u>
Remarks: Lanze PEM wetland as/sec flats included; some areas	inundated	had 6n n/ > 12	leh Hood floin : large salt
'EGETATION			
	Absolute Domin % Cover Speci	ant Indicator es? Status	Dominance Test worksheet:
I ree Stratum (Use scientific frames.)	<u>_/0 00001</u> <u>_00000</u>		That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
3	· · · · · · · · · · · · · · · · · · ·		Species Across All Strata: (B)
4.	· · ·		Percent of Dominant Species
Total C	over:		That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum			Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
2			OBL species x 1 =
A.			FACW species x 2 =
5.			FAC species x 3 =
Total C	over:		FACU species × 4 =
Herb Stratum	70 /	Fre	UPL species x 5 =
1. Distriklis spicata	<u> </u>	FAIN	Column Totals: (A) (B)
2. Muhansergia aspertita	<u> </u>	FACU	Prevalence Index = B/A =
3. Cipsi uni arrege		FACH	Hydrophytic Vegetation Indicators:
4. <u>Дауанана и на </u>			Dominance Test is >50%
6.	· · · · · · · · · · · · · · · · · · ·		Prevalence Index is ≤3.0 ¹
7	······································		Morphological Adaptations ¹ (Provide supporting
8	<u> </u>	1.9	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum	,over: <u>77</u> 45	118	¹ Indicators of hydric soil and wetland hydrology must
2			be present.
Total (Sover:		Hydrophytic Vegetation
% Bare Ground in Herb Stratum % 0	Cover of Biotic Crust	<u> </u>	Present res v Nu
Remarks: Longe PEM withund BM flat met are devoid of ve in and around wetland; 3	' Lawherd bu getation or ome recent	have 2 vehicle	20% cover: pockets of Suger 20% cover: pockets of Suger disturbance has reduced very
cover close to road			Arid West Version 11-1-2006

OIL								Sampling Point: 6-46
rofile Desc	ription: (Describe t	o the dep	th needed to docu	ment the	indicator	or confirm	the absence	of indicators.)
Depth	Matrix		Red	ox Feature	s	<u>_</u>		Demode
inches)	Color (moist)	%	Color (moist)	%	_Type'	Loc		Remarks
0-14	2.544/2	98	2.545/6	2	<u> </u>	<u></u>	<u>clayey</u>	- s; ity clay
				21 costion			C=Root Chan	nel M=Matrix.
Type: C=C	oncentration, D=Dep	etion, Rivi	Reduced Mainx.	envise not	ted.)	e Linnig, r	Indicators	for Problematic Hydric Soils ³ :
iyaric Soll	indicators: (Applic		Civita, unicas oun	10x (95)		·	1 cm N	Auck (A9) (LRR C)
Histoso	I (A1) ninodon (A2)		Sanuy Red	latrix (S6)			2 cm M	Auck (A10) (LRR B)
	pipedon (A2)		Loamv Mu	cky Miner	al (F1)		Reduc	ed Vertic (F18)
Hvdrood	en Sulfide (A4)		Loamy Gle	eyed Matrix	k (F2)		Red P	arent Material (TF2)
Stratifie	d Layers (A5) (LRR (C)	Z Depleted	Matrix (F3)			Other	(Explain in Remarks)
1 cm M	uck (A9) (LRR D)		Redox Da	rk Surface	(F6)			
Deplete	ed Below Dark Surfac	e (A11)	Depleted I	Dark Surfa	ce (F7)			
Thick D	ark Surface (A12)		Redox De	pressions	(F8)		³ Indicators	of hydrophytic vegetation and
Sandy I	Mucky Mineral (S1)		Vemai Po	UIS ([9)			wetland	hydrology must be present.
Sandy	Laver (if present):			<u></u>				
testricuve	Layer (il present).			÷				
Type:	·						Hydric Soi	Present? Yes No
YDROLO	DGY				: 			
Netland H	drology Indicators:		<u></u>				Seco	ndary Indicators (2 or more required)
Primary Ind	icators (any one indic	ator is suf	ficient)				\ \	Water Marks (B1) (Riverine)
Surface	a Water (A1)		Salt Cru	st (B11)			_ •	Sediment Deposits (B2) (Riverine)
High W	ater Table (A2)		Biotic Cr	ust (B12)			(Drift Deposits (B3) (Riverine)
√ Saturat	tion (A3)		Aquatic	Invertebrat	es (B13)		[Drainage Patterns (B10)
Water	Marks (B1) (Nonrive	ine)	Hydroge	n Sulfide (Odor (C1)		I	Dry-Season Water Table (C2)
Sedime	ent Deposits (B2) (No	nriverine)	Oxidized	I Rhizosph	eres along	, Living Ro	ots (C3) ⁻	Thin Muck Surface (C7)
Drift De	eposits (B3) (Nonrive	rine)	Presenc	e of Reduc	ced Iron (C	:4)		Crayfish Burrows (C8)
Surfac	e Soil Cracks (B6)		Recent I	ron Reduc	tion in Plo	wed Soils	(C6)	Saturation Visible on Aerial Imagery (C
Inunda	tion Visible on Aerial	Imagery (I	37) Other (E	xplain in F	Remarks)			EAC Neutral Test (D5)
Water-	Stained Leaves (B9)		·				<u></u> _	
Field Obse	ervations:				, i			
Surface Wa	ater Present?	(es	No Depth (inches):	10			1
Water Tabl	e Present?	(es	No Depth (inches): _	10		- احتاجا المعام	my Brosont? Yes V
Saturation	Present?	∕es V	No Depth ((inches):	0	wet	land Hydrolog	gy Presentr res no
(includes c Describe R	apillary fringe) ecorded Data (strean	n gauge, m	nonitoring well, aeria	al photos, j	previous ir	ispections)	, if available:	
Remarks:	free water	~ <i>t </i> : >/2	o" after " Leep [so	10 Min	intes;	pick reas)	k of it	hypolation (not at a logy associated of all formulation
high	groundwat	er +	jurrace g		7 "		an perm	concer planapresa
								Arid West – Version 11-1-2

. Arid West Region

WETLAND DE	ETERMINATION	DATA FORM – P	VLIC Mest Ke	gion	2/2	9/28
oject/Site: SH 92 Austin	City/	County: <u>Austin/De</u>		Sampling	Point:	ýu
plicant/Owner: CDOT			State:0	14C all la	//	<u></u>
restigator(s): Andy Herb	Sect	ion, Township, Range	e:	12,1100	Slone (%)	0
ndform (hillslope, terrace, etc.): Depression	Loc	al relief (concave, col	nvex, none):	To 29		10 83
ibregion (LRR): Interior Deserts	Lat: <u>38</u>	<u>48 9</u> L	_ong:/0_/	34 -1		
Man Unit Name: Aquic Natrar	-gils	/	NWI 0	assification:		
e climatic / hydrologic conditions on the site typical	for this time of year?	Yes No	(if no, expla	ain in Remarks.)		•
e Vegetation, Soil, or Hydrology	significantly dist	urbed? Are "N	ormal Circumsta	inces" present?	res (
re Vegetation, Soil, or Hydrology	naturally probler	natic? (If need	ded, explain any	answers in Rema	aiks.)	. 4 -
LINARA RY OF FINDINGS - Attach site	map showing sa	mpling point lo	cations, tran	sects, impor	tant feature	s, etc.
UNIMART OF THEBICO					1	
Hydrophytic Vegetation Present? Yes		Is the Sampled A	Area	No No		
Hydric Soil Present? Yes		within a Wetland				
Wetland Hydrology Present?	to lunar At 1	VI wetland	We 6-4)	: recent	1 snowim	it
May be cause for satur	tim.					
/ /EGETATION			Dominance Te	est worksheet:	<u></u>	
	Absolute C % Cover \$	Jominant Indicator Species? Status	Number of Dor	ninant Species	A	
Tree Stratum (Use scientific names.)			That Are OBL,	FACW, or FAC:		_ (A)
1			Total Number	of Dominant	2	
2			Species Acros	s All Strata:		_ (B)
4	·		Percent of Dor	ninant Species	0	(A/B
Tot	al Cover:		That Are OBL,	FACW, of FAC		
Sapling/Shrub Stratum	- AND		Prevalence In	idex worksheet:		
1			Total % C	over of:		
2			OBL species	· /	v 2 =	
4.			FACW species	5	x 3 =	
5			FACU species	s :	x 4 =	
То	tal Cover:		UPL species		x 5 =	
Herb Stratum	30	J UPL	Column Total	s: ((A)	(B
2 Eremonurum triticeum	25	J UPL	Drovala	nce Index = B/A	Ξ	
3 Distichtis spicata		FAC	Hydrophytic	Vegetation India	cators:	
4. Bassia scoparia		FAC U	Dominan	ice Test is >50%		
5. Lactula Servida		FACH	Prevalen	ice Index is ≤3.0¹		
6. Cirsium avense		FACH	Morphole	ogical Adaptations	s ¹ (Provide sup)	porting
7. Helienthing annuers			data i	n Remarks of on	Vegetation ¹ (Ex	plain)
8T	otal Cover: 88	+4/18		alle Hydrophylie	, ogotulion (ini	r ,
Woody Vine Stratum	Concerns.	• •	¹ Indicators of	f hydric soil and w	vetland hydrolog	gy must
1		· · · · · · · · · · · · · · · · · · ·	be present.	-		
2T	otal Cover:		Hydrophytic Vegetation	; Yac	No 🗸	1
% Bare Ground in Herb Stratum12	% Cover of Biotic C	rust	Hresent?	105		-
Remarks: Upland roadside di Hordglain (wetland 6-4)	tch adjacen; vory wee	I to large	penja.	soc. 4/6	t sheed 1	0~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
					Nach Martin-	11 1 20
US Army Corps of Engineers				Arid V	vest – version	11-1-20

Other Reformaging #s Coder (model) Survey Remarks 0-16 2.5 y 4 / 3 /vo	file Desc	ription: (Describe to	the deptl	h needed to docun	nent the indicator of	or confirm t	he absence	of Indicators.)
Color (model) % Color (model) % Type: Color (model) % D = 16 2.5 y 4 / 3 /ro C C/yey Subject (Lyey) Subject (Lyey) D = 16 2.5 y 4 / 3 /ro C C/yey Subject (Lyey) Subject (Lyey) D = 16 2.5 y 4 / 3 /ro C C C/yey Subject (Lyey) D = 16 2.5 y 4 / 3 /ro C C C/yey Subject (Lyey) D = 16 2.5 y 4 / 3 /ro C	epth	Matrix		Redo	x Features	<u> </u>	_ .	Demetro
D-16 2.5 yt #/3 pc Crypty Security Chip yee Call of the security o	iches)	Color (moist)	%	Color (moist)	<u>%</u> Type'	<u>Loc</u> _	Texture	Remarks
yee: C=Concentration, D=Dopletion, RM=Reduced Matrix: *_icoation: PL=Pore Lining, RC=Red Charinel, M=Matrix: indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solips': Histics Cpledon (A2) Sandy Redox (S5) 1 on Muck (A9) (LRR C) Black Histic (A3) Loarny Mucky Mineral (F1) Red Parent Muterial (T2) Phytrogen Suffic (A4) Loarny Mucky Mineral (F1) Red Parent Muterial (T2) Stratific Layers (A5) (LRR C) Depleted Matrix (F3) Red Parent Muterial (T2) Depleted Below Dark Sufface (A1) Depleted Cark Sufface (F6) Polytopen Sufface (A2) Truck Dark Sufface (A12) Red Parent Muterial (T2) Red arent Muterial (T2) Sandy Mucky Mineral (S1) Vernal Pools (F9) Indicators of hydrophytic vegetation and wetand hydrology mut be present. extriction Layer (If present): Type: Mucky Mineral (S1) Vernal Pools (F9) Ype: Deph (inches): Water Marks (B1) (RVerine) Secondary Indicators (2 or more resources) Strate Mark (G4) Sandy Chey Muteria (S2) (RVerine) Secondary Indicators (2 or more resources) Indicators (2 or more resources) Sandy Chey Matrix (S4) Histopen Strates (S1) Water Marks (S1) (RVerine) Secondary Indicators (2 or	0-16	2.5y4/3	100				Clayey	Sandy Clay
ge: C=Concentration, D=Deptetion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Chained, M=Matrix. rdfc: Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis': Histos (A1) Sanzy Redux (S5) 1 orm Muck (A0) (LRR C) Each Histic (G3) Learny Mucky Mineral (F1) Reduce (S7) Promote Matrix (S6) 2 orm Muck (A10) (LRR D) Reduce (S7) I orm Muck (A0) (LRR D) Reduce (S7) Other (Explain in Remarks) I orm Muck (A0) (LRR D) Reduce Dark Surface (F7) Other (Explain in Remarks) I orm Muck (A0) (LRR D) Reduce Dark Surface (F7) Other (Explain in Remarks) I orm Muck (A0) (LRR D) Reduce Dark Surface (F7) Reduce Parent Material (S1) Sandy Objeet Matrix (S4) Vernal Pools (F9) Indicators of hydrophytic vegetation and wetland hydrology must be present. Sardy Objeet Matrix (S4) Vernal Pools (F8) Indicators (S2 (Riverine)) Sardy Objeet Matrix (S4) Secondary (Indicators (S2 (Riverine)) Sardy Objeet Matrix (S4) Batter Charles (S1) Water Matrix (S1) (Riverine) Sardy Objeet Matrix (S4) Batter Charles (S1) Deptee Matrix (S1) Deptee Matrix (S1) Sardy Objeet Matrix (S4)								-
marks No Lycation Lycation Provided from the second				· · · · ·				
pre: C=Cancentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RO=Root Chained, M=Matrix. indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis*: indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis*: indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis*: Histoc (A1) Satyped Matrix (S9) 2 cm Muck (A10) (LRR D) Back Histic (A3) Loarny Mucky Minteral (T1) Reduced Variation (T2) Poplied Batwise (A3) Depresented Matrix (T2) Red Parent Material (T2) Depleted Batwise (A5) Reduce (Pr) Reduce (Pr) Thick Dark Surface (A12) Reduce (Pr) Reduce (Pr) Thick Dark Surface (A12) Reduce (Pr) Problematic (Pr) Satisfies Layer (If present): Type: Mydric Soil Present? Yes					·			
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Rot Chainel, M=Matrix. Hidds Soll Indicators: (APR C) Sandy Redox (S5) Infilicators for Problematic Hydric Solls*: Hidds Calledon (A2) Stripped Matrix (S6) 2 cm Mudc (A9) (LRR C) Black Histic (A3) Loamy Mudcy Mineral (F1) Reduced Vertic (F18) Phydrogen Suffice (A4) Loamy Mudcy Mineral (F1) Reduced Vertic (F18) Operated Below Dark Surface (A11) Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A12) Vernal Pools (F9) * Sandy Mudcy Mineral (S1) Secondary Indicators (2 or more reaulied) Sandy Mudcy Mineral (S1) Secondary Indicators (2 or more reaulied) Sandy Mudcy Mineral (S1) Secondary Indicators (2 or more reaulied) Sandy Mudcy Mineral (S1) Secondary Indicators (2 or more reaulied) Sandy Mudcy Mineral (S1) Secondary Indicators (2 or more reaulied) Sand		·			· · · · · · · · · · · · · · · · · · ·			
yre: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Red Chainel, M=Matrix. yre: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Red Chainel, M=Matrix. yre: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Red Chainel, M=Matrix. Histos [A10]								
ype: C=Concentration, D=Depletion, RM=Reduced Matrix. *Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Histoc Soli Indicators: (Applicable on all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis*: Histoc Soli (A2) Strady Redox (S5) 1 cm Muck (A9) (LRR C) Black Histic (A3) Loamy Mucky Mineral (F1) Reduced Vertic (F16) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Reduced Vertic (F16) Depleted Batrix (F3) Other (Explain in Remarks) Other (Explain in Remarks) 1 cm Muck (A9) (LRR C) Depleted Datrix Surface (F7) Depleted Matrix (F3) Depleted Batrix (F3) Red Depresentions of hydrophytic vegetation and wetland hydrology must be present. Sandy Mucky (S4) Explande Datrix Surface (F7) Present? Yes No ✓ Depleted Batrix (F3) Vermal Pools (F9) *Indicators of hydrophytic vegetation and wetland hydrology must be present. Strictive Layer (if present): Type: Hydric Soil Present? Yes No ✓ No ✓ Strictive Layer (if present): Strictive Layer (if present): Type: Depleted Matrix (F3) Secondary Indicators (2 or more resulted) Strictive Layer (if present): Strictive Layer (if present): Type: No ✓ No ✓ S								
yne: C=Concentration. D=Depletion, RM=Reduced Matrix *Location: PL=Pore Lining, RC=Rod Charinel, M=Matrix. yne: C=Concentration. D=Depletion, RM=Reduced Matrix *Location: PL=Pore Lining, RC=Rod Charinel, M=Matrix. yne: Sandy Redux (S5) 1 cm Muck (MB (LRR C) Histes (A1)		· · · · · · · · · · · · · · · · · · ·			· · · ·			
yps: C=Concentration, D=Depletion, RM=Reduced Matrix *Location: PL=Pore Lining, RC=Rot Charinel, M=Matrix yrdric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls': Histo: Strapped Matrix (S6) 2 cm Muck (A) (LRR D) Black Histis (A3) Loamy Mucky Minera (F1) Red Vacio Vitic (F18) Pydroges Sufface (A4) Loamy Gleyed Matrix (F3) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Red Cactors of hydrophytic vegetation and wetland hydrology must be present. Settricture Layer (IP present): Trick Dark Surface (A12) Red Note (S12) No Settricture Layer (IP present): Type: Product Surface (A12) Red Note (S12) Settricture Layer (IP present): Type: Matrix (B1) Vernal Pools (F9) Indicators of hydrophytic vegetation and wetland hydrology must be present. Settricture Layer (IP present): Type: Matrix (B1) Satt Crust (B11) Secondary Indicatoris (B1) Wetland hydrology (Indicatoris (B1)) Settricture Layer (B1) Satt Crust (B11) Satt Crust (B11) Secondary Indicatoris (B2) (Riverine) Dift Deposits (B2) (Nontriverine) Outside R Rhizospheres along Living Roots (G2) Drahage Patt			<u> </u>		· · · · · · · · · · · · · · · · · · ·			
ype: Concentration, December 200 Controls, Reveal Change, Markator Structures, Reveal Change, Markator Store Problematic Hydric Solis*: Histosol (A1) Sandy Redox (S5) 1 m Muck (A10) (LRR C) Histosol (A2) Stripped Matrix (S6) Reduces Vertic (F18) Histosol (A2) Loamy Mucky Mineral (F1) Reduces Vertic (F18) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Red Parent Material (TF2) Statified Layers (A3) (LRR C) Depleted Matrix (F2) Red Parent Material (TF2) Depleted Matrix (A3) Loamy Gleyed Matrix (F3) Other (Explain in Remarks) Depleted Date Surface (F7) Redox Depressions (F8) *indicators of hydrophytic vegetation and wetland hydrology must be present. Sendy Cleved Matrix (S4) Vernal Pools (F9) *indicators (12 or more required) Proc. Hydric Soil Present? Yes No Parent Matrix (B1) (RNorrine) Salt Crust (B11) Secondary Indicators (22 or more required) Secondary Indicators: No Aquatic Invertebrates (B13) Droiseason Water Table (A2) Saturation (A3) Hydrogen Suffice Corr (C1) Droiseason Water Table (A2) Saturator Neodis (B3) (Nonriverine) Secondary Indicators: Presence of Reduced Inn (C4) Saturation Visible on Aeria								
ydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators in Muck (A) Histos (A1) Stripped Matrix (S5) 2 orn Muck (A9) (LRR B) Histos (A1) Stripped Matrix (S6) 2 orn Muck (A9) (LRR B) Black Histic (A3) Loamy Mucky Miteral (F1) Red Parent Material (TF2) Other (Explain in Remarks) Depleted Matrix (F3) Other (Explain in Remarks) 1 orn Muck (A9) (LRR C) Depleted Dark Surface (F7) Thek Dark Surface (A12) Red Ozenet Matrix (F3) Other (Explain in Remarks) Sandy Olegved Matrix (F3) Vernal Pools (F9) Indicators of hydrophytic vegetation and wetland hydrology must be present. Sandy Olegved Matrix (A4) Vernal Pools (F9) Indicators (A1) (Miterene) No Sandy Olegved Matrix (A4) Vernal Pools (F9) Indicators (A1) (Miterene) Indicators (A1) (Miterene) Sandy Olegved Matrix (A4) Sait Crust (B11) Wetland Hydrology must be present? No Stripted Natrix (A3) Aquatic Invertenates (B13) Dirt Deposits (B2) (Nevrine) Dirt Deposits (B2) (Nevrine) Surface CA1(A3) Aquatic Invertenates (B13) Dirt Deposits (B2) (Nevrine) Dirt Deposits (B2) (Nevrine) Surface Soil Cracks (B6) Recent forn Readitorin (Powed Soils (C6	ype: C=Co	oncentration, D=Deple	etion, RM=	Reduced Matrix.	² Location: PL=Por	e Lining, RC	=Root Char	nel, M=Matrix.
Histoc Eppedon (A2) Sandy Redox (S5)	dric Soil	Indicators: (Applica	ble to all l	LRRs, unless othe	rwise noted.)		Indicator	
Histic Epipedon (A2)	_ Histosol	(A1)		Sandy Red	ox (S5)			
Black Hists (A3)	_ Histic Ep	pipedon (A2)		Stripped Ma	atrix (S6)		2 cm Redu	ced Vertic (F18)
Hydrogen Suffice (A4)	_ Black Hi	istic (A3)		Loamy Muc	xy Mineral (F1)		Red F	Parent Material (TF2)
Statistic Layers (A) (LRR C)	_ Hydroge	en Sulfide (A4)	`	Loamy Gle	yeu ivialitx (F2) Istrix (F3)		Other	(Explain in Remarks)
I om wide (rs) (LND) Inclusion Constraint of the constra	_ Stratified	d Layers (A5) (LRR C)	Depleted IV Reday Dark	k Surface (F6)		+ 30.0	
Deprined bown banks (Mineral (S1)	1 cm Mu	JCK (A9) (LKK D) d Below Dark Surface	(A11)	Depleted D	ark Surface (F7)			
International data with the provided matrix (S4) Vernal Pools (F9) *Indicators of hydrophytic vegetation and wetand hydrology must be present. Sandy Muck (S4) wetand hydrology must be present. estrictive Layer (If present): Type: Depth (inches): Hydric Soil Present? Yes No Immary Indicators: Hydric Soil Present? Yes No YDROLOGY Secondary Indicators: Water Marks (B1) (Riverine) Surface Water (A1) Salt Crust (B11) Water Marks (B3) (Riverine) Hydrigen Sufficient) Secondary Indicators (B3) (Riverine) Drift Deposits (B3) (Riverine) Surface Water (A1) Biotic Crust (B12) Drift Deposits (B3) (Riverine) DrySeason Water Table (C2) Startartion (A3) Aquatic Invertebrates (B13) DrySeason Water Table (C2) Crargins Burrows (C8) Surface Water (A1) Presence of Reduced Iron (C4) Saturation in Plowed Soils (C6) Saturation in Visible on Aerial Imagery (C9) Surface Water Present? Yes No Depth (inches): Saturation Visible on Aerial Imagery (C9) Surface Water Present? Yes No Depth (inches): Saturation Visible on Aerial Imagery (C9) Startard Dresent? Yes No Depth (inches		u Delow Dark Sunace ark Surface (A12)	(())	Redox Dep	ressions (F8)			
Sandy Gleyed Matrix (S4) wetland hydrology must be present. Gestrictive Layer (if present):	Sandv N	Aucky Mineral (S1)		Vernal Poo	ls (F9)		³ Indicator	s of hydrophytic vegetation and
estrictive Layer (if present): Type:	Sandy G	Gleyed Matrix (S4)					wetlan	d hydrology must be present.
Type:	estrictive	Layer (if present):						
Depth (inches): Hydric Soil Present? Yes No Jernarks: No Vestion distance VPROLOGY Secondary indicators: Primary indicators (any one indicator is sufficient) Sufficient) Sufface Water (A1) Salt Crust (B11) High Water Table (A2) Biotic Crust (B12) Vater Marks (B1) (Nonriverine) Hydrogen Suffice Odor (C1) Suffice Water (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Hydrogen Suffice Odor (C1) Sediment Deposits (B2) (Nonriverine) Oxid and Rizospheres along Living Roots (C3) Drift Deposits (B3) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Sundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water Stained Leaves (B9) Other (Explain in Remarks) "Eidd Observations: Depth (inches): Sutration Present? Yes No Depth (inches): O Depth (inches): includes capillary fringe) Depth (inches): No Describe Recorded Data (stream gauge, monitoring weil, aerial photos, previous inspections), if available: No Remarks: <td>Type:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>. /</td>	Type:							. /
Deput (inclusity) Secondary Indicators: Vettand Hydrology Indicators: Secondary Indicators (2 or more required) Primary Indicators (any one indicator is sufficient) Salt Crust (B11) Surface Vater (A1) Salt Crust (B12) High Water Table (A2) Biotic Crust (B13) Vaturation (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Norriverine) Dry-Season Water Table (C2) Sciuration (A3) Aquatic Invertebrates (B13) Water Marks (B1) (Nonriverine) Dry-Season Water Table (C2) Drift Deposits (B2) (Nonriverine) Presence of Reduced Iron (C4) Surface Soil Cracks (B6) Recent Iron Reduction in Plowed Soils (C6) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Vater Table Present? Yes No Depth (inches): Sufface Callary Fresent? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Sufface to Surface — w/in ~ 6"(V) of welfand - Smrre of Saftura <td< td=""><td>Donth (in</td><td>chec):</td><td></td><td></td><td></td><td></td><td></td><td>il Brocont? Ves No V</td></td<>	Donth (in	chec):						il Brocont? Ves No V
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Inundation Visible on Aerian integers (B7)	YDROLO YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De	No hydroiz OGY vdrology Indicators: icators (any one indicators) icators (any one indicators) ident (A1) vater Table (A2) ion (A3) Marks (B1) (Nonriveriant ent Deposits (B2) (Non eposits (B3) (Nonriveriant) Antipositis (so) () /) /) /) /) /) /) /) /) /	icient) Salt Crus Biotic Cru Aquatic In Hydroger Oxidized Presence Resence	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C	Living Root 4)	Hydric So Sec 	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS
Water-stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Nater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Safurnted to Surface - w/in ~ 6"(V) of wellmd - Source of satura May be recent Snowmelt	YDROLO Yetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Surface	No hydriz OGY vdrology Indicators: icators (any one indicators) water (A1) vater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (Non eposits (B3) (Nonriver es Soil Cracks (B6)	Secil in a constraint of the second s	icient) Salt Crus Biotic Cru Aquatic In Aquatic In 	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C ron Reduction in Plo rolain in Remarks)	Living Roof 4) wed Soils (C	Hydric So <u>Sec</u> <u>s</u> ts (C3) 56)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3)
-ield Observations: Surface Water Present? Yes No Depth (inches): Nater Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Safurnted to Surface - w/in ~ 6"(V) of welland - Source of Satura May be recent Snowmelt	YDROLO YDROLO Vetland Hy Primary Indi High W Saturati Saturati Sedime Drift De Surface Surface	No hydric OGY rdrology Indicators: icators (any one indicators) water (A1) 'ater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (Non eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial I	Seci () , , , , , , , , , , , , , , , , , ,	cient) Salt Crus Biotic Crus Biotic Cru Aquatic In Hydroger Oxidized Presence Recent In 7)Other (E)	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C ron Reduction in Plo xplain in Remarks)	Living Roof 4) wed Soils (C	ts (C3) (C3) ts (ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5)
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Water Table Present? Yes <u>No</u> <u>Depth (inches)</u> . <u>O</u> Saturation Present? Yes <u>No</u> <u>Depth (inches)</u> : <u>O</u> (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Safurated to Surface - w/in ~ 6"(V) of welland - Source of saturation May be recent Snowmelt	YDROLO YDROLO Vetland Hy Primary Indi Surface High W Saturat Water M Sedime Drift De Surface Inundat Water-S Field Obse	No hydroiz OGY vdrology Indicators: icators (any one indicators) icators (any one indicators) ident Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (Nor esposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial I Stained Leaves (B9) irvations:	se, (, , , , , , , , , , , , , , , , , ,	icient) Salt Crus Biotic Cru Aquatic Iu Hydroger Oxidized Presence Recent Ir 7) Other (Es	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C ron Reduced Iron (C ron Reduction in Plo xplain in Remarks)	Living Roof 4) wed Soils (C	ts (C3)	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
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Remarks: Saturated to Surface - w/in ~ 6"(V) of wetland - source of satura May be recent snowmelt	Primary Indi Primary Indi Surface High W Saturati Water M Sedime Drift De Surface Inundat Water-S Field Obse Surface Wa Water Table Saturation F	No hydriz OGY rdrology Indicators: icators (any one indicators) icators (any one indicators) icators (any one indicators) water (A1) later Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (Non eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial I Stained Leaves (B9) prvations: ater Present? Y Present? Y	sine) nriverine) rine) magery (B	icient) Salt Crus Biotic Crus Aquatic II Aquatic II Aquatic II Aquatic II Aquatic II Aquatic II Aquatic II Aquatic II Aquatic II Aquatic II Coxidized Presence Recent Ir 7) Other (E) No Depth (i No Depth (i	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C ron Reduction in Plo xplain in Remarks) nches): nches):	Living Roof 4) wed Soils (C	Hydric So Sec	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) Day Season? Yes No
Remarks: Saturated to Surface - w/in ~ 6"(V) of wetland - source of satura May be recent Snowmelt	YDROLO YDROLO Vetland Hy Primary Indi Surface High W Saturat Water M Sedime Drift De Surface Inundat Surface Wa Water Table Saturation F Saturation F	No hydric OGY rdrology Indicators: icators (any one indicators) icators (any one indicators) water (A1) rater Table (A2) icon (A3) Marks (B1) (Nonriver) ent Deposits (B2) (Non- ent Deposits (B2) (Non- response (B3) (Nonriver) e Soil Cracks (B6) tion Visible on Aerial I Stained Leaves (B9) rvations: ater Present? Y e Present? Y epresent? Y apillary fringe) ecorred Data (stream	ator is suffi ine) nriverine) rine) magery (B res res	cient)	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C ron Reduction in Plo xplain in Remarks) nches): nches): I photos, previous ir	Living Root 4) wed Soils (C 	Hydric So Sec	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5) Day Present? Yes No
Remarks: Saturated to Surface - w/in ~ 6 (1) of merima - source of source of marks May be recent snowmelt	YDROLO YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Surface Inundat Water-S Field Obse Surface Wa Water Table Saturation R (includes ca Describe R	No hydric OGY rdrology Indicators: icators (any one indicators) icators (any one indicators) water (A1) rater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (Non- rough of the second second second second stained Leaves (B9) rvations: ater Present? Y e Present? Y present? Y apillary fringe) ecorded Data (stream	ator is suffi ine) nriverine) rine) magery (B és és res	icient) Salt Crus Biotic Cru Aquatic Iu Hydroger Oxidized Presence Recent Ir 7) Other (Es No Depth (i No Depth (i No Depth (i onitoring well, aeria	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C on Reduction in Plo xplain in Remarks) nches): nches): I photos, previous ir) Living Root 4) wed Soils (C	Hydric So Sec	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5) Day Present? Yes No
May be recent snowmelt	YDROLO Yetland Hy Primary Indi Surface High W ✓Saturat Water M Sedime Drift De Surface Nater-S Field Obse Surface Wa Water Table Saturation R (includes ca Describe R	No hydroiz oGY vdrology Indicators: icators (any one indicators) icators (any one indicators) icator Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (Non- ent Deposits (B2) (Non- ent Deposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial I Stained Leaves (B9) irvations: ater Present? Y Present? Y Present? Y apillary fringe) ecorded Data (stream	so i o o o o o o o o o o o o o o o o o o	icient) Salt Crus Biotic Cru Aquatic Iu Hydroger Oxidized Presence Recent Ir 7) Other (E) No Depth (i No Depth (i No Depth (i onitoring well, aeria	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C ron Reduction in Plo kplain in Remarks) nches): nches): nches): I photos, previous ir	Living Roof 4) wed Soils (C 	Hydric So Sec	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5) Dgy Present? Yes No
pray se present and a second	YDROLO YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Surface Inundat Water-5 Field Obse Surface Wa Water Table Saturation F (includes ca Describe Ro	No hydriz OGY vdrology Indicators: icators (any one indicators) water (A1) later Table (A2) ion (A3) Marks (B1) (Nonriveriant ent Deposits (B2) (Nonriveriant ent Deposits (B3) (Nonriveriant	so i i i i i i i i i i i i i i i i i i i	icient) Salt Crus Biotic Cru Aquatic Iu Hydroger Oxidized Presence Recent Ir Other (E) No Depth (i No Depth (i Depth (i Dept	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along of Reduced Iron (C ron Reduction in Plo xplain in Remarks) nches): nches): I photos, previous ir w/in ~ 6	Living Root 4) wed Soils (C 	Hydric So Sec.	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5) Day Present? Yes No
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	Remarks: YDROLO Vetland Hy Primary Indi Surface High W Saturati Water M Sedime Drift De Surface Inundat Water Table Surface Wa Water Table Saturation F (includes ca Describe R Remarks: May	No hydriz OGY rdrology Indicators: icators (any one indicators) water (A1) later Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (Non- apposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial I Stained Leaves (B9) rvations: ater Present? Y Present? Y Present? Y e Present? Y epresent? Y apillary fringe) ecorded Data (stream Safurtal be member 1990 Safurtal	Secil in ator is suffi ine) nriverine) rine) magery (B es res res a gauge, m to Secil in Support	icient) Salt Crus Biotic Cru Aquatic Iu Hydroger Oxidized Presence Recent Ir 7) Depth (i No Depth (i No Depth (i onitoring well, aeria	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C ron Reduction in Plo xplain in Remarks) nches): nches): nches): I photos, previous ir w/in ~ 6	Living Root 4) wed Soils (C wetta spections),	Hydric So Sec	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5)
	YDROLO Yetland Hy Yrimary Indi Surface High W Saturati Water M Sedime Drift De Surface Inundat Water-S Sield Obse Surface Wa Nater Table Saturation F includes ca Describe R Remarks: May	No hymiz OGY rdrology Indicators: icators (any one indicators) icators (any one indicators) water (A1) rater Table (A2) icon (A3) Marks (B1) (Nonriver ent Deposits (B2) (Non- reposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial I Stained Leaves (B9) rvations: ater Present? Y e Present? Y e Present? Y ecorded Data (stream Safumted be recent	ses ator is suffi ine) nriverine) rine) magery (B ges ges res res a gauge, m to Sujon	icient) Salt Crus Biotic Cru Aquatic Iu Hydroger Oxidized Presence Recent Ir 7) Other (E) No Depth (i No Depth (i No Depth (i No Depth (i onitoring well, aeria	t (B11) ust (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C ron Reduction in Plo xplain in Remarks) nches): nches): nches): nches): nches): nches): nches):	Living Root 4) wed Soils (C wetla spections),	Hydric So Sec	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5)
	Primary Indi Surface High W ✓ Saturat Water M Sedime Drift De Surface Inundat Water-S Field Obse Surface Wa Water Table Saturation f (includes ca Describe R Remarks: May	No hydriz OGY vdrology Indicators: icators (any one indicators) water (A1) later Table (A2) ion (A3) Marks (B1) (Nonriveriant ent Deposits (B2) (Non- ent Deposits	so, i , , , , , , , , , , , , , , , , , ,	icient) Salt Crus Biotic Cru Aquatic Iu Hydroger Oxidized Presence Recent Ir Other (E) No Depth (i No Depth (i No Depth (i No Depth (i onitoring well, aeria	t (B11) Ist (B12) nvertebrates (B13) n Sulfide Odor (C1) Rhizospheres along e of Reduced Iron (C ron Reduction in Plo kplain in Remarks) nches):	Living Roof 4) wed Soils (C spections), (V) s7	Hydric So Sec	ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5)
1

	City	County: Austin/F	Delta Sampling Date: 2/28/08
roject/Site: <u>SH 92 Austin</u>			State: CO Sampling Point: 6-7W
pplicant/Owner: <u>CDOT</u>	Sod	ion Township Ran	ae: 26, 145, 74W
nvestigator(s): <u>Andy Herb</u>	Seci	In Township, Rang	onver none): Concave_Slope (%):
andform (hillslope, terrace, etc.):	<u>in Loc</u>		Lang 127 52 25 Datum: NAD 83
ubregion (LRR): Interior Deserts	Lat: <u></u>	70 0	Long PEM
oil Map Unit Name: Aguic Nation	argids		
re climatic / hydrologic conditions on the site ty	/pical for this time of year?	Yes No	(If no, explain in Remains.)
re Vegetation, Soil, or Hydrolog	gy significantly dist	urbed? Are "N	Normal Circumstances present in Remarka
re Vegetation, Soil, or Hydrolog	gy naturally probler	natic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach	site map showing sa	mpling point lo	ocations, transects, important features, etc.
Hudrophytic Vegetation Present? Yes	/_ No	is the Sampled	Area
Hydric Soil Present? Yes	No	within a Wetlan	nd? Yes <u>V</u> No
Wetland Hydrology Present? Yes	No		
Remarks: Could contion of	large PEM wei	thank a spacin	ated w/lankers only
Julie for the state			
	Absolute D	ominant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.)	<u>% Cover</u> S	pecies? Status	Number of Dominant Species / (A)
1	· · · · · · · · · · · · · · · · · · ·	· · ·	
2			Total Number of Dominant / (B)
3		······	
4			Percent of Dominant Species /00 (A/B)
a in total Stratum	Total Cover:		
Sapling/Shrub Stratum			Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
3			OBL species X 1 =
4.			
5.	·		
	Total Cover:		LIPI species x 5 =
Herb Stratum	70	V FAC	Column Totals: (A) (B)
1. Dizpanis sprease	12 15	FACW	
2. Muhica serie aspire	10	FAC	Prevalence Index = B/A =
3			Hydrophytic Vegetation Indicators:
4			$-\sqrt{\frac{1}{2}}$ Dominance Test is >50%
5	· ·		Prevalence Index IS \$3.0
7			data in Remarks or on a separate sheet)
8		· · · · · · · · · · · · · · · · · · ·	Problematic Hydrophytic Vegetation ¹ (Explain)
0	Total Cover: <u>95</u>	48/19	
Woody Vine Stratum		,	¹ Indicators of hydric soil and wetland hydrology must
1			be present.
2	Total Cover		Hydrophytic
Ē			Vegetation Present? Yes Ves No
% Bare Ground in Herb Stratum	% Cover of Biotic Cr	ust	
Remarks: (me PEM wetla	I on edge o	f study a	nea: 1015 of 11Triplex on
amaster , lens der	to Main Hem	of Lawheer	1 Julch
for man ; or feas	- / / //	i	
			Arid West Version 11-1-200

SOIL

Sampling Point: 6-7W

rofile Description: (Describe I		_ ·					
Depth <u>Matrix</u>	%	Color (moist)	<u>x reatures</u> %	Tvpe ¹	Loc ²	Texture	Remarks
inches) Color (moist)	<u> </u>	25,5/2	5		M	clayey	- clay
0-14 134412		2.5 4 5/2					
			· ·				·····
· · · · · · · · · · · · · · · · · · ·				1			·
	<u> </u>						
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·	<u></u> .						
· · · · · · · · · · · · · · · · · · ·							
	lotion RM=	Reduced Matrix	² Location	: PL=Pore	Lining, R	C=Root Channe	I, M=Matrix.
Type: C=Concentration, D=Dep	able to all	RRs. unless othe	rwise note	ed.)		Indicators for	or Problematic Hydric Soils ³ :
		Sandy Red	lox (S5)			1 cm Mu	ick (A9) (LRR C)
Histosol (A1)		Stripped M	atrix (S6)			2 cm Mu	ick (A10) (LRR B)
Histic Epipedon (A2)		Loamy Mu	cky Mineral	I (F1)		Reduce	d Vertic (F18)
Black Histic (A3)		Loamy Gle	yed Matrix	(F2)		Red Par	ent Material (TF2)
Stratified Lavers (A5) (LRR (C)	Depleted N	Aatrix (F3)			Other (E	xplain in Remarks)
1 cm Muck (A9) (LRR D)	•	Redox Dar	k Surface ((F6)			
Depleted Below Dark Surfac	e (A11)	Depleted D	Dark Surfac	æ (F7)			
Thick Dark Surface (A12)		Redox Dep	pressions (F8)		31	f hydrophytic vegetation and
Sandy Mucky Mineral (S1)		Vernal Poo	ols (F9)			maicators o	any and any and the present.
Sandy Gleyed Matrix (S4)				· · ·		wellandi	iyalology mast oo proceeding
Restrictive Layer (if present):							/
Туре:						1	
Type: Depth (inches): Remarks: $\rho; + satura$	Find	Throughor	t-			Hydric Soil I	Present? Yes <u> </u>
Type: Depth (inches): Remarks: $\rho_{;+}$ fature	tad	Mirring how	J-			Hydric Soil I	Present? Yes <u> </u>
Type: Depth (inches): Remarks: $\rho; + $ Saturn	ted	Throng how	£-	· · · ·		Hydric Soil I	dary Indicators (2 or more required)
Type: Depth (inches): Remarks: $\rho, \neq $ for the productions IYDROLOGY Wetland Hydrology Indicators	ted	Throng hor	£-			Hydric Soil I Secon	dary Indicators (2 or more required) ater Marks (B1) (Riverine)
Type: Depth (inches): Remarks: $ ho;+$ Soturn IYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one indi	ful : cator is suff	Throng hor icient)	.			Hydric Soil I	dary Indicators (2 or more required) ater Marks (B1) (Riverine) adiment Deposits (B2) (Riverine)
Type: Depth (inches): Remarks: ρ ; $+$ fortum IYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one indi Surface Water (A1)	fed	icient)	st (B11)			Hydric Soil I	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine)
Type: Depth (inches): Remarks: ρ :+ Satura YDROLOGY Wetland Hydrology Indicators Primary Indicators (any one indi Surface Water (A1) High Water Table (A2)	tend	icient) Salt Cruz Biotic Cr	st (B11) ust (B12)	(212)		Hydric Soil I Secon W Secon D	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10)
Type: Depth (inches): Remarks: $\rho; \neq $ fortune MYDROLOGY Wetland Hydrology Indicators Primary Indicators (any one indi Surface Water (A1) High Water Table (A2) Saturation (A3)	f.d : cator is suff	icient) Salt Crus Sitic Crus Aquatic I	st (B11) ust (B12) Invertebrate	es (B13)		Hydric Soil I Secon W Se D D	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10)
Type: Depth (inches): Remarks: $\rho, \neq $ for the second seco	fad : cator is suff	icient) Salt Crus Sitic Crus Aquatic Cr Aquatic Cr	st (B11) ust (B12) Invertebrate n Sulfide C	es (B13) Odor (C1)		Hydric Soil I <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Di</u> <u>Secon</u> <u>Secon</u> <u>Di</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Secon</u> <u>Se</u>	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) rift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) nin Muck Surface (C7)
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Type: Depth (inches): Remarks: $\rho, \neq \int \int dt $	rine) cator is suff rine) ponriverine) erine) I Imagery (E Yes Yes Yes Yes Yes	icient) Salt Crus Biotic Cr Biotic Cr Aquatic I Hydroge Oxidized Presenc Presenc Recent I NoDepth (NoDepth (No)	st (B11) ust (B12) Invertebrate n Sulfide C I Rhizosphe e of Reduct ron Reduct ixplain in R (inches): (inches): (inches): al photos, p Mter- o C i - t c	es (B13) Odor (C1) eres along ted Iron (C tion in Plot temarks) /0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Living Rod 4) wed Soils (Hydric Soil I <u>Secon</u> <u>Secon</u> <u>U</u> W <u>Secon</u> <u>U</u> W <u>Secon</u> <u>U</u> D O O C (C6) <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u> <u>S</u>	present? Yes NO dary Indicators (2 or more required) ater Marks (B1) (Riverine) ater Marks (B1) (Riverine) rainage Patterns (B2) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) nin Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery (Challow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes No off hydrodrogy is ch aggrammetry
Type: Depth (inches): Remarks: $\rho_{i,f}$ fortune YDROLOGY Wetland Hydrology Indicators Primary Indicators (any one indi Surface Water (A1) // High Water Table (A2) // Saturation (A3) Water Marks (B1) (Nonrive Sediment Deposits (B2) (No Drift Deposits (B3) (Nonrive Surface Soil Cracks (B6) Inundation Visible on Aeria Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (streat Remarks: free water //Kuly high gi	rine) cator is suff rine) porriverine) erine) I Imagery (E Yes Yes Yes m gauge, m	Image has Internet for the second s	st (B11) ust (B12) Invertebrate n Sulfide C I Rhizosphe e of Reduct ron Reduct inches): (inches): (inches): (inches): al photos, p Mtter sc ister way e	es (B13) Odor (C1) eres along ted Iron (C tion in Ploy emarks) // o previous in 5 mi 2 m/ 2 m/	Living Rod 4) wed Soils (Hydric Soil I Secon Secon Secon W Secon D Secon D D D D D D D D D D D D D	present? Yes NO dary Indicators (2 or more required) ater Marks (B1) (Riverine) ater Marks (B1) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) nin Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery (Challow Aquitard (D3) AC-Neutral Test (D5) y Present? Yes No off hydrology is add - add and Mark

ct/Site: SH 92 Austin	City/C	ounty: <u>Austir</u>	n/Delta Sampling Date:
			State: Sampling Point: & - / W
cantowner	Sectio	on, Township, Ra	ange: 26, 145, 94W
stigator(s): <u>Any ries</u> <u>Appresent</u>	Local	I relief (concave,	, convex none): Com Cave Slope (%):
form (hillslope, terrace, etc.).	Lat: 38	48 8	_ Long: 107 52 24 _ Datum: NAD 8
egion (LRR): Marra Matra (7) ds		1	NWI classification:
Map Unit Name:	time of year? Y	ves No _	(If no, explain in Remarks.)
constantion Soil or Hydrology Si	gnificantly distur	bed? Are	"Normal Circumstances" present? Yes No
regetation, Soil, or Hydrology	aturally problem:	atic? (If n	needed, explain any answers in Remarks.)
	showing san	noling point	locations, transects, important features, et
MMARY OF FINDINGS – Attach site map s			
drophytic Vegetation Present? Yes No	»	is the Sample	ed Area
dric Soil Present? Yes No	, 	within a Wetla	and? Yes <u>No</u>
tland Hydrology Present? Yes No	<u>, </u>		had a mainstern and wette
marks: Up/and rowds she ditch	Mar La	min l	origh mansferd and a
1-7, no wetland.			
u · /			
GETATION		· · · · · · · · · · · · · · · · · · ·	Dominance Test worksheet:
	Absolute Doi % Cover Sp	ecies? Status	- Number of Dominant Species
ee Stratum (Use scientific names.)			That Are OBL, FACW, or FAC: (A)
	<u>.</u>		- Total Number of Dominant 2-
	- <u></u>		_ Species Across All Strata: (B)
		······································	- Percent of Dominant Species 50
Total Cove	r:		That Are OBL, FACVV, or FAC.
apling/Shrub Stratum			Prevalence Index worksheet:
		·	Total % Cover of: Multiply by:
			$-$ OBL species $ 2$ x^{+} $ -$
			$= \frac{135}{135}$
			FACU species X4 =
erb Stratum	·F:	1 -	UPL species $40 \times 5 = 200$
Distribilis spicata	40	- FAC	Column Totals: (A) (A)
Bromus tectoring	- <u>-20</u> _		Prevalence Index = $B/A = 3.94$
Eremonnum tritleym	- 10 -	ur l	Hydrophytic Vegetation Indicators:
Hordenik usaming		UPI	L Dominance Test is >50%
Descurainia pinnina		upi	Prevalence Index is ≤3.0 ¹
Acroption repairs			Morphological Adaptations ¹ (Provide supporting
·			Problematic Hydrophytic Vegetation ¹ (Explain)
Total Cove	er: <u>85</u>	43/17	
Voody Vine Stratum		1	¹ Indicators of hydric soil and wetland hydrology mu
			be present.
			Hydrophytic
	or of Piotic Cruc	t O	Vegetation Present? Yes No
% Bare Ground in Herb Stratum % Cov		,	#122.11.4.1
		near	Willed 5-1 an canneer
Remarks: Upland anca in roads.	the alpha	, ,	
Remarks: Upland ance in roads.	Salt grass	, but no	o wetland; weedy w/ signif.

6-7U Sampling Point: SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Remarks Matrix Type¹ Loc² Depth % Color (moist) % Color (moist) (inches) Clayey_ - clay 100 2.504 0-12 M C 2 2.545/6 98 12-16 ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) _ 1 cm Muck (A9) (LRR C) ____ Sandy Redox (S5) _ 2 cm Muck (A10) (LRR B) ____ Histosol (A1) _ Stripped Matrix (S6) ____ Histic Epipedon (A2) Reduced Vertic (F18) Loamy Mucky Mineral (F1) ____ Black Histic (A3) _ Red Parent Material (TF2) Loamy Gleyed Matrix (F2) ____ Hydrogen Sulfide (A4) Other (Explain in Remarks) Depleted Matrix (F3) ____ Stratified Layers (A5) (LRR C) Redox Dark Surface (F6) ___ 1 cm Muck (A9) (LRR D) Depleted Dark Surface (F7) ____ Depleted Below Dark Surface (A11) Redox Depressions (F8) _ Thick Dark Surface (A12) ¹Indicators of hydrophytic vegetation and Vernal Pools (F9) wetland hydrology must be present. Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): No Type: _ Yes Hydric Soil Present? Depth (inches): Soil damp throughout profile Remarks: HYDROLOGY Secondary Indicators (2 or more required) Wetland Hydrology Indicators: Water Marks (B1) (Riverine) Primary Indicators (any one indicator is sufficient) ____ Sediment Deposits (B2) (Riverine) ____ Salt Crust (B11) ____ Surface Water (A1) __ Drift Deposits (B3) (Riverine) ____ Biotic Crust (B12) _ High Water Table (A2) _ Drainage Patterns (B10) _ Aquatic Invertebrates (B13) ___ Dry-Season Water Table (C2) ____ Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) (Nonriverine) ____ Thin Muck Surface (C7) Oxidized Rhizospheres along Living Roots (C3) ____ Sediment Deposits (B2) (Nonriverine) Crayfish Burrows (C8) Presence of Reduced Iron (C4) ____ Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) (Nonriverine) Recent Iron Reduction in Plowed Soils (C6) _ Surface Soil Cracks (B6) ____ Shallow Aquitard (D3) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: Yes No ____ Depth (inches): _ Surface Water Present? / Depth (inches): _____ Yes ____ No_ Wetland Hydrology Present? Yes Water Table Present? Depth (inches): No Yes ____ Saturation Present? Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Pit damp, but no indicators Remarks:

Arid West - Version 11-1-2006

	· · · · · · · · · · · · · · · · · · ·	Austin/Dalta	Sampling Date: 2/28/4
oject/Site: <u>SH 92 Austin</u>			State: CO Sampling Point: 6-2W
plicant/Owner: <u>CDOT</u>		Denga	71.145 94W
vestigator(s): <u>Andy Herb</u>	Section, I	ownsnip, Range	(and a let Slope (%); O
ndform (hillslope, terrace, etc.):	Local relie	af (concave, conve	(107 62 - 23 Datum: MO(3)
bregion (LRR):Interior Deserts	Lat: <u>_387D</u>		
il Map Unit Name:	M		NVVI classification:
e climatic / hydrologic conditions on the site typical for	this time of year? Yes _	V No	(If no, explain in Remarks.)
e Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Norm	al Circumstances" present? Yes No
e Vegetation, Soil, or Hydrology	naturally problematic?	(If needed	, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site ma	ap showing sampli	ng point locat	ions, transects, important features, etc
Underschutig Verschutign Bresent? Ves VI	No	the Sempled Area	
Hydric Soil Present? Yes	No wit	hin a Wetland?	Yes No
Wetland Hydrology Present? Yes	No		
Remarks: 1 head bud the westland	11 - no defir	ud chann	al for catch; part it a
Lawrence Brock and have	r of serve we	endy verse	forthing adjacent to wellas
work ten werton; power		10	
ECETATION			
EGETATION	Absolute Domina	nt Indicator Do	minance Test worksheet:
Tree Stratum (Use scientific names.)	<u>% Cover</u> Species	? Status Nu	mber of Dominant Species
l		Tha	at Are OBL, FACW, of FAC.
2		Tot	tal Number of Dominant
3		Sp	
4		Pe	ercent of Dominant Species
Total C Sepling/Shrub Stratum	over:		
1	· · · · · · · · · · · · · · · · · · ·	Pro	evalence Index worksheet:
2			Total % Cover of: Multiply by:
3		OE	BL species × 1 =
4	· · · · · · · · · · · · · · · · · · ·	FA	ACW species X 2 =
5.		FA	
Total C	cover:		
Herb Stratum	50 /	FAC	PL species ^ (A) (B)
1. Displais spices a	20 1	FACN	
2. popurous yra up	10	OBL	Prevalence Index = B/A =
Bhaland emissionacca	10	OBL Hy	verophytic Vegetation Indicators:
5 Junius Baltrens	2	FACW -	Dominance Test is >50%
6 lactuca semiola	2	FACU -	Prevalence Index is ≤3.0
7 Asclepias speciosa	/	FACN -	Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
8.			Problematic Hydrophytic Vegetation ¹ (Explain)
Total (Cover: <u>95</u> 487	/19 -	
Woody Vine Stratum		1	ndicators of hydric soil and wetland hydrology must
1		be	e present.
2		— — Н	lydrophytic /
Total			egetation Vesent? Yes No
% Bare Ground in Herb Stratum %	Cover of Biotic Crust	P	
Remarks: Longe PEM wetland w/ Lawhend Gulch; pockets	scattered Tan of very weed	parix along	+ near mainstem of ation algacout to wetland
and levelile Tracin	- Circium	arvemse.	
Mostly Acroptilon, Tamarix	, a cirsium	arvemu.	

DIL							Aho	of indicators		
rofile Desc	cription: (Describe	to the dept	h needed to docu	ment the i	indicator	or confirm	the absence	of indicators.	.)	
Depth	Matrix		Redo	x Feature	S Turno ¹	1.002	Texture		Remarks	
inches)	Color (moist)		Color (moist)	%			Claser	losse n	vote citty	clan
0-1	2.5 y 3/1	100					- Chayly	Citta	-13	
1-15	2.545/2	95	104R4/6		<u> </u>	<u>_m</u>	Cayey	sing	<i>cia</i> -j	
		·								
				² l ocatio	n: PI =Po	re Lining, f		nel, M=Matrix.		
Type: C=C	Concentration, D=Dep	pietion, RM-	Reduced Matrix.	erwise no	ted.)		Indicators	for Problema	atic Hydric Soil	s³:
iyunc 301		un	Sandy Red	dox (S5)			1 cm I	Muck (A9) (LR	RC)	
Histic F	Epipedon (A2)		Stripped N	latrix (S6)			2 cm l	Muck (A10) (L	RR B)	
Black H	listic (A3)		Loamy Mu	cky Miner	al (F1)			ced Vertic (F18	5) (TE2)	
Hydrog	en Sulfide (A4)		Loamy Gle	eyed Matri	x (F2)			Grent Material	marks)	
Stratifie	ed Layers (A5) (LRR	C)	Depleted	Matrix (F3)); (EC)	9			inano)	
1 cm N	luck (A9) (LRR D)	(Redox Da	rk Sunace Dark Surfa	(FO) ace (F7)					
Deplet	ed Below Dark Surfa	ce (A11)	Depieted i Redox De	pressions	(F8)					
Thick L	Jark Sufface (A12)		Vernal Po	ols (F9)	()		³ Indicators	s of hydrophyti	c vegetation and	
Sandy	Gleved Matrix (S4)						wetlan	d hydrology m	ust be present.	
Ganuy	Laver (if present):								4	
Type	, , , _ _, _ , _ _, _ , _ _, _ , _						1 1		/	
IVDE.										
Depth (i Remarks:	hit whin 1	'{V}) of	F lawheed	cha	nnel		Hydric So	il Present?	Yes N	lo
Depth (i Remarks:	nches): <i>p;t w/in 1</i>	'{V}) #	F lawheed	cha	nnel		Hydric So	il Present?	Yes N	lo
Depth (i Remarks:	hit whin 1 OGY	'(V) 51	F lambed	' cha	nnel		Hydric So	il Present? ondary Indicate	Yes N	lo
Depth (i Remarks: IYDROL Wetland H	inches): $\beta; + \scale / in / i$	' (V) 57	F lawheed	' Cha	nnel		Hydric So Sec	il Present? ondary Indicate Water Marks (Yes N ors (2 or more re (B1) (Riverine)	lo
Depth (i Remarks: IYDROL Wetland F Primary In	high market in the second seco	' (V) or s: icator is suf	ficient)	с с st (B11)	nnel		Hydric So Sec	il Present? ondary Indicate Water Marks (Sediment Dep	Yes N ors (2 or more re (B1) (Riverine) posits (B2) (Rive	lo
Depth (i Remarks: IYDROL Wetland F Primary In Surfac	hinches):	'(V) or s: icator is suf	ficient) Salt Cru Biotic C	st (B11)	nnel		Hydric So Sec	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits	Yes N ors (2 or more re (B1) (Riverine) posits (B2) (Rive (B3) (Riverine)	lo equired) rine)
Eppth (i Remarks: IYDROL Wetland F Primary In ✓ Surfac High V	hinches):	' (V) of s: licator is suf	ficient) Salt Cru Biotic Cru Biotic Cru	st (B11) Invertebra	nnul	· · · · · · · · · · · · · · · · · · ·	Hydric So	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits Drainage Patt	Yes N ors (2 or more re (B1) (Riverine) posits (B2) (Rive (B3) (Riverine) erns (B10)	lo equired) rine)
Primary In ✓ Surfac U Satura Vetand F Vetland F Surfac → Satura Veta	inches):	' (/) of s: icator is suf	ficient) Salt Cru Sidt Cru Biotic Ci Aquatic Hydroge	st (B11) rust (B12) Invertebra en Sulfide	nn d ates (B13) Odor (C1)		Hydric So	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits Drainage Patt Dry-Season V	Yes N ors (2 or more re (B1) (Riverine) posits (B2) (Rive (B3) (Riverine) erns (B10) Vater Table (C2)	io quired) rine)
Depth (i Remarks: IYDROL Wetland F Primary In ✓ Surfac — High V ✓ Satura — Water Sedir	OGY ydrology Indicators dicators (any one ind ce Water (A1) Water Table (A2) ation (A3) Marks (B1) (Nonrive pent Deposits (B2) (N	' (/) or s: licator is suf erine)	ficient) — Salt Cru — Biotic Ci — Aquatic — Hydroge	st (B11) rust (B12) Invertebra en Sulfide d Rhizospi	ates (B13) Odor (C1) heres alor	ng Living R	Hydric So	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits Drainage Patt Dry-Season V Thin Muck Su	Yes ors (2 or more re (B1) (Riverine) posits (B2) (Riverine) (B3) (Riverine) terns (B10) Vater Table (C2) prface (C7)	lo
Depth (i Remarks: IYDROL Wetland F Primary In ✓ Surfac — High V ✓ Satura — Water — Water — Sedim Driff [hinches):	' (/) or s: jcator is suf lonriverine /erine)	ficient) — Salt Cru — Salt Cru — Biotic C — Aquatic — Hydroge — Oxidized — Presence	st (B11) rust (B12) Invertebra en Sulfide d Rhizospi ce of Redu	ates (B13) Odor (C1) heres alor iced Iron (ng Living R C4)	Hydric So Sec. 	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits Drainage Patt Dry-Season V Thin Muck Su Crayfish Burr	Yes N ors (2 or more re (B1) (Riverine) posits (B2) (Riverine) (B3) (Riverine) terns (B10) Vater Table (C2) Inface (C7) pows (C8)	io equired) rine)
Depth (i Remarks: IYDROL Wetland H Primary In ✓ Surfac High V ✓ Satura Vater Sedim Drift I Surfac	inches):	' (/) o s: licator is suf lonriverine) /erine)	ficient) — Salt Cru — Biotic Ci — Aquatic — Hydroge — Oxidized — Presence — Recent	st (B11) rust (B12) Invertebra en Sulfide d Rhizospi ce of Redu Iron Redu	ates (B13) Odor (C1) heres alor iced Iron (ction in Pl	ng Living R C4) owed Soils	Hydric So Sec. 	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits Drainage Patt Dry-Season V Thin Muck Su Crayfish Burre Saturation Vis	Yes N ors (2 or more re (B1) (Riverine) posits (B2) (Rive (B3) (Riverine) erns (B10) Vater Table (C2) prface (C7) pows (C8) sible on Aerial In sible on Aerial In	io quired) rine) hagery (CS
Depth (i Remarks: IYDROL Wetland H Primary In ✓ Surfac — High V ✓ Satura — Water — Sedim — Drift ⊑ — Surfac Inund	Angle Constant of the second s	' (/) of s: icator is suf lonriverine /erine) al Imagery (l	ficient) — Salt Cru — Biotic Ci — Aquatic — Hydroge) Oxidized — Presend — Recent B7) Other (B	st (B11) rust (B12) Invertebra en Sulfide d Rhizospi ce of Redu Iron Redu Explain in	ates (B13) Odor (C1) heres alor iced Iron (ction in Pl Remarks)	ng Living R C4) owed Soils	Hydric So Sec. 	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits Drainage Patt Dry-Season V Thin Muck Su Crayfish Burro Saturation Vis Shallow Aquit	YesN ors (2 or more re (B1) (Riverine) posits (B2) (Rive (B3) (Riverine) erns (B10) Vater Table (C2) inface (C7) pows (C8) sible on Aerial In tard (D3) Toat (D5)	io equired) rine) hagery (CS
Depth (i Remarks: IYDROL IYDROL Wetland F Primary In ✓ Surfac — High V ✓ Satura — Water — Sedim — Drift I — Surfac — Inund Watel	Antipology Indicators Antipology Indicators dicators (any one indi- ce Water (A1) Nater Table (A2) ation (A3) Marks (B1) (Nonriven- nent Deposits (B2) (Nonriven- ce Soil Cracks (B6) ation Visible on Aeria r-Stained Leaves (B9)	rine) s: licator is suf lonriverine) verine) al Imagery (l	ficient) — Salt Cru — Biotic Ci — Aquatic — Hydroge — Oxidized — Presend — Recent B7) — Other (B	st (B11) rust (B12) Invertebra en Sulfide d Rhizospi ce of Redu Iron Redu Explain in	ates (B13) Odor (C1) heres alor iced Iron (ction in Pl Remarks)	ng Living R C4) owed Soils	Hydric So Sec 	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits Drainage Patt Dry-Season V Thin Muck Su Crayfish Burro Saturation Vis Shallow Aquit FAC-Neutral	Yes <u>ors (2 or more re</u> (B1) (Riverine) posits (B2) (Rive (B3) (Riverine) terns (B10) Vater Table (C2) urface (C7) poss (C8) sible on Aerial In tard (D3) Test (D5)	io rauired) rine)
Depth (i Remarks: IYDROL Wetland F Primary In Surfac Bight V Satura Water Bedin Drift I Surfac Inund Field Obs	hinches):	r (r) or s: icator is suf lonriverine) rerine) al Imagery (l i)	ficient) — Salt Cru — Salt Cru — Biotic C — Aquatic — Hydroge — Oxidized — Presend — Recent B7) — Other (B	st (B11) rust (B12) Invertebra en Sulfide d Rhizospi ce of Redu Iron Redu Explain in	ates (B13) Odor (C1) heres alor iced Iron (ction in PI Remarks)	ng Living R C4) owed Soils	Hydric So Sec. 	il Present? ondary Indicate Water Marks (Sediment Dep Drift Deposits Drainage Patt Dry-Season V Thin Muck Su Crayfish Burro Saturation Vis Shallow Aquit FAC-Neutral	Yes N ors (2 or more re (B1) (Riverine) posits (B2) (Riverine) (B3) (Riverine) terns (B10) Vater Table (C2) Inface (C7) pows (C8) sible on Aerial Intard (D3) Test (D5)	io equired) rine) hagery (CS
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Project/Site: STI 92 Austin		City/County:	Austin/Del	ta	Sampling Date: _	
CDOT		_		_ State: <u>CO</u>	Sampling Point:	6-2
Applicant/Owner, CDO1		Section, Tow	nship, Range:	26,145	, 94W	. <u></u>
Investigator(s): Andy here	me	- Local relief (concave, conv	/ex, none):	ne Sic	ope (%):
Landform (hillslope, terrace, etc.).	l at:	20 48	9 Lo	ng: 107 52	- 2-3 Datu	um: <u>NAD</u>
Subregion (LRR):	Tatvaraid!	10 10	1	NWI classifi	cation:	
Soil Map Unit Name:	tunical for this time of	vear? Yes V	No	(If no, explain in F	Remarks.)	1
Are climatic / hydrologic conditions on the site	e typical for this time of	tly disturbed?	Are "Nor	mal Circumstances"	present? Yes	<u> </u>
Are Vegetation, Soli, or Hydro	ology olymeturally i	problematic?	(If neede	d, explain any answe	ers in Remarks.)	
Are Vegetation, Soll, or Hydro			- naint loor	tione transacts	important f	eatures.
SUMMARY OF FINDINGS – Attac	h site map showl	ng sampling	point loca	ations, transect	s, important	
Hudrophytic Vegetation Present?	es No	le the	Sampled Ar	ea		1
Hydric Soil Present? Y	'es No/	withi	n a Wetland?	Yes	Noレ	_
Wetland Hydrology Present? Y	'es No					
Remarks: 1/2/201 tenn	ce on Land	head Fl	leo Lola 1	in - very	weldy.	-No
difficience i series			, i			*
,						
VEGETATION	Absolu	ute Dominant	Indicator C	ominance Test wo	rksheet:	
Tree Stratum (Use scientific names.)	<u>% Co</u>	ver Species?	<u>Status</u> N	umber of Dominant	Species	1
1	to the second		T	hat Are OBL, FACV	, of FAC:	(
2]]	Total Number of Dom	inant	2
3	· · · · · · · · · · · · · · · · · · ·		*	Species Across All St	rata	
4			F	Percent of Dominant	Species	50
a l'addate de Chartum	Total Cover:	 		I nat Are OBL, FACW	, 0117.0.	
Sapling/Shrub Stratum						
1			T	Prevalence Index w	orksheet:	
1	art and a second s			Prevalence Index we Total % Cover of	orksheet: :Mult	iply by:
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1. 2. 3. 4. 5.				Prevalence Index we Total % Cover of OBL species FACW species FAC species	orksheet:	iply by:
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1 2 3 4 5 Herb Stratum	Total Cover:			Prevalence Index we Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals:	orksheet: x1 = x2 = x3 = x4 = x5 = (A)	iply by:
1 2 3 4 5 <u>Herb Stratum</u> 1; D; zh; ch li spicata 1; c; nams	Total Cover:		FAC UPL	Prevalence Index we Total % Cover of OBL species FACW species FAC species FAC species FACU species UPL species Column Totals:	with the second seco	iply by:
1 2 3 4 5 <u>Herb Stratum</u> 1 1 1 2 2 Acroptilon repens 2 2 2 3 3 3 4 5 1 5 2 4 5 1 5 2 1 5 2 1 5 2 1 5 2 1 5 2 2 1 2 2 2 2 2 3 3 3 3 3 3 3 3 4 5 2 3	Total Cover:		FAC UPL FACW	Prevalence Index we Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence Ind	orksheet:	iply by:
1 2 3 4 5 <u>Herb Stratum</u> 1 1 1 2. <u>Acroptilon repars</u> 3 3 <i>Muhlenbergia aspertor</i> 4 4 3 <i>Muhlenbergia aspertor</i> 4 4 5 5 1 1 5 1 2 3 <i>Muhlenbergia aspertor</i> 4 5 1 5 1 5 3 <i>Muhlenbergia donba</i>	Total Cover: 		FAC UPL FACW UPL	Prevalence Index we Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence Ind Hydrophytic Vegeta	mult x1 = x2 = x3 = x4 = x5 = (A) ex = B/A = tion Indicators:	iply by:
1 2 3 4 5 <u>Herb Stratum</u> 1. <u>D.352h 13 spizata</u> 2. <u>Acroptilon repens</u> 3. <u>Muhlenbergia aspertor</u> 4. <u>Cardana donba</u> 5.	Total Cover: 		FAC UPL FACW UPL	Prevalence Index we Total % Cover of OBL species FACW species FAC species FACU species UPL species Column Totals: Prevalence Ind Hydrophytic Vegeta Dominance Test	mult x1 = x2 = x3 = x3 = x4 = x5 = (A) ex = B/A = tion Indicators: is >50%	iply by:
1 2 3 4 5 <u>Herb Stratum</u> 1. <u>Distich 13 spicata</u> 2. <u>Acroptilon reparts</u> 3. <u>Muhlenbergia aspertor</u> 4. <u>Cardana druba</u> 5 6	Total Cover: 		FAC UPL FACW UPL	Prevalence Index we Total % Cover of OBL species FACW species FACU species FACU species UPL species Column Totals: Prevalence Inde Prevalence Inde Prevalence Inde	orksheet: Mult x 1 = x x 2 = x x 3 = x x 4 = x x 5 = x (A) x ex = B/A = x tion Indicators: x >50% x is ≤3.01 x dantations1 (Provident for the second for the se	iply by:
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	Concentration D=Der		Reduced Matrix	² Location: PL=P	Pore Lining, R	C=Rd	ot Chann	el, M=Matri	x.		
ivdric Soil	Indicators: (Applic	able to all I	RRs, unless othe	rwise noted.)		In	dicators	for Probler	natic Hydri	c Soils ³ :	
Histoso	I (A1)		Sandy Rec	ox (S5)		_	_ 1 cm M	uck (A9) (L	RR C)		
Histic E	pipedon (A2)		Stripped M	atrix (S6)		_	_ 2 cm M	uck (A10) (LRR B)		
Black H	listic (A3)		Loamy Mu	cky Mineral (F1)			_ Reduce	d Vertic (F	18)		
Hydrog	en Sulfide (A4)		Loamy Gle	yed Matrix (F2)		_	_ Red Pa	rent Materi	al (1+2) Romarka)		
Stratifie	ed Layers (A5) (LRR	C)	Depleted N	Atrix (F3)			_ Other (Explain in r	(emarks)		
1 cm M	luck (A9) (LRR D)		Redox Dar	k Surface (F6)							
Deplete	ed Below Dark Surface	ce (A11)	Depieted L								
Thick L)ark Surrace (A12) Mucky Mineral (S1)		Vernal Por	ols (F9)		³	dicators	of hydrophy	tic vegetatio	on and	
Sandy	Gleved Matrix (S4)						wetland	hydrology r	nust be pre	sent.	
Oanuy	Laver (if present):									,	
0000100100	20.90. (· · · ·
Type											st.
Type: Depth (ii Remarks:	nches): Some calc	oreous	Material	below 12	"; p	Hy 7 d	dric Soil	Present? Throng	Yes	_ No_ profi	<u> </u> e
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Arid West - Version 11-1-2006

of D 1 187. -10

WETLAND DETER	RMINATION D		M – Ario	west Region
Project/Site: SH 92 Austin	City/C	ounty: <u>Aus</u>	stin/Delta	Sampling Date: 2/28/08
Applicant/Owner: CDOT		· · · · · · · · · · · · · · · · · · ·	\$	tate: <u>CO</u> Sampling Point: <u>6-5 W</u>
Application And Herb	Section	on, Township,	Range:	26, 145, 940
nvestigator(s). <u>Andy note</u> Dury (S.M.	Loca	I relief (concav	ve, convex	. none):
_andform (nilisiope, tenace, etc.).	Lat: 38	48 9	Long	. 107 52 17 Datum: NAD 83
Subregion (LRR) Activity Natrargid	 {			NWI classification:
Soil Map Unit Name	is time of year? Y	/es 🗸 N	o	(If no, explain in Remarks.)
Are climatic / hydrologic conditions on the site typical for an	significantly distur	bed? A	re "Norma	al Circumstances" present? Yes No
Are Vegetation, Soll, or Hydrology	naturally problem	atic? (If needed,	explain any answers in Remarks.)
Are Vegetation, Soll, or Hydrology	chowing san	nling poir	nt locati	ons, transects, important features, etc.
SUMMARY OF FINDINGS – Attach site map	showing sai			
Hydrophytic Vegetation Present? Yes	No	Is the Sam	pled Area	
Hydric Soil Present? Yes !	No	within a We	etland?	Yes No
Wetland Hydrology Present? Yes	<u> 10</u>	<u> </u>	<u></u>	1. Lata feel hora
Remarks: Large PEM at toc-of-slo	ge (natur	-D; An	reast	to be ground way to the Third
Inchard bulch combined -/su	vace por	ding on	heav	I clay soil extends the
stf 92 to south side See	DP6-5W3) No h	your (1 indicately and to aight for
VEGETATION				
	Absolute Do	minant Indica	ator Do	hinance Test worksneet:
Tree Stratum (Use scientific names.)	% Cover St	Cles: Otati	Nul	at Are OBL, FACW, or FAC:(A)
1				al Number of Dominant
2			Sp	cies Across All Strata: (B)
3			Pe	rcent of Dominant Species
4 Total Cov	/er:		Th	at Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum			Pr	evalence Index worksheet:
1				Total % Cover of: Multiply by:
2			OE	3L species x 1 =
3			FA	CW species x 2 =
4			FA	C species x 3 =
5Total Co	ver:		FA	
Herb Stratum	30	V Fr	4c 0	L species A° (B)
1. Distichtis pierra		V FA	CW	
2. Mundenrougia apertal		u	PL	Prevalence Index = B/A =
3. <u>76.115.097.4107.70.407</u>			H	drophytic Vegetation Indicators:
4			-`	Dominance lest is $>30\%$
6.				Morphological Adaptations ¹ (Provide supporting
7			-	data in Remarks or on a separate sheet)
8	50	25/10		Problematic Hydrophytic Vegetation' (Explain)
Woody Vine Stratum		/:	1.	is the of hudrin coil and wetland hydrology must
1.			b	e present.
2				
Total Co	over:		V	egetation
% Bare Ground in Herb Stratum 50 % C	over of Biotic Cru	st	P	resent? Yes No
Remarks: A. I. Lucler low Veg 1.00.	er: lot	of Atri	plex	/ Thinspyrum and Distabilis on
May may them.				
Werlann permilion,				
				Arid West – Version 11-1-2006

ofile Description: (Describe to	the depth	needed to docur	nent the i	ndicator o	or confirm	n the abs	sence of	findicato	ors.)		
me Description. (Matrix	the depart	Redo	x Features	5							
nches) Color	(moist)	%	Color (moist)	%	Type ¹	_Loc ²	Text	ure		Remar	<u>(S</u>	
7-12 2.5	15/2	100					Cla	yez -	C	ay	(
2-110 2.5	15/2	100	Concernant of the second se				Cla	Yey -	d	ay sil	t stone	
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pe: C=Concentrati	ion, D=Deple	tion, RM=I	Reduced Matrix.	² Location	n: PL=Por	e Lining, I	RC=Rpol	Channe	el, M=Mai	nix.	ric Soils ³ :	
dric Soil Indicator	s: (Applicat	ble to all L	RRs, unless othe	rwise not	ed.)		mai	1 cm Mi		IRR C)		
Histosol (A1)			Sandy Red	lox (S5)				2 cm Mi	uck (A10)	(LRR B)		
Histic Epipedon (/	A2)		Stripped M	atrix (50) alcu Minoro				Reduce	d Vertic ((, F18)		
Black Histic (A3)			Loamy Mu	uky winera	ai(F1) ((F2)		+	Red Par	rent Mate	rial (TF2)		
_ Hydrogen Sulfide		1	Loarny Gle	Aatrix (F3)	· (• -)			Other (E	Explain in	Remarks)		
_ Stratified Layers ((139) (LKK U) I BR Di	l	Redox Dar	k Surface	(F6)		T	,				
_ 1 cm Muck (A9) (Dark Surface	(A11)	Depleted [Dark Surfac	ce (F7)							
_ Depleted Delow E	ce (A12)	()	Redox De	oressions ((F8)							
Sandy Mucky Mit	neral (S1)		Vernal Poo	ols (F9)			³ Ind	icators c	of hydrop	nytic vegeta	ation and	
Sandy Gleved Ma	atrix (S4)							vetland I	hydrology	must be p	resent.	
estrictive Layer (if	present):										1	
Type:									_			
Type: Depth (inches): temarks: No rec Crnst, b	dox fea ut da	tures	>bs - 1.k. capillary	dy de	ne to	high	Hydr pH	ric Soil I	Present?	Yes	No_	not
Type: Depth (inches): emarks: No re Crnst, b	dox fea ut dr	kures ne to	obs - 1.k. capillary	by de acti	ne to in).	high	Hydi PH	ric Soil I	Present?	Yes	No	not
Type: Depth (inches): emarks: Np rec Crnst, b (DROLOGY	dox fea ut dr	Aures ne to	obs - 1.k. capillary	dy de act.	ne to in).	high	Hydi PH	ric Soil I	Present?	Yes	No	
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Type: Depth (inches): Remarks: Mp FC Crost, b YDROLOGY YDROLOGY Vetland Hydrology Primary Indicators (a Surface Water (A High Water Table Saturation (A3) Water Marks (B' Sediment Deposits (B Sediment Deposits (B Surface Soil Cra Inundation Visib Water-Stained L Field Observations Surface Water Presen Saturation Present? (includes capillary fr Describe Recorded Remarks: Suface	Indicators: Indicators: Inv one indica A1) Indicators: Inv one indica A1) Indicators: Inv one indica (Nonriverial) Indicators: Inv one indica (Nonriverial) Indicators: Inv one indica (Nonriverial) Indicators: Inv one indica (Nonriverial) Indicators: Inv one indica (Nonriverial) Indicators: Inv one indica Indicators: Inv one indica Indicators: Ind	Aurof Aurof me to ator is suffi ine) nriverine) rine) magery (B ées ées res agauge, m	cient) Salt Crus Biotic Cr Biotic Cr Aquatic Hydroge Oxidized Presend Recent 7)Other (E NoDepth NoDepth NoDepth NoDepth NoDepth NoDepth NoDepth NoDepth NoDepth	st (B11) rust (B12) Invertebrat en Sulfide (d Rhizosph e of Reduce (inches): (inches): (inches): al photos, Lown	tes (B13) Odor (C1) heres alon ced Iron (C ction in Plo Remarks) <u>12</u> o previous i	g Living R (24) wwed Soils	Hydi P H Roots (C3 s (C6) Yetland H s), if avai	ric Soil I <u>Secon</u> W Secon W Secon D D D D D D D D D D T D C S S F S S S S S S S S S S S S S	Present?	Yes Yes Yes Cators (2 or (2	No rface (1) rmore required verine) (2) (Riverine) (2) (Riverine) (2) (Riverine) (2) (Riverine) (3) (4) (5) No (5) No	(C9)
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Type: Depth (inches): emarks: No rec Crost, b (DROLOGY /etland Hydrology rimary Indicators (a Surface Water (/ High Water Table Saturation (A3) Water Marks (B' Sediment Deposits Drift Deposits (B Surface Soil Cra Inundation Visib Water-Stained L Surface Soil Cra Inundation Visib Water Table Presen Saturation Present? includes capillary fr Describe Recorded Remarks: Sufface	Indicators: my one indicators: my one indicators: my one indicators: (Nonriveriation (A2)) (Nonriveriation (A	Aury Aury ator is suffi ine) magery (B res res res res fes fes fes for a gauge, m	cient) 	st (B11) ust (B12) Invertebrat en Sulfide (d Rhizosph e of Reduc iron Reduc Explain in F (inches): (inches): (inches): (inches): (inches):	tes (B13) Odor (C1) heres along ced Iron (C ction in Plc Remarks) 12 o previous i to ~	Living R (24) wed Soils wed Soils where where where	Hydi PH Roots (C3 s (C6) retland H s), if ava and f	ric Soil I <u>Secon</u> W Secon W Secon W Secon T D D D D D T C S S F ydrolog ilable: Jed	Present?	Yes Yes Yes Cators (2 or as (B1) (Riv Deposits (B3) (Riv Depo	No Face (rmore required verine) (2) (Riverine) (2) (Riverine) (3) (1) (2) (Riverine) (2) (Riverine) (3) (3) No (4) (4) (4) (4) (4) (4) (4) (4)	(C9)
Type: Depth (inches): emarks: No rec Crost, b Crost, b	Indicators: ny one indicators: ny one indicators: ny one indicators: (Nonriveriation) (Nonriveria	$f_{4} \sim f_{1}$ $f_{4} \sim f_{2}$ $f_{4} \sim f_{4}$ $f_{4} \sim f_{4}$ f_{4	$\frac{1}{2} \frac{1}{2} \frac{1}$	st (B11) ust (B12) Invertebrat en Sulfide (Hardin Reduce inches): (inches): (inches): (inches): al photos, formation forma	tes (B13) Odor (C1) heres along ced Iron (C ction in Plc Remarks) 12 o previous i to ~ m La a ch ch	g Living R (24) wed Soils mspection when	Hydi Phy Roots (C3 s (C6) fetland H s), if avai	ric Soil I <u>Secon</u> W Secon W D D D D D D D D D D D D D	Present?	Yes $\gamma_{1} \leq 4$, $\gamma_{2} \leq 4$, $\gamma_{3} \leq 4$, $\gamma_{4} \geq 4$, $\gamma_$	No reace (1) reace (1) reace (1) reace (1) reace (1) reace (1) No reace (1) No reace (1) reace (1) rea	(C9)

Arid West

WEILAND DE	ERIVINATION DATA I OTAL	2/28/08
oject/Site: <u>SH 92 Austin</u>	City/County: <u>Austi</u>	in/Delta Sampling Date
plicant/Owner: <u>CDOT</u>		State: <u></u> State: <u></u>
vestigator(s): <u>Andy Herb</u>	Section, Township, R	lange: (%); Stope (%);
ndform (hillslope, terrace, etc.):	Local relief (concave	, convex, none): <u>correate</u> Stope (76).
bregion (I BR): Interior Deserts	Lat: <u> 488</u> _	Long: 101 91-11 Datum print 12
Han Unit Name: Anyiz Natran	, ski	NWI classification:
in Map Only Name.	r this time of year? Yes No	(If no, explain in Remarks.)
	significantly disturbed? Are	e "Normal Circumstances" present? Yes No
Vegetation, Soli, or Hydrology	naturally problematic? (If	needed, explain any answers in Remarks.)
• Vegetation, Soli, or Hydrology	an showing sampling point	t locations, transects, important features, etc
JMMARY OF FINDINGS – Attach site in		
Hydrophytic Vegetation Present? Yes	No Is the Sample	led Area
-tydric Soil Present? Yes	∠ No within a Wet	land? Yes <u>V</u> NO
Netland Hydrology Present? Yes		10 L (Haz - Java, PEM complex
remarks: Continuation of Wetla	d 6-5 - conthe show	e of sinte perception
allocated wllawherd ball	In flood plain	
	<i>P</i>	
EGETATION		
	Absolute Dominant Indicato	or Dominance Test worksheet:
Tree Stratum (Use scientific names.)	<u>% Cover Species? Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC:(A)
1		
2		Total Number of Dominant Species Across All Strata: (B)
3		
4		That Are OBL, FACW, or FAC:(A/B
Sopling/Shrub Stratum		
1		Prevalence index worksheet.
2		
3.		= CODE species = x2 =
4		FAC species X3 =
5		FACIL species x4 =
Total	Cover:	UFL species x 5 =
Herb Stratum	80 V FAZ	Column Totals: (A) (E
1. Disticulis spicare	FA	(W)
2. Monumorigia aspecto	5 FM	Cut Prevalence Index = B/A =
11. Known Chenopod		- Hydrophytic Vegetation indicators.
5.		\sim Dominance Test is >30%
6		Prevalence index is 2000
7		data in Remarks or on a separate sheet)
8		Problematic Hydrophytic Vegetation ¹ (Explain)
Tota	1 Cover: <u>97</u> 47/19	
Woody Vine Stratum		¹ Indicators of hydric soil and wetland hydrology mus
1		be present.
2		Hydrophytic /
		Vegetation Present? Yes No
% Bare Ground in Herb Stratum 5	6 Cover of Biotic Crust	
Remarks: Part of BEW wethed 1	smplex on Lawhard b	which floodplains 10TS of Acrophil
1 fortage a monte	~ Into There useds .	lots of other hydrophy tre plan
an corneria in principal	Alex Charlesta	is sundence + Manitima. + Tamani
in other areas - Typha to	prova, schown been	
,		Arid West - Version 11-1-20

Sampling Point: 6-5W3 SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features Depth Matrix Type¹ Loc² Texture % Color (moist) Color (moist) (inches) 100 543 1.7 98 2.5 y5/6 2 ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 1 cm Muck (A9) (LRR C) ___ Sandy Redox (S5) ____ Histosol (A1) 2 cm Muck (A10) (LRR B) Stripped Matrix (S6) ____ Histic Epipedon (A2) _ Reduced Vertic (F18) Loamy Mucky Mineral (F1) Black Histic (A3) Red Parent Material (TF2) Loamy Gleyed Matrix (F2) ___ Hydrogen Sulfide (A4) Other (Explain in Remarks) Stratified Layers (A5) (LRR C) ✓ Depleted Matrix (F3) Redox Dark Surface (F6) ____ 1 cm Muck (A9) (LRR D) Depleted Dark Surface (F7) ____ Depleted Below Dark Surface (A11) Redox Depressions (F8) ____ Thick Dark Surface (A12) ³Indicators of hydrophytic vegetation and ____ Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present. Sandy Gleyed Matrix (S4) **Restrictive Layer (if present):** Type: Hydric Soil Present? Depth (inches): Pit saturated to surface Remarks: HYDROLOGY Secondary Indicators (2 or more required) Wetland Hydrology Indicators: Water Marks (B1) (Riverine) Primary Indicators (any one indicator is sufficient) Sediment Deposits (B2) (Riverine) Salt Crust (B11) ✓ Surface Water (A1) ___ Drift Deposits (B3) (Riverine) Biotic Crust (B12) High Water Table (A2) ___ Drainage Patterns (B10) ____ Aquatic Invertebrates (B13) Saturation (A3) _ Dry-Season Water Table (C2) Hydrogen Sulfide Odor (C1) Water Marks (B1) (Nonriverine) ____ Thin Muck Surface (C7) ____ Oxidized Rhizospheres along Living Roots (C3) Sediment Deposits (B2) (Nonriverine) Crayfish Burrows (C8) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Shallow Aquitard (D3) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: No _____ Depth (inches): Surface Water Present? ∠ No ____ Depth (inches): ____/ Water Table Present? Wetland Hydrology Present? Yes _ Depth (inches): __ No Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Free water at 1"; wetlad appears to be supported by high groundmitter Combined w/surface pording; source is Lawheard bulch Floodplain high groundwater high groundwater Arid West - Version 11-1-2006

	Citv/C	ounty:Austin/E	Delta Sampling Date: 2/28/0
			State:CO Sampling Point:6-ŚW
	Section	n Township Rand	ne: 26, 145, 94W
Investigator(s): <u>Andy Herb</u>		relief (concave, co	none): (mlave Slope (%): 0
Landform (hillslope, terrace, etc.):	Local	ud a	Long 107 (2 13 Datum: 1/10 2
Subregion (LRR): Interior Deserts		10 1	Long PET
Soil Map Unit Name: Hquiz Narrangi	<u>//</u>		NVI classification.
Are climatic / hydrologic conditions on the site typical for	or this time of year? Y	es No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly distur	bed? Are "N	Iormal Circumstances" present? Tes No
Are Vegetation, Soil, or Hydrology	naturally problema	atic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	nap showing sam	pling point lo	cations, transects, important features, et
Hydrophytic Vegetation Present? Yes	/ No	is the Sampled	Area
Hydric Soil Present? Yes	× No	within a Wetland	d? Yes No
Wetland Hydrology Present? Yes	No		
Remarks: Connected to wetter ASSOC. W/ Lawhead Entch	d at DP6	-5; Supportside Ste	ported by high groundwater
in roadside depression			
	Absolute Dor	ninant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.)	<u>% Cover</u> Spe	ecies? <u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
1			Total Number of Dominant
3			Species Across All Strata: (B)
4			Percent of Dominant Species
Total	Cover:		That Are OBL, FACW, or FAC: (A/E
Sapling/Shrub Stratum		а. С	Prevalence Index worksheet:
1			Total % Cover of: Multiply by:
2			OBL species x 1 =
а			FACW species x 2 =
5			FAC species x 3 =
Total	Cover:		FACU species x 4 =
Herb Stratum	50	J FAC	UPL species x 5
1. 1); (+ Unis splana		V FACW	
2. Muhlenbergia ageriouna		FACW	Prevalence Index = B/A =
3. Junchs Saurens	2	FAC	Hydrophytic Vegetation Indicators:
E Cichonium intubuc	2	UPL	Dominance Test is >50%
6			Prevalence Index is ≤3.0'
7			Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
8Tota		ui la	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum		1/1/	Indicators of hydric soil and wetland hydrology must
1			be present.
2			Hydrophytic
Tota		Ó	Vegetation Present? Yes No
% Bare Ground in Herb Stratum %			- tim of 11+th 1 -t NPL-F
Remarks: Small lobe of large	PEM Int con	nnecks to	portion of werland at Dr 6 3.
1. t. I in roadside deares	1.m - perm	eter orea	has lots at Thinspyrum, Ittrift
Diagra	aucesta Com	, dead A	triglex in wetland
Distoniis - Evicanouria on	2 TR OLINGTON JE		"
			Arid Mast _ Version 11-1-20

US Army Corps of Engineers

Arid West

1

Sampling Point: 6-5W2

oth	Matrix		Redo	<u>x Feature</u>	- 1	1002	Tevture	Remarks
ches)	Color (moist)	%	Color (moist)	%	Type	_LOC		Inco mate city clas
-2	2.512.5/1	100					chappy .	Toose, roors say any
-16	7.5.14/2	98	2545/6	2	<u> </u>	M	claying	Sitty clay
							/	
<u> </u>		<u> </u>						
					· ······			
	·			<u>. </u>			•	
					÷ .			
			m t i l blataire	² L continu		e Lining	RC=Root Chanr	nel, M=Matrix.
pe: C=C	oncentration, D=Dep	etion, RM	Reduced Matrix.	Location nwise not	ted.)	e Lining,	Indicators	for Problematic Hydric Soils ³ :
dric Soil	Indicators: (Application	able to all	LRRS, unless our	lov (S5)			1 cm N	luck (A9) (LRR C)
Histoso	I (A1)		Sandy Red	latrix (S6)	-		2 cm M	/luck (A10) (LRR B)
Histic E	pipedon (A2)		Loamy Mu	cky Miner	al (F1)		Reduc	ed Vertic (F18)
Black H	an Sulfide (A4)		Loamy Gle	eyed Matri	x (F2)		Red Pa	arent Material (TF2)
Stratifie	ed Lavers (A5) (LRR (C)	Depleted N	Matrix (F3)) I		Other	(Explain in Remarks)
1 cm M	uck (A9) (LRR D)	,	Redox Dar	rk Surface	(F6)			
Deplete	ed Below Dark Surfac	e (A11)	Depleted I	Dark Surfa	ice (F7)			
Thick D	ark Surface (A12)		Redox De	pressions	(F8)		Indicators	of hydrophytic vegetation and
Sandy	Mucky Mineral (S1)		Vernal Po	ois (F9)			wetland	hydrology must be present.
Sandy	Gleyed Matrix (S4)							
strictive	Layer (if present):							
Type:							Hydric Soi	Present? Yes No
Type: Depth (i emarks:	nches): Oxidized r	hizosp	here's in /or	wer /	layer.	•	Hydric Soi	I Present? Yes No
Type: Depth (i emarks:	nches):	h.zosp	haves in /or	wer)	layer.	,	Hydric Soi	I Present? Yes No
Type: Depth (i emarks: ′DROL	nches): Dxidized r OGY	h.zosp	here's in /5	wer h	layer .		Hydric Soi	I Present? Yes No
Type: Depth (i emarks: //DROL	nches): Dxidized OGY lydrology Indicators	h.z.csp :	here's in /5	wer /	layer .	;	Hydric Soi	I Present? Yes No ondary Indicators (2 or more required) Water Marks (B1) (Riverine)
Type: Depth (i emarks: /DROL /etland H rimary In	nches): Dxilized DGY lydrology Indicators dicators (any one indi	h Trosp : cator is su	fficient)	wer /	la yer		Hydric Soi	I Present? Yes No ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine)
Type: Depth (i emarks: //DROL /etland H rimary In Surfac	Dxidized Dxidized OGY Indicators dicators (any one indicators water (A1)	h.z-o.sp : cator is su	fficient)	wer /	la yer		Hydric Soi	No No
Type: Depth (i emarks: //DROL /etland H rimary Ind Surfac High V	Dxidized Dxidized OGY Indicators dicators (any one indicators water (A1) Vater Table (A2)	h.z.osp : cator is su	fficient) Salt Cru Biotic C	Ist (B11) Invertebra	ates (B13)	;	Hydric Soi	I Present? Yes No ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10)
Type: Depth (i emarks: //DROL /etland H rimary In Surfac High V / Satura	OGY hydrology Indicators dicators (any one indicators water Table (A2) ation (A3)	h.z.sp : cator is su	fficient) Salt Cru Salt Cru Biotic C Aquatic Hvdrone	ust (B11) Invertebra Invertebra	ayer ates (B13) Odor (C1)		Hydric Soi	I Present? Yes No Indary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2)
Type: Depth (i emarks: /DROLO /etland H rimary In Surfac High V Satura Water	OGY Nydrology Indicators dicators (any one indicators water (A1) Vater Table (A2) ation (A3) Marks (B1) (Nonrive	h I a Sp : cator is su erine)	fficient) Salt Cru Salt Cru Biotic C Aquatic Hydroge	ust (B11) rust (B12) Invertebra en Sulfide d Rhizosp	ates (B13) Odor (C1) heres alor	ng Living f	Hydric Soi	No No
Type: Depth (i emarks: /DROL /etland H rimary In Surfac High V Satura Water Sedim	Dxidized Dxidized OGY lydrology Indicators dicators (any one indi- ce Water (A1) Nater Table (A2) ation (A3) Marks (B1) (Nonrive ment Deposits (B2) (N	h 2 ~ Sp : cator is su erine) onriverine	fficient) Salt Cru Salt Cru Biotic C Aquatic Hydroge e) Oxidizer Present	ust (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu	ates (B13) Odor (C1) heres alor uced Iron (ng Living F	Hydric Soi	No No
Type: Depth (i emarks: //DROL /etland H rimary Inu Surfac High V / Satura Water Sedim Drift E	OCGY OCGY Indicators (any one indi- ce Water (A1) Water Table (A2) ation (A3) Marks (B1) (Nonrive- ment Deposits (B2) (Nonrive- ment Deposits (B3) (Norive- ment Deposits (B3) (Norive- ment Deposits (B3) (No	h. z. c. sp : cator is su erine) onriverine erine)	fficient) 	ust (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu	ates (B13) Odor (C1) heres alor uced Iron (uction in Pl	ng Living F C4) owed Soi	Hydric Soi Secc	No <u>ondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C
Type: Depth (i emarks: //DROL /etland H rimary In Surfac High V / Satura Satura Sedim Drift E Surfac	Dxilized Dxilized DXilized OGY hydrology Indicators dicators (any one indi- be Water (A1) Water Table (A2) ation (A3) Marks (B1) (Nonrive nent Deposits (B2) (N Deposits (B3) (Nonrive ce Soil Cracks (B6)	4. 2 - c sp : cator is su erine) onriverine erine)	fficient) 	est (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Exolain in	ates (B13) Odor (C1) heres alor uced Iron (uction in PI Remarks)	ng Living f C4) owed Soi	Hydric Soi Secc	I Present? Yes No ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C4) Shallow Aquitard (D3)
Type: Depth (i emarks: / / / / / / / / / / / / / / / / / / /	OGY Nydrology Indicators dicators (any one indi be Water (A1) Vater Table (A2) ation (A3) Marks (B1) (Nonrive ment Deposits (B2) (N Deposits (B3) (Nonrive ce Soil Cracks (B6) ation Visible on Aeria	h 2 o sp : cator is su erine) onriverine erine) i Imagery (fficient) Salt Cru Salt Cru Biotic C Aquatic Hydroge s) Oxidized Presend Recent (B7) Other (B	extern // inst (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Explain in	ates (B13) Odor (C1) heres alor uced Iron (uction in PI Remarks)	ng Living F C4) owed Soi	Hydric Soi Secc	I Present? Yes No Indary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C2) Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type: Depth (i emarks: //DROLO /etland H rimary In Surfac High V // Satura Surfac Sedim Sedim Drift E Surfac Inund Wate	OGY Dyidized OGY Dyidized OGY Dydrology Indicators dicators (any one indi se Water (A1) Vater Table (A2) ation (A3) Marks (B1) (Nonrive nent Deposits (B2) (N Deposits (B3) (Nonrive ce Soil Cracks (B6) ation Visible on Aeria r-Stained Leaves (B9)	h 2 o sp : cator is su erine) onriverine erine) i Imagery (fficient) Salt Cru Salt Cru Biotic C Aquatic Hydroge e)Oxidized Presend Recent (B7)Other (B	ust (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Explain in	ates (B13) Odor (C1) heres alor uced Iron (action in PI Remarks)	ng Living F C4) owed Soi	Hydric Soi Secc	No No
Type: Depth (i emarks: //DROL /etland H rimary In Surfac Satura Satura Satura Sedim Sedim Drift E Surfac Inund Wate Inund	OCGY Dyrid 13 and OCGY Dyrid 13 and OCGY Dyrid 13 and OCGY Dyrid 13 and OCGY Dyrid 13 and Dyrid 13 and	h 2 o Sp : cator is su erine) onriverine erine) I Imagery (fficient) 	Ist (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Explain in	ates (B13) Odor (C1) heres alor uced Iron (uction in Pl Remarks)	ng Living F C4) owed Soi	Hydric Soi Secc	No No
Type: Depth (i emarks: //DROL //etland H //etland	Dxi Lizad Dxi Lizad OXI Lizad OGY lydrology Indicators dicators (any one indi se Water (A1) Vater Table (A2) ation (A3) Marks (B1) (Nonrive nent Deposits (B2) (N Deposits (B3) (Nonriv ce Soil Cracks (B6) ation Visible on Aeria r-Stained Leaves (B9 servations: Vater Present?	h 2 o Sp : cator is su erine) onriverine erine) i Imagery () Yes	fficient) 	ast (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Explain in (inches):	ates (B13) Odor (C1) heres alor uced Iron (uction in Pl Remarks)	ng Living F C4) owed Soi	Hydric Soi Secc	No <u>ondary Indicators (2 or more required)</u> Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Shallow Aquitard (D3) FAC-Neutral Test (D5)
Type: Depth (i emarks: //DROL /etland H rimary In Surface Satura Satura Satura Satura Satura Satura Satura Surface Inund Surface W Water Tal	OGY OGY Indicators (any one indi- ce Water (A1) Water Table (A2) ation (A3) Marks (B1) (Nonrive ment Deposits (B2) (N Deposits (B3) (Nonrive ce Soil Cracks (B6) ation Visible on Aeria r-Stained Leaves (B9 gervations: Water Present? ble Present?	4. 2. c. sp i. cator is su erine) onriverine erine) I Imagery () Yes	fficient) Salt Cru Biotic C Biotic C Hydroge Younge NoPresend Recent (B7)Other (B NoDepth NoDepth NoDepth	ast (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Explain in (inches): (inches):	ates (B13) Odor (C1) heres alor uced Iron (uction in PI Remarks)	ng Living F C4) owed Soi	Hydric Soi Secc Secc	No No
Type: Depth (i emarks: // // // // // // // // // // // // //	Dxidizad Dxidizad OGY Additional Additional Additional Marks (B1) (Nonrive Marks (B1) (Nonrive Marks (B1) (Nonrive Marks (B3) (Nonrive Ce Soil Cracks (B6) Addition Visible on Aeria r-Stained Leaves (B9) Servations: Vater Present? Dele Present? Dele Present? Marks (B1) (Nonrive Marks (B3) (Nonrive) (Nonrive Marks (B3) (Nonriv	h 2 o sp : cator is su erine) onriverine erine) i Imagery () Yes Yes	fficient) 	ast (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Explain in (inches): (inches):	ates (B13) Odor (C1) heres alor uced Iron (uction in PI Remarks)	ng Living f C4) owed Soi	Hydric Soi	I Present? Yes No ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C3) Shallow Aquitard (D3) FAC-Neutral Test (D5) Day Present? Yes No
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Type: Depth (i emarks: YDROL Vetland H Primary Ind Surface High V Satura Water Surface V Water Tal Saturation (includes Describe Remarks:	Dxidized Dxidiz	h 2 o Sp : cator is su erine) onriverine erine) i Imagery () Yes Yes Yes Yes	fficient) 	ast (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Explain in (inches): (inches): (inches):	ates (B13) Odor (C1) heres alor uced Iron (action in PI Remarks) 9 , previous	ng Living F C4) owed Soi	Hydric Soi	I Present? Yes No ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (CS Shallow Aquitard (D3) FAC-Neutral Test (D5) ogy Present? Yes No
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Type: Depth (i emarks: //DROLU // // // // // // // // // // // // //	Dxidized Dxidiz	h 2 o Sp : cator is su erine) onriverine erine) i Imagery () Yes Yes Yes Yes Yes M gauge, - 4.72 S	fficient) 	ast (B11) rust (B12) Invertebra en Sulfide d Rhizosp ce of Redu Iron Redu Explain in (inches): (inches): (inches): ial photos	ates (B13) Odor (C1) heres alor uced Iron (uction in PI Remarks) 9 , previous	ng Living R C4) owed Soi	Hydric Soi	I Present? Yes No ondary Indicators (2 or more required) Water Marks (B1) (Riverine) Sediment Deposits (B2) (Riverine) Drift Deposits (B3) (Riverine) Drainage Patterns (B10) Dry-Season Water Table (C2) Thin Muck Surface (C7) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C3) Shallow Aquitard (D3) FAC-Neutral Test (D5) Day Present? Yes No Operation with Surface (Value) Operation Visible on Aerial Imagery (C4) Shallow Aquitard (D3) FAC-Neutral Test (D5) Day Present? Yes No Operation Visible on Aerial Imagery (C4) Difference
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WEILAND	DETERMINATION		2/20/08
Project/Site:SH 92 Austin	City/C	County: <u>Austin/D</u>	Sampling Date:
Applicant/Owner: <u>CDOT</u>			
nvestigator(s): <u>Andy Herb</u>	Secti	on, Township, Rang	je: <u>26</u> , <u>75</u> , <u>7</u> 4 <u>7</u> <u>4</u>
andform (hillslope, terrace, etc.):	Loca	l relief (concave, co	onvex, none): Slope (%):
Subregion (LRR):Interior Deserts	Lat: <u>38</u>	48 8	Long: $0 / 52 / 9$ Datum: $/ 7 / 8 2$
Soil Map Unit Name: Aquiz Natr	argods		NWI classification:
Are climatic / hydrologic conditions on the site typi	cal for this time of year?	/es No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly distu	rbed? Are "N	lormal Circumstances" present? Yes 📝 No
Are Vegetation, Soil, or Hydrology	naturally problem	atic? (If nee	ded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach si	te map showing sar	npling point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes		is the Sampled A within a Wetland	Area d? Yes <u>No </u>
Remarks: Roodside ditch are no hydrology, Area app	a w/some hyc wars to pond	brophytre u Surface	unter occasionally but not
enough to create we	; DP betwee	n po /06	es at wetland lats
VEGETATION	·	· · ·	T-stundohaofi
<u>Tree Stratum</u> (Use scientific names.)	Absolute Do <u>% Cover</u> Sp	minant Indicator ecies? <u>Status</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2			Total Number of Dominant
3.			Species Across All Strata: (B)
4		· · · · · · · · · · · · · · · · · · ·	Percent of Dominant Species
T	Fotal Cover:		That Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum			Prevalence Index worksheet:
2			Total % Cover of: Multiply by:
3			OBL species x1 =
4			FACW species X 2 =
5			FAC species X 4 =
-	Total Cover:		HACU species AT
Herb Stratum	35	V, FAC	Column Totals: (A) (B)
1. JAPRONIS Spread -	15	J UPL	
3 Atrialex canescans	5	UPL	Prevalence Index = B/A =
4. Unknown Chenopool I	5		Hydrophytic Vegetation Indicators:
5. Unknown Chenopod 2	2		$\begin{array}{c}$
6			Morphological Adaptations ¹ (Provide supporting
8.			Problematic Hydrophytic Vegetation ¹ (Explain)
	Total Cover: 62	21/12	
Woody Vine Stratum 1		· ·	¹ Indicators of hydric soil and wetland hydrology must be present.
2	Total Cover: % Cover of Biotic Crus	t	Hydrophytic Vegetation Present? Yes No
Remarks: Low vig cover: L area in roadfile dite	Distribilis is so h - between 7	mentat s too parts	parse + low growing; upland of wellad 6-5.

US Army Corps of Engineers

Arid West

file Descu	iption: (Describe to	o the dept	th needed to docum	nent the i	ndicator	or confirn	n the absence of	indicators.)
nth	Matrix	•	Redo	x Features	3		_	Pomarks
ches)	Color (moist)	%	Color (moist)	%	Type'			Remains
1-9	2.544/2	98	2.545/4	2	<u> </u>	<u></u>	clayey -	Saray Clay
7-16	2.545/3	100		<u> </u>			Clayen -	Sardy clay
	,					. ,	· · · · · · · · · · · · · · · · · · ·	
pe: C=Co	ncentration, D=Depl	etion, RM	Reduced Matrix.	² Location	: PL=Po	re Lining, I	RC=Root Channe	I, M=Matrix.
dric Soil I	ndicators: (Applica	ble to all	LRRs, unless othe	rwise not	ed.)			ck (A9) (I BB C)
Histosol	(A1)		Sandy Red	ox (S5)				ck (A10) (LRR B)
Histic Ep	ipedon (A2)		Stripped M	atrix (S6) sky Minera	L/E1)		Reduced	J Vertic (F18)
Black Hi	stic (A3)		Loamy Mu	ved Matriv	(F2)		Red Par	ent Material (TF2)
Hydroge	n Sulfide (A4)	•\	Depleted M	Aatrix (F3)	(1 <i>2</i>)		Other (E	xplain in Remarks)
Stratified	i Layers (A5) (LKR C ick (A9) (LRR D) I Below Dark Surface	e) (A11)	Redox Dar Depleted D	k Surface Dark Surface	(F6) ce (F7)			
Depleted Thick Da	ark Surface (A12)		Redox Dep	oressions ((F8)			
Sandy N	lucky Mineral (S1)		Vernal Poo	ols (F9)			Indicators o	f hydrophytic vegetation and widrology must be present.
Sandy C	Bleyed Matrix (S4)					·	wettand i	
strictive	Layer (if present):							
Tuno								
1 ype							Hydric Soil F	Present? Yes No
Depth (in	ches): So:/s indizan Manaahan	te ju	Face por	ling,	as o	profes	Hydric Soil F A high Curface	present? Yes <u>No</u> present? Yes <u>No</u>
Depth (in emarks:	ches): Soils indizat Bronghor	te su t;	tace port	ling et de	as of posts	prosed on	Hydric Soil F A high Surface	present? Yes <u>No</u> grannelmentar; po
Depth (in emarks: damp	ches): Soits indican Neverghan	te su t;	face por	ling et de	as of a solution of the soluti	prosed	Hydric Soil F A high Surface Second	present? Yes <u>No</u> <u>No</u>
Depth (in emarks: damp DROLC	ches): So: /s indizan Neverghan IGY Idrology Indicators:	te su t;	Figure port	ling, et de	as of posts	prosed on	Hydric Soil F A high Curface <u>Second</u> W	present? Yes <u>No</u> <u>grammelaintan</u> ; pr <u>dary Indicators (2 or more required</u> ater Marks (B1) (Riverine)
Depth (in emarks: DROLC etland Hy rimary Ind	ches): So:/s indizan Bronghor OGY Idrology Indicators: icators (any one indic	te sur t; cator is sur	ficient)	ling ef de st (B11)	as of gosts	prosed on	Hydric Soil F A high Curface Second W Se	dary Indicators (2 or more required ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine)
Depth (in emarks: DROLC etland Hy rimary Ind Surface	ches): Soils indican Throughow OGY Idrology Indicators: icators (any one indic Water (A1)	te sun t-;	flicient)	(m) (f) (f) (B11) (B12)	as of posts	profest	Hydric Soil F A high Curface Second Second Second Dr	Chary Indicators (2 or more required ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine)
Depth (in emarks: DROLC etland Hy rimary Ind Surface High W	ches): So: -/s , Woldow North worry how OGY Indrology Indicators: icators (any one indic Water (A1) ater Table (A2) ica (A2)	te su t	ficient) Salt Crus Salt Crus Biotic Cr Aquatic	the field of the f	45 0 1905.73	profen	Hydric Soil F A high Surface Second B B B D D D D	Present? Yes No grandworker , , grandworker , , dary Indicators (2 or more required) , , ater Marks (B1) (Riverine) , , ediment Deposits (B2) (Riverine) , , ift Deposits (B3) (Riverine) , , rainage Patterns (B10) , ,
Depth (in emarks: DROLC Etland Hy imary Ind Surface High W Saturat	ches): So: Is indicators: Thromyhow OGY Indrology Indicators: icators (any one indic Water (A1) ater Table (A2) ion (A3) Water (B1) (Nonrive	te san t-; cator is su	fficient) 	st (B11) ust (B12) Invertebrat on Sulfide (45 0 405.73 tes (B13) Odor (C1)	profed on	Hydric Soil F A high Surface Second W Second Dr Dr Dr Dr Dr Dr	dary Indicators (2 or more required ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2)
Depth (in emarks: / A M P / DROLC / etland Hy rimary Ind _ Surface _ High W _ Saturat _ Water I	ches): So: /s , white and The rome from the constraints of the	te su t sator is su	fficient) 	t (B11) ust (B12) Invertebrat on Sulfide (Rhizosph	as og gost tes (B13) Odor (C1) heres alon	m fr	Hydric Soil F hydric Soil F hydric Soil F Gurface Second W Second W Second Dr Dr Dr Dr Dr Dr Dr Dr Dr Dr	dary Indicators (2 or more required) ater Marks (B1) (Riverine) ediment Deposits (B2) (Riverine) ift Deposits (B3) (Riverine) rainage Patterns (B10) ry-Season Water Table (C2) nin Muck Surface (C7)
Depth (in emarks: Depth (in emarks: DROLC etland Hy fimary Ind Surface High W Saturat Water I Sedime	ches): So: /s , which and The romphon OGY drology Indicators: icators (any one indic water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonrive ent Deposits (B2) (Nonrive	te sea t sator is sur rine) ponriverine ponriverine	fficient) 	et (B11) st (B12) ust (B12) Invertebrat In Sulfide (I Rhizosph e of Reduc	tes (B13) Dodor (C1) heres alon ced Iron (m see	Hydric Soil F Hydric Soil F Lash high Curface Second Second W Second Di Di Di Di Di Di Di Di Di Di	Aresent? Yes <u>No</u> <u>oresent? Yes</u> <u>No</u> <u>oresent?</u> Yes <u>No</u> <u>oresent?</u> No <u>oresent?</u> No
Depth (in emarks: DROLC etland Hy rimary Ind Surface High W Saturat Water I Sedime Drift De	ches): So: Is , Mizan Norryhow OGY drology Indicators: icators (any one indic water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonrive ent Deposits (B2) (No eposits (B3) (Nonrive a Soil Cracks (B6)	te Sun t sator is sur rine) porriverine erine)	fficient) 	the of Reduction	tes (B13) Dodor (C1) beres alon ced Iron (ction in Pl	mg Living R C4) owed Soils	Hydric Soil F Hydric Soil F Los high Los Ace Second Second 	An and a second
Depth (in emarks: Depth (in emarks: DROLC etland Hy imary Ind Surface High W Saturat Water I Sedime Drift De Surface	ches): So-Is Mozan Arronghan OGY rdrology Indicators: icators (any one indic water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonrive ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) tion Visible on Aerial	rine) prine) priverine prine)	ficient) ficient)	the of Reduction	es (B13) Dodor (C1) Dodor (C1) neres alon ced Iron (ction in Pla Remarks)	mg Living R C4) owed Soils	Hydric Soil F Hydric Soil F Loc Ace Second Second M Second M Hydric Soil F Second Second M Hydric Soil F Second Second M Second M Hydric Soil F Second Sec	Aresent? Yes No We No Model of the second
Depth (in marks: Depth (in marks: DROLC etland Hy imary Ind Surface High W Saturat Saturat Sedime Drift De Surface Inunda	ches): So: Is , Mazar Thromy har OGY odrology Indicators: icators (any one indic water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonrive ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9)	rine) ponriverine erine) Imagery (fficient) 	e of Reduction R	tes (B13) Dodor (C1) heres alon ced Iron (ction in Pli Remarks)	ng Living R C4) owed Soils	Hydric Soil F Hydric Soil F <i>Lash high</i> <i>Lash ce</i> <u>Second</u> <u>Second</u> <u>W</u> <u>Second</u> <u>W</u> <u>Second</u> <u>W</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u> <u>Second</u>	Ac-Neutral Test (D5)
Depth (in marks: Depth (in emarks: DROLC etland Hy imary Ind Saturat Water I Saturat Unift De Surface Inunda Water- iald Obse	ches): So: //s , which and The romy hard of a romy hard of a romy one indice indicators (any one indice indicators (any one indice water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonrive ent Deposits (B2) (Non eposits (B3) (Nonrive e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) revations:	rine) prine) mriverine prine) Imagery (fficient) 	et (B11) ust (B12) Invertebrat In Sulfide (I Rhizosph e of Reduc Iron Reduc Explain in F	tes (B13) Dodor (C1) Deres alon ced Iron (ction in Ple Remarks)	ng Living R C4) owed Soils	Hydric Soil F hydric Soil F hydric Soil F Hydric Soil F Second Se	Ac-Neutral Test (D5)
Depth (in emarks: Depth (in emarks: DROLC etland Hy fimary Ind Surface High W Saturat Water I Sedime Surface Inunda Water- ield Obse	ches): So://s , Maizan Definition Defin	rine) priverine erine) Imagery (fficient)	the of Reduction Reduction (inches):	tes (B13) Dodor (C1) neres alon ced Iron (ction in Pla Remarks)	mg Living R C4) owed Soils	Hydric Soil F hydric Soil F hydric Soil F Surface Second	Ac-Neutral Test (D5)
Depth (in emarks: Depth (in emarks: DROLC etland Hy imary Ind Surface High W Saturat Sedime Surface Inunda Water- ield Obse	ches): Soffs Mozar Arroughan OGY Indrology Indicators: icators (any one indic water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonrive ent Deposits (B2) (No eposits (B3) (Nonrive e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) protations: ater Present? o Breagent?	rine) Imagery (Yes	ficient) ficient)	(inches):(inche	es (B13) Dodor (C1) neres alon ced Iron (ction in Pla Remarks)	mg Living R C4) owed Soils	Hydric Soil F hydric Soil F hydric Soil F Hydric Soil F Second Se	Ac-Neutral Test (D5)
Depth (in emarks: Depth (in emarks: DROLC etland Hy imary Ind Surface High W Saturat Saturat Sedime Surface Inunda Water- ield Obse vater Tabl aturation	ches):	rine) magery (Yes Yes	fficient) 	(inches): (inches): (inches):	45 Question (C1) heres alon ced Iron (ction in Pla Remarks)	ng Living R C4) owed Soils	Hydric Soil F Hydric Soil F Lashigh Lashigh Lashigh Lashigh Second Seco	Present? Yes No grandworker; present? grandworker; present? grandworker; present? yes No grandworker; present? yes No grandworker; present? yes No yes No yes No
Depth (in emarks: Depth (in emarks: Depth (in emarks: Depth (in emarks: Depth (in emarks: Comparison etailstick Comparison Compon Comparison Compon Compar	ches):	rine) rine) prriverine rine) Imagery (Yes Yes n gauge, I	ficient) ficient) ficient) ficient) Salt Crue Biotic Cr Aquatic I Hydroge Oxidized Presenc Recent I B7) Other (E No Depth of No Depth o	t (B11) ust (B12) Invertebrat in Sulfide (Rhizosph e of Reduc (ron Reduc (inches): (inches): (inches): (inches): (inches): (inches):	as of posts posts previous	ng Living R C4) owed Soils	Hydric Soil F A high Aurface Second 	Present? Yes <u>No</u> <u>www.lworter</u> ; <u>present?</u> Yes <u>No</u> <u>ater Marks (B1) (Riverine)</u> ater Marks (B1) (Riverine) ater Marks (B1) (Riverine) ater Marks (B1) (Riverine) atinage Patterns (B10) ry-Season Water Table (C2) nin Muck Surface (C7) rayfish Burrows (C8) aturation Visible on Aerial Imagery hallow Aquitard (D3) AC-Neutral Test (D5)
Depth (in emarks: Depth (in em	ches):	rine) rine) particerine particerine particerine rine) Imagery (Yes Yes Yes ringauge, I	ficient) ficient)	(inches):	45 0 45 0 405 T tes (B13) Ddor (C1) heres alon ced Iron (ction in Pla Remarks) previous 571	mg Living R C4) owed Soils	Hydric Soil F A high A high	Present? Yes <u>No</u> <u>ater Marks (B1) (Riverine)</u> ater Marks (B1) (Riverine) ater Mark
Depth (in marks: Depth (in marks: DROLC etland Hy imary Ind Surface High W Saturat Vater I Sedime Sedime Drift De Surface Inunda Water- ield Obse urface Wa /ater Tabl aturation ncludes c escribe R emarks:	ches):	rine) mine) mriverine erine) Imagery (Yes Yes n gauge, I maguy , L	ficient) 	(inches): (inches):	45 0 Josephyses tes (B13) Ddor (C1) heres alon ced Iron (ced Iron (ction in Ple Remarks) previous Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses Josephyses J	mg Living R C4) owed Soils inspection Soils	Hydric Soil F A high Aurface Second Second W Second Dr Dr Dr Dr Dr Cit S(C6) Si Si Si, if available: Si, if a vailable: Si, if a vailable: Cruct	Present? Yes <u>No</u> <u>present?</u> Yes <u>No</u> <u>present?</u> Yes <u>No</u> <u>present?</u> Yes <u>No</u> <u>ater Marks (B1) (Riverine)</u> ater Marks (B1) (Riverine) ater Marks (B1) (Riverine) at

Arid West - Version 11-1-2006

Project/Site: SH 92 Austin	City/County	: <u>Austin/Delta</u>	Sampling Date:2/2//08
Applicant/Owner: CDOT			State: <u>CO</u> Sampling Point: <u>6</u> -1 W
nvestigator(s): Andv Herb	Section, To	wnship, Range:	26, 145, 94W
andform (hillslope terrace etc.): Authors son	Local relief	f (concave, convex	, none): <u>Concence</u> Slope (%): 2
Subrogion (LBP): Interior Deserts	Lat: 38 48	8 Long	107 52 10 Datum: NAD 83
Sall Man Unit Nama: Apple S. Matmy it			NWI classification: <u>PEM</u>
Soli Map Unit Name	is time of year? Yes	No	(If no, explain in Remarks.)
Are Variation Soil or Hydrology	significantly disturbed?	Are "Norma	Circumstances" present? Yes No
Are vegetation, Soll, or Hydrology	naturally problematic?	(If needed.	explain any answers in Remarks.)
Are Vegetation, Soli, or Hydrology			no transporto important features etc.
SUMMARY OF FINDINGS – Attach site map	snowing samplin		ons, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes	No Is th	ne Sampled Area	
Hydric Soil Present? Yes	No with	nin a Wetland?	Yes No
Wetland Hydrology Present? Yes	No		
Remarks: PEM wellad associated	W/Lankerd	bulch I	hintan; contrains to
Conthe tide of sth 92	, ,		
VEGETATION			1
	Absolute Dominan	t Indicator Dom	ninance Test worksheet:
Tree Stratum (Use scientific names.)	% Cover Species	<u>Status</u> Num	ber of Dominant Species / (A)
1			
2		Tota Spe	l Number of Dominant / (B)
3			
Total Cov	er:	That	Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum		Pres	valence index worksheet:
1			Total % Cover of:Multiply by:
2		OBL	species x 1 =
3		FAC	W species x 2 =
5		FAC	species x 3 =
Total Cov	er:	FAC	CU species x 4 =
Herb Stratum	70	FAC	_ species X 5 = (A) (B)
1. Districhtis spienda		FACW	umn Totals: (A) (D)
2. Juning Sandicas		OBL	Prevalence Index = B/A =
Mullenbergia acourtolia	5	FACW Hy	rophytic Vegetation Indicators:
5 Phalant anundinacea	2	OBL V	Dominance Test is >50%
6. Linana Vulgans		<u>UPL</u>	Prevalence Index is ≤3.0'
7.			Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation ¹ (Explain)
Total Co	ver: <u>77</u> 47/,	18 -	
Voody Vine Stratum		¹ Inc	licators of hydric soil and wetland hydrology must
2		be	present.
Z Total Co	ver:	Hyd	drophytic
% Poro Ground in Herb Stratum	ver of Biotic Crust	0 Pre	esent? Yes <u>V</u> No
		and had	terro , 10 m , 10 m la month
Remarks: PEM Wetland associated	manner o	which tribe	Very werdy permiter
Jen Small Hoodplain - weth	ady encompas	y Most of	it it
Vor June 11- 1	V .	1	

Sampling Point: 6-1 W Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) SOIL Redox Features Remarks Type¹ Loc² Texture Matrix Depth % Color (moist) % Color (moist) (inches) Clayer - Clay 70 2.5 10-6 20 10 7.544 90 ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 1 cm Muck (A9) (LRR C) Sandy Redox (S5) 2 cm Muck (A10) (LRR B) Histosol (A1) Stripped Matrix (S6) Reduced Vertic (F18) Histic Epipedon (A2) Loamy Mucky Mineral (F1) Red Parent Material (TF2) Black Histic (A3) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Hydrogen Sulfide (A4) Depleted Matrix (F3) _ Stratified Layers (A5) (LRR C) Redox Dark Surface (F6) 1 cm Muck (A9) (LRR D) Depleted Dark Surface (F7) Depleted Below Dark Surface (A11) _ Redox Depressions (F8) ³Indicators of hydrophytic vegetation and Thick Dark Surface (A12) Vernal Pools (F9) wetland hydrology must be present. Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Hydric Soil Present? Yes Type: Pit 6-10" (V) above /owest part of wetland; some oxidized thizos Depth (inches): Remarks: upper lager Secondary Indicators (2 or more required) HYDROLOGY Wetland Hydrology Indicators: __ Water Marks (B1) (Riverine) Primary Indicators (any one indicator is sufficient) Sediment Deposits (B2) (Riverine) Salt Crust (B11) ____ Drift Deposits (B3) (Riverine) Surface Water (A1) __ Biotic Crust (B12) Drainage Patterns (B10) ____ High Water Table (A2) ____ Aquatic Invertebrates (B13) Dry-Season Water Table (C2) ✓ Saturation (A3) ____ Hydrogen Sulfide Odor (C1) _ Oxidized Rhizospheres along Living Roots (C3) ___ Thin Muck Surface (C7) ____ Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine) ____ Crayfish Burrows (C8) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) ___ Drift Deposits (B3) (Nonriverine) Recent Iron Reduction in Plowed Soils (C6) ____ Shallow Aquitard (D3) Surface Soil Cracks (B6) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: Depth (inches): _ No Surface Water Present? V Depth (inches): No Wetland Hydrology Present? Yes Water Table Present? Depth (inches): Saturation Present? Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Vegetated "channel" in lowest part of wetland is Flor 2-4" deep; hydrology from Lawhend bulch tributary Iwater and Surface Flores Arid West - Version 11-1-2006

sight/Site: SH 92 Austin	Citv/County:	Austin/Delta	Sampling Date: 2/28/88
Nicent/Owner: CDOT		Ś	State: CO Sampling Point: 6-1W2
etigeter(e): Andy Herb	Section. Town	ship, Range:	26, 145, 94W
Home (filleland torrace atc.): 1) and ((in)	Local relief (co	oncave, convex	(none): Concarc Slope (%): 2
drorm (nilisiope, terrace, etc.).	Lat: 28 48 9		107 52-10 Datum: NA083
region (LRR):Interior Deserts	_ Lat	Long	NIM classification DEM
Map Unit Name:	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>	/	(If an explain in Remarks)
climatic / hydrologic conditions on the site typical for t	his time of year? Yes	NO	(if no, explain in Remarks.)
Vegetation, Soil, or Hydrology	_ significantly disturbed?	Are "Norma	
Vegetation, Soil, or Hydrology	_ naturally problematic?	(If needed,	explain any answers in Remarks.)
MMARY OF FINDINGS – Attach site ma	p showing sampling	point locati	ons, transects, important features, etc.
	No		
Idrophytic Vegetation Present?	No ls the S	Sampled Area	No.
etland Hydrology Present?	No within	a wetland?	
emarks: Wetter I arm at Lambe	I budets Teit.	ton -	- Cultained Le bizle atomsfall
perform any of carren	Il under any	ac lance	Laco included - years irrea
and surrace rows; some sm	en yan -	- Maye	seen mensua very my
to parminy on flood plain		<u> </u>	
GETATION	· · · · · · · · · · · · · · · · · · ·		Test workshoot
	Absolute Dominant In % Cover Species?	Status	abor of Dominant Species
ee Stratum (Use scientine names.)	<u></u>	That	t Are OBL, FACW, or FAC: (A)
			Number of Dominant
		Spe	dies Across All Strata:(B)
		Borr	opent of Dominant Species
Total Co	ver:	That	t Are OBL, FACW, or FAC:(A/B)
apling/Shrub Stratum		Droy	valence Index worksheet:
		[[[[[[[[[[[[[[[[[Total % Cover of: Multiply by:
		OBL	species x 1 =
		FAC	W species x 2 =
		FAC	C species x 3 =
Total Co		FAC	CU species x 4 =
erb Stratum	Vol	UPL	species x 5 =
Dizkehlis spicata	60 1	FAZ Coli	umn Totals: (A) (B)
Muhlenbergia aspertolia		FACI	\mathbf{D} , by the last \mathbf{D}/\mathbf{A} =
Unknown aster			Prevalence Index = B/A =
Iva axillaris		FACW Hyc	Deminance Test is 250%
Schoeneplectus Maritmus	<u> </u>	<u>OBL</u>	$\frac{1}{2}$
Cichonium intybus		urc -	Morphological Adaptations ¹ (Provide supporting
			data in Remarks or on a separate sheet)
	- <u>97</u> udl.		Problematic Hydrophytic Vegetation ¹ (Explain)
loody Vine Stratum	wer: 48/19		
roody vine orracein		¹ Inc	dicators of hydric soil and wetland hydrology must
	······ ······· ········ ········· ······	De	present.
Total Co	over:	Hyd	drophytic
(Deep Cround in Herb Stratum 3 % Cr	over of Biotic Crust D	Pre	esent? Yes <u>/</u> No
remarks: Lobe of wetland alsociate	I W/ Lawrend 6	Sulph Tr	hipany; Houdplain Mas
yenne inconder barne - dan w	lasket at us	dard a	ixed returnettand . conald uplan
Veve megane Typy	pour s of		
pockets have been included	contain More Cit	chon um +	Aster Than other welland an
V Come of Engineers	<u></u>		Arid West – Version 11-1-2006
AUDY COURS OF COURSES			

L					ndle af at	or corfirm	n tha ab	eanca a	f indicatore	······································	
file Desc	ription: (Describe to	o the depti	h needed to docu	ment the ir	ndicator	or contin	n me ab	sence 0	a niultaturs.)	1	
pth	Matrix		Redo	ox Features	Type ¹		· Text	ure		Remarks	
ches)	Color (moist)	<u></u>		/0			1/2	H.C. 11	- Citty	clay	
<u> </u>	2.512.5/1	100 -					<u></u>	<u>,</u> -			
2-14	2.544/2	40	2.545/6	20	<u> </u>	14	·				
	2.543/1	40						· .	11		
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				-							
				2				Channy	al M=Matrix		
e: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix.	-Location	C PL=PO	e Lining, i	Indi	cators f	or Problema	tic Hydric Soils	3
ric Soil I	Indicators: (Applica	able to all l	LRRS, unless othe		eu.)			1 cm M	uck (A9) (I RE	2 C)	
Histosol	(A1)		Sandy Rec	10X (S5)				2 cm M	uck (A10) (LR	(RB)	
Histic Ep	pipedon (A2)		Stripped N	latrix (56)				Reduce	d Vertic (F18))	
Black Hi	stic (A3)		Loamy Mu	cky Minera	(F1) (F2)			Red Pa	rent Material	, (TF2)	
Hydroge	n Sulfide (A4)		Loamy Ge	eyed Matrix (E3)	(Г2)			Other (Explain in Rer	marks)	
Stratified	Layers (A5) (LRR C	•)	<u>v</u> Depieted P Reday Dep	rk Surface /	(F6))	+	(•			
1 cm Mu	ICK (A9) (LKK D) d Rolow Dark Surfeer	Δ11\ ·	Depleted [Dark Surfac	ce (F7)						
Depleted	Below Dark Surface	= (ATT)	Bedox De	pressions (F8)						
Sondy N	Aucky Mineral (S1)		Vernal Po	ols (F9)	,		³ Ind	icators o	of hydrophytic	vegetation and	
Sandy (Sleved Matrix (S4)						\ \	vetland	hydrology mu	st be present.	
trictive	Laver (if present):										
I VINH	· · ·										
Depth (in marks:	ches): Dyidzed rh	i20 sqhe	ands in low	er lage	er ;	pit s	Hydr	ric Soil Fed	Present?) to surfa	(es N	0
Depth (in marks:	ches): DyidZed rh	720 gphe	in low	er lage	er ; ,	pit sa	Hydr	ric Soil Fed	Present? \ /b Surfa	/esN	0
Depth (in marks:	ches): Dxid Zed rh	720 sqhe	in low	er lage	er ; ,	pit s	Hydi	ric Soil Ted	Present?		0
Depth (in marks: DROLC	ches): Dyid Zed rh DGY Idrology Indicators:	720 sq he	in low	er lage	r ; ,	pit s	Hydi	ric Soil Jud	Present?	rs (2 or more rec	0
Depth (in marks: DROLC stland Hy mary Ind	ches): Dyid Zed rh OGY rdrology Indicators:	720 sq he	icient)	er lage	er : 1	pit s	Hydi	ric Soil f.d Secon	Present?	rs (2 or more rec	p
Depth (in marks: DROLC tland Hy mary Indi	ches): Dyid Zed rh DGY drology Indicators: icators (any one indic Water (A1)	izo sy he	icient)Salt Cru	er lags st (B11)	er ; 1	pit sa	Hydi	ric Soil fed Secon W S	Present?	rs (2 or more rec (B1) (Riverine) posits (B2) (River	o quired) ine)
Depth (in narks: DROLC tland Hy mary Indi Surface High W	ches): Wid Zed rh OGY rdrology Indicators: icators (any one indic Water (A1) ater Table (A2)	izo ghi	icient) Salt Cru Biotic Cru	er /aŋ4 st (B11) rust (B12)	•~ ; ₀	pit s	Hydr	ric Soil fed Secon W S D	Present?	rs (2 or more rec 31) (Riverine) posits (B2) (River B3) (Riverine)	p quired) ine)
Depth (in marks: DROLC tiland Hy mary Indi Surface High W	ches): Dyid Zed r 4 DGY rdrology Indicators: icators (any one indic Water (A1) later Table (A2) ion (A3)	izo gha	icient) Salt Cru Sidt Cru Biotic Cr Aquatic	er land st (B11) rust (B12) Invertebrate	es (B13)	pit s	Hydi	ric Soil f.d <u>Secon</u> W S D D	Present?	rs (2 or more rec 31) (Riverine) posits (B2) (River B3) (Riverine) rns (B10)	o
Depth (in narks: DROLC tland Hy mary Indi Surface High W Saturat Water I	ches): Dyid Zed r 4 DGY drology Indicators: icators (any one indic water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver	izo sy he	icient) Salt Cru Sidt Cru Biotic Cr Aquatic Hydroge	er land st (B11) rust (B12) Invertebrate en Sulfide C	es (B13) Ddor (C1)	pit s	Hydi	ric Soil f.d Secon W S D D D	Present?	rs (2 or more rec 31) (Riverine) osits (B2) (River B3) (Riverine) rns (B10) ater Table (C2)	o auired) ine)
Depth (in marks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime	ches): Dyid Zed r 4 DGY drology Indicators: icators (any one indic water (A1) later Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No	rine)	icient) Salt Cru Salt Cru Biotic Cr Aquatic Hydroge Oxidized	er lange st (B11) rust (B12) Invertebrate en Sulfide C d Rhizospho	es (B13) Odor (C1) eres alon	pit s	Hydr Cots (C3	ric Soil f.d <u>Secon</u> W S D D D D T	Present?	rs (2 or more rec (es N (iverine) (Riverine) posits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7)	o guired) ine)
Depth (in narks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De	ches):	rine) prine) erine)	icient) — Salt Cru — Biotic Cru — Aquatic — Hydroge — Oxidized — Presend	st (B11) rust (B12) Invertebrate en Sulfide C d Rhizospho se of Reduc	es (B13) Ddor (C1) eres alon xed Iron (C	g Living R	Hydr a ghe p 2-7	ric Soil f.d <u>Secon</u> W S D D D D D C T C	Present?	rs (2 or more rec (es	o quired) ine)
Depth (in narks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface	ches): Ches):	rine) erine)	icient) — Salt Cru — Biotic Cru — Aquatic — Hydroge — Oxidized — Presend — Recent	st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe e of Reduc Iron Reduc	es (B13) Ddor (C1) eres alon æd Iron (C tion in Plo	g Living R C4)	Hydr c. fre p 2-1 c. oots (C3 s (C6)	ric Soil f.d Secon W S D D D D C S S S S S S S S S S S S S	Present?	rs (2 or more rec (es	o guired) ine) agery (C
Depth (in narks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface	ches): Wid Zed r4 OGY rdrology Indicators: icators (any one indic water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver a Soil Cracks (B6) tion Visible on Aerial	rine) prine) prine) prine) prine) imagery (B	icient) Salt Cru Salt Cru Biotic Cr Aquatic Hydroge Oxidized Presend Recent B7) Other (E	er land st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe ce of Reduc Iron Reduc Explain in R	es (B13) Odor (C1) eres alon eres alon tion in Plo temarks)	g Living R C4) Swed Soils	Hydr c. dur r c. oots (C3 s (C6)	ric Soil f.d Secon W D D D D D S S S S	Present?	rs (2 or more rec (es Ni (Riverine) posits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7) ws (C8) ble on Aerial Im- ard (D3)	p quired) ine) agery (C
Depth (in narks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface Inunda Water-	ches): Wid Zed rh OGY Indrology Indicators: icators (any one indic Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9)	rine) erine) Imagery (E	icient) Salt Cru Biotic Cru Biotic Cru Aquatic Aquatic Aquatic Aquatic Presence Recent 87)Other (E	er land st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe e of Reduc Iron Reduc Explain in R	es (B13) Ddor (C1) eres alon xed Iron (C tion in Plo Remarks)	g Living R 24) Swed Soils	Hydr a dur 2 - coots (C3 s (C6)	ric Soil f.d Secon W S D D D D D C S S S S S	Present?	rs (2 or more rec (es N (i c c rs (2 or more rec (a) (Riverine) posits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7) ws (C8) ble on Aerial Im- ird (D3) est (D5)	o <u>auired)</u> ine)
Depth (in narks: DROLC tland Hy nary Indi Surface High W Saturat Water In Sedime Drift De Surface Inunda Water-	ches): Did Zed r 4 DGY rdrology Indicators: icators (any one indic water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver es Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) provations:	rine) prine) priverine) prine) Imagery (B	icient) — Salt Cru — Biotic Cr — Aquatic — Hydroge — Oxidized — Presend Recent 87) — Other (E	er land st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe ce of Reduc Iron Reduc Explain in R	es (B13) Ddor (C1) eres alon ced Iron (C tion in Plo temarks)	g Living R C4) Swed Soils	Hydr content (C3 s (C6)	ric Soil f.d Secon W S D D D D D S S S S S S	Present?	rs (2 or more rec rs (2 or more rec 31) (Riverine) osits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7) ws (C8) ble on Aerial Ima- ard (D3) est (D5)	o <u>auired)</u> ine)
Depth (in marks: DROLC tland Hy mary Indi Surface High W Saturat Sedime Drift De Surface Inunda Water- Inunda	ches): Dyid Zed r 4 DGY drology Indicators: icators (any one indic Water (A1) later Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver es Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) revations: toor Bresent?	rine) prine) priverine) erine) Imagery (B	icient) — Salt Cru — Salt Cru — Biotic Cr — Aquatic — Hydroge — Oxidized — Presend — Recent 87) — Other (E	er /anj4 st (B11) rust (B12) Invertebrate en Sulfide C d Rhizospho ce of Reduct Iron Reduct Explain in R (inches):	es (B13) Ddor (C1) eres alon ced Iron (C tion in Plo temarks)	g Living R C4) Swed Soils	Hydr content (C3 s (C6)	Second	Present?	rs (2 or more rec (es N (Riverine) posits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7) ws (C8) ble on Aerial Ima- ird (D3) est (D5)	o quired) ine) agery (C
Depth (in marks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface Inunda Water- Inunda	ches): Diff ZedA DGY drology Indicators: icators (any one indic a Water (A1) a ter Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) irvations: ater Present?	rine) erine) erine) Imagery (E	icient) — Salt Cru — Salt Cru — Biotic Cr — Aquatic — Hydroge — Oxidized — Presend — Recent 87) — Other (E	er lange st (B11) rust (B12) Invertebrate en Sulfide C d Rhizospho e of Reduc Iron Reduc Explain in R (inches): (inches):	es (B13) Odor (C1) eres alon eres alon eres alon tion in Plo tion in Plo temarks)	g Living R C4) Swed Soils	Hydr c. free re- coots (C3 s (C6)	ric Soil f.d Secon W S D D D D T C S S F F	Present?	rs (2 or more rec rs (2 or more rec 1) (Riverine) osits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7) ws (C8) ble on Aerial Ima rd (D3) est (D5)	o quired) ine) agery (C
Depth (in marks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface Unift De Surface Inunda Water- eld Obse	ches): Diff Zec(/ 4 Diff Z	rine) erine) Imagery (E Yes	icient) 	er lange st (B11) rust (B12) Invertebrate en Sulfide C d Rhizospho e of Reduc Iron Reduc Explain in R (inches): (inches): (inches):	es (B13) Odor (C1) eres alon eres alon tion in Plo temarks)	g Living R C4) Swed Soils	Hydr c. free pro- c. oots (C3 s (C6) retland H	ric Soil f. d Secon W S D D D D C S S S F V V V V V V V V V V V V V	Present?	Yes Normalized in the second se	o guired) ine) agery (C
Depth (in marks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface Unift De Surface Unift De Surface Unift De Surface Inunda Water- eld Obse Inface Wa ater Tabl	ches): Wid Zed / / / Water Zed / / / OGY rdrology Indicators: icators (any one indicators) water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) prvations: ater Present? Present? Present? abiliary (fringe)	rine) rine) rine) rine) rine) imagery (B Yes Yes	icient) 	er /aŋ4 st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe e of Reduc Iron Reduc Explain in R (inches): (inches):	es (B13) Odor (C1) eres alon ced Iron (C tion in Plo tion in Plo temarks)	g Living R C4) Sowed Soils	Hydr Goots (C3 s (C6)	ric Soil f. d Secon W D D D D D D S S S S S S	Present?	Yes Normalized in the second se	o <u>quired)</u> ine) agery (C
Depth (in marks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface Inunda Water- eld Obse rface Wa ater Tabl turation cludes c ascribe R	ches):	rine) rine) priverine) priverine) imagery (E Yes Yes Yes n gauge, m	icient) — Salt Cru — Biotic Cr — Biotic Cr — Aquatic — Hydroge — Oxidized — Presend — Recent 37) — Other (E No _ Depth No _ Depth No _ Depth No _ Depth No _ Depth	er /aŋ4 st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe e of Reduc Iron Reduc Explain in R (inches): (inches): (inches): (inches): (inches):	es (B13) Ddor (C1) eres alon ced Iron (C tion in Plo cemarks)	g Living R C4) wwed Soils	Hydr a fur 2 coots (C3 s (C6) etland H s), if avai	ric Soil f. d Secon W S D D D D D S S F ydrolog	Present?	Yes Normalized in the second state of th	o <u>auired)</u> ine) agery (C
Depth (in marks: DROLC etland Hy mary Indi Surface High W Saturat Vater I Sedime Drift De Surface Inunda Water- eld Obse ater Tabl aturation Includes c escribe R	ches): Dyid ZedA DGY drology Indicators: icators (any one indic a Water (A1) later Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) prvations: ater Present? Present? Present? Apillary fringe) lecorded Data (stream	rine) partor is suffi rine) partiverine) partine) Imagery (B Yes Yes Yes n gauge, m	icient) — Salt Cru — Biotic Cr — Biotic Cr — Aquatic — Hydroge — Oxidized — Presend — Recent 87) — Other (E No / Depth No _ Depth No _ Depth No _ Depth No _ Depth	er /aŋ4 st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe ce of Reduc Iron Reduc Explain in R (inches): (inches): (inches): (inches): (inches):	es (B13) Ddor (C1) eres alon ced Iron (C tion in Plo temarks)	g Living R C4) bwed Soils	Hydr a fur 2 coots (C3 s (C6) etland H s), if avai	ric Soil f. d Secon W S D D D D D S 	Present?	res <u>Ves</u> <u>N</u> rs (2 or more rec 31) (Riverine) posits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7) ws (C8) ble on Aerial Ima- ird (D3) est (D5) Yes <u>Ves</u>	o <u>auired)</u> ine) agery (C
Depth (in marks: DROLC stland Hy mary Indi Surface High W Saturat Vater I Sedime Drift De Surface Inunda Water- eld Obse urface Wa ater Table ater Table ater Table	ches): Did Zed / 4 DGY drology Indicators: icators (any one indic a Water (A1) a ter Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) rvations: a ter Present? Present? Present? present? apillary fringe) recorded Data (stream	rine) prine) priverine) priverine) limagery (E Yes Yes res n gauge, m	icient) — Salt Cru — Biotic Cr — Aquatic — Hydroge — Oxidized — Presenc — Recent 87) — Other (E No _ Depth No _ Depth No _ Depth nonitoring well, aeri	er lange st (B11) rust (B12) Invertebrate en Sulfide C d Rhizospho ce of Reduc Iron Reduc Explain in R (inches):(inches):(inch	es (B13) Ddor (C1) eres alon ced Iron (C tion in Plo temarks)	g Living R C4) Swed Soils	Hydr c. free P c. fr	ric Soil f. d Secon W D D D D D D S	Present?	Yes No. Yes No. No. No. No. No. No. No. No.	o quired) ine) agery (C
Depth (in marks: DROLC tand Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface Unift De Surface Unift De Surface Inunda Water- Id Obse Inface Wa ater Tabl aturation Icludes c escribe R	ches): Wid Zed / 4 Water Call / 4 Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) wrations: ater Present? Present? Present? Present? Apillary fringe) recorded Data (stream	rine) prine) priverine) priverine) imagery (E Yes Yes Yes n gauge, m	icient) 	er lange st (B11) rust (B12) Invertebrate en Sulfide C d Rhizospho e of Reduc Iron Reduc Explain in R (inches): (inches): (inches): (inches): al photos, p	es (B13) Odor (C1) eres alon eres alon tion in Plo tion in Plo tio	g Living R C4) owed Soils	Hydr Gate Paral coots (C3 s (C6) etland H s), if avai	ric Soil field Secon W S D D D D D D D C S S S F ydrolog lable: Vi à	Present?	res <u>Ves</u> <u>rs (2 or more rec</u> (Riverine) posits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7) ws (C8) ble on Aerial Ima rd (D3) est (D5) Yes <u>Ves</u>	o quired) ine) agery (C No
Depth (in marks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface Inunda Water- eld Obse rface Wa ater Tabl turation cludes c escribe R	ches): Wid Zed / 4 OGY vdrology Indicators: icators (any one indic a Water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) vrations: ater Present? Present? Present? present? apillary fringe) recorded Data (stream Hydmlwg)	rine) rine) rine) rine) rine) imagery (E Yes Yes n gauge, m <i>provide</i>	icient) 	er lange st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe e of Reduc Iron Reduc Explain in R (inches):	es (B13) Dodor (C1) eres alony ced Iron (C tion in Plo tion in Plo tin Plo tion in Plo tio	g Living R C4) pwed Soils nspections wfary	Hydr Goots (C3 s (C6) etland H s), if avai	ric Soil field Secon W S D D D D D D D D D D D D D	Present?	res <u>Normalization</u> Normalization Normalizat	o quired) ine) agery (C
Depth (in marks: DROLC tland Hy mary Indi Surface High W Saturat Water I Surface Drift De Surface Surface Ununda Water- eld Obse rface Wa ater Tabl turation cludes c ascribe R	ches): Diff Zed / 4 Diff Zed / 4 D	rine) rator is suffi rine) onriverine) prine) Imagery (E Yes Yes n gauge, m provide Ver	icient) 	er /apa st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe e of Reduc Iron Reduc Explain in R (inches):	es (B13) Dodor (C1) eres alon ced Iron (C tion in Plo tion in Plo tin Plo tion in Plo tion	g Living R C4) owed Soils	Hydi a dur 2 d coots (C3 s (C6) etland H s), if avai	ric Soil field <u>Secon</u> W D D D D D D D D D D D S S S S S S S S S S S S S S S D S D S 	Present?	res <u>Nice</u> rs (2 or more rec Rs (2 or more rec Rs (2 or more rec Rs (2 or more rec Rs (B1) (Riverine) osits (B2) (River B3) (Riverine) rns (B10) ater Table (C2) face (C7) ws (C8) ble on Aerial Ima- rd (D3) est (D5) Yes <u>Yes</u> <i>Yes</i>	o quired) ine) agery (C No
Depth (in narks: DROLC tland Hy mary Indi Surface High W Saturat Water I Sedime Drift De Surface Inunda Water- eld Obse rface Wa ater Tabl turation cludes c escribe R	ches): DGY drology Indicators: icators (any one indicators) water (A1) ater Table (A2) ion (A3) Marks (B1) (Nonriver ent Deposits (B2) (No eposits (B3) (Nonriver e Soil Cracks (B6) tion Visible on Aerial Stained Leaves (B9) protations: ater Present? Present? Present? present? present? Apillary fringe) lecorded Data (stream Hydmlogy The grownow	rine) rine) rine) rine) rine) imagery (B Yes Yes Yes n gauge, m <i>provide</i> <i>Jer</i>	icient) 	er /ap4 st (B11) rust (B12) Invertebrate en Sulfide C d Rhizosphe e of Reduc Iron Reduc Explain in R (inches):(inches):	es (B13) Dodor (C1) eres alon xed Iron (C tion in Plo tion in Plo tin Plo tion in Plo tion	g Living R 24) wed Soils	Hydi a fur 2 coots (C3 s (C6) etland H s), if avai	ric Soil f. d Secon W S D D D D D D S S F ydrolog lable: V. A	Present?	res <u>Ves</u> <u>National States</u> <u>N</u>	o <u>auired)</u> ine) agery (C

Arid West - Version 11-1-2006

WETLAND DETE	KMINATION D		ATTU TEST NEGO	Sampling Date: 2	28/08
ject/Site: <u>SH 92 Austin</u>	City/Co	ounty: <u>Austin/E</u>		Sampling Point	6-1W3
licant/Owner: <u>CDOT</u>				a461	
estigator(s):Andy_Herb	Section	n, Township, Rang	ge:		(9/): 0
dform (hillslope, terrace, etc.):	Local	relief (concave, co	privex, none): $C = C = C$	2 // Deturn	NAD 8
region (LRR): <u>Interior Deserts</u>	Lat:X	48 8	Long	Datum:	NNO -
Map Unit Name: Aguiz Natrong,	ts		NWI classif	ication:	
climatic / hydrologic conditions on the site typical for th	is time of year? Ye	es No	(If no, explain in	Remarks.)	/
Vegetation, or Hydrology	significantly distur	oed? Are "N	Normal Circumstances'	present? Yes V	No
Vegetation, Soil, or Hydrology	naturally problema	tic? (If nee	eded, explain any answ	ers in Remarks.)	
MMARY OF FINDINGS – Attach site map	showing sam	pling point lo	cations, transect	s, important feat	ures, etc
ydrophytic Vegetation Present? Yes ydric Soil Present? Yes	No No	Is the Sampled within a Wetlan	Area d? Yes	✓ No	
etland Hydrology Present? Yes	No				
emarks: Small, 1020-14 ing pocket	t of PEN	y vetlad	associated	s-flandrees L	ed.
W. Gorand - Separate, or	<u> </u>				
GETATION	Absolute Dor	ninant Indicator	Dominance Test wo	orksheet:	
ee Stratum (Use scientific names.)	<u>% Cover</u> Spr	cies? Status	Number of Dominant	Species /	. (A)
<u>se onadani</u> (contra di seconda d		9 - 1.	That Are OBL, FACV	V, or FAC:	(A)
			Total Number of Dor	ninant /	(B)
			Species Across All S	itrata:	(D)
			Percent of Dominant	Species	ව (A/B
Total Cov	/er:		I nat Are OBL, FAC	V, 011AO:	
aping/shrub Gratam			Prevalence Index v	/orksheet:	by
			Total % Cover d	<u>y 1 =</u>	<u>by.</u>
				x 2 =	
			FAC species	x 3 =	
			FACU species	x 4 =	
orb Stratum	ver:	1	UPL species	x5=	
Datachi B spicata	60	V FAC	Column Totals:	(A)	(B)
Hordenon & whatem		- FAC	Drovelonce in	dev = B/A =	
Muhlenbergia asportolia		FACH	Hudrophytic Vege	tation Indicators:	
Brongus Gectorium		- UPC	Dominance Te	st is >50%	
Cirsium arvense		TAC 4	Prevalence Ind	lex is ≤3.0 ¹	
: Lactuca serviola	<u>V</u>	Mich	Morphological	Adaptations ¹ (Provide	supporting
·			data in Rem	arks or on a separate	sheet)
3	84	42/17	Problematic Hy	/drophytic Vegetation	(Explain)
Woody Vine Stratum	Wel		1		rology must
1.	· · · · · · · · · · · · · · · · · · ·		 Indicators of hydric be present. 	Soli and wetland hydr	ology muor
2		i			
Total Co	over:		Vegetation		
% Bare Ground in Herb Stratum % C	over of Biotic Crus	<u> </u>	Present?	Yes <u>v</u> No	
Remarks: 1. Il + 1 A Drug	hentland a	invited v	vII utral to	Tustam · Vo	bust
SMARI pocked of PEM	over and a)	younger 1	1 monton In		- 1
Distichlis; some Chysothama	145 Nay seosa	· · MUNYA	is any pe	rimque	
		- F			
				Arid Weet - Vere	ion 11-1-200
			i i i i i i i i i i i i i i i i i i i	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

									Sampl	ng Point:	W 3
iL -						oonfirm	the abse	nce of	indicators.)		
ofile Desc	ription: (Describe t	o the dept	h needed to docum	ient the	indicator of	Commi					
epth	Matrix	0/	Redox	Feature %	s Type ¹	Loc ²	Textur	e	F	emarks	
ches)	<u>Color (moist)</u>	<u></u>					day	ing	sitty	clay	
0-2	<u>2.5 y3/2</u>	100						+ -	11	"	
<u>2-16</u>	2.5 44/2	98	2.545/6	_2	<u> </u>	r=1			· · · · · · · · · · · · · · · · · · ·		
				;				<u></u> _		· · · · · · · · · · · · · · · · · · ·	
		·		<u> </u>							<u> </u>
<u> </u>		·						<u> </u>			
										<u></u>	
		·		2		Lining F			M=Matrix.		
ype: C=C	oncentration, D=Dep	letion, RM	=Reduced Matrix.	Locatio	ted)	: Lining, i	Indica	ators fo	r Problemat	c Hydric Soils ³ :	
/dric Soil	Indicators: (Applic	able to all	LRRS, unless oule	ov (85)			1	cm Mu	ck (A9) (LRR	C)	
_ Histoso	I (A1)		Sandy Red	ux (33) atrix (S6)			2	cm Mu	ck (A10) (LR	R B)	
_ Histic E	pipedon (A2)		Stripped W	ky Miner	al (F1)		F	educed	Vertic (F18)		
_ Black ⊢	listic (A3)		Loamy Gle	ved Matri	ix (F2)		- 🗌 F	Red Pare	ent Material (TF2)	
Hydrog	en Sulfide (A4)	^ \	Denieted M	latrix (F3))			Other (E	xplain in Ren	arks)	
_ Stratifie	d Layers (A5) (LRR	U)	Bedox Dat	k Surface	, e (F6)						
_ 1 cm M	luck (A9) (LRR D)	ο (Δ11)	Depleted D	ark Surfa	ace (F7)						
Deplete	ed Below Dark Sunat		Redox Dec	ressions	(F8)						
_ Thick L)ark Sufface (A12)		Vernal Poo	is (F9)	· ·		india	ators of	f hydrophytic	vegetation and	
Sandy	Cloved Matrix (S4)						W	etland h	ydrology mus	st be present.	
Sanuy	Laver (if present):									,	•
T	Layer (il procent).										
Type:	· · · · · · · · · · · · · · · · · · ·						Hydri	c Soil P	resent? Y	esNo	
					·						
YDROL	OGY		- -		-			Secon	tary Indicator	s (2 or more requ	ired)
Netland H	lydrology Indicators	3:						<u>000010</u>	otor Marks (F	1) (Riverine)	
Primary In	dicators (any one ind	<u>icator is su</u>	fficient)					0		oite (B2) (Riverin	
Surfac	e Water (A1)	. •	Salt Crus	st (B11)				Se	alment Depu	S(IS(B2)(INVEIII))	
	Nater Table (A2)		Biotic Cr	ust (B12))			Dr	iff Deposits (
√_Satura	ation (A3)		Aquatic	nvertebra	ates (B13)			Dr	ainage Patte	rns (D10)	
v Outure	Marks (B1) (Nonriv	erine)	Hydroge	n Sulfide	Odor (C1)			Dr	y-Season w		
Sedim	nent Deposits (B2) (N	lonriverine	e) Oxidized	l Rhizosp	heres along	I Living R	loots (C3)	Ir			
Drift [eposits (B3) (Nonriv	verine)	Presence	e of Red	uced Iron (C	:4)		· Ci	ayrish Burrov	vs (Co) No on Aorial Imar	nerv (CC
Surfa	ce Soil Cracks (B6)		Recent	ron Redu	uction in Plo	wed Soils	s (C6)	Si	aturation visi		
	ation Visible on Aeria	al Imagery ((B7) Other (E	xplain in	Remarks)			SI	nallow Aquita		
Water	r-Stained Leaves (B9)						F/	AC-Neutral I		
Field Obs	ervations:		/								
Field Obs	Vater Drocont?	Ves /	No V Depth	inches):							
Surface v	vater Present?	Van	No Depth	(inches):	12						
Water Tal	ble Present?		_ No Depth	(inches).	4	w	etland Hy	drolog	y Present?	Yes V N	o
Saturation	Present?	Yes <u>v</u>	_ No Depui	(inches).							
Describe	Recorded Data (strea	am gauge,	monitoring well, aeri	al photos	, previous i	nspection	is), if avail	able:			
						<u> </u>			1. 1.	1	1 de
Remarks	Ince water	1 at	12" after	- 15	Minut	es -	- 5m	ne	is high	n ground	
	71-4 - 100		1 1 5.9	1							
ALIS	riated w	1 Law	head Tribu	rong							
/>	- /			/							
_											
									Aria	West - Version	11-1-20
JS Armv (Corps of Engineers				•				Ario	West - Version	11-1-20

	City/Cou	ntu: Austin/Delta	Sampling Date: 2/28/08
oject/Site: <u>SH 92 Austin</u>		nty. <u>Austin/Deita</u>	tate: CO Sampling Point: 6-14
oplicant/Owner: <u>CDOT</u>	Continu	Township Bange:	2.6 145 94W
vestigator(s): <u>Andy Herb</u>	Section,	Township, Range.	$(name)$: $(a \in \mathcal{O} \times \mathcal{O} = Slope(\%); \mathcal{O}$
andform (hillslope, terrace, etc.):		lier (concave, convex	107 52 12 Datum: A(AD)
ubregion (LRR): <u>Interior Deserts</u>	Lat: <u>898</u>	Long	Datum Inciference
bil Map Unit Name:	245		
e climatic / hydrologic conditions on the site typical fo	or this time of year? Yes	No	(If no, explain in Remarks.)
re Vegetation, Soil, or Hydrology	significantly disturbe	d? Are "Norma	al Circumstances" present? Yes No
re Vegetation, Soil, or Hydrology	naturally problematic	? (If needed,	explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site m	ap showing samp	ling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Wetland Hydrology Present? Yes	∠ No Is _ No v _ No	s the Sampled Area vithin a Wetland?	Yes No
Remarks: Borderling Wetland area and other upland plants in	- no hydro dizate non	-wetlands.	- presence of UPL shrubs Hydroz soils bordenling.
EGETATION			
	Absolute Domin % Cover Specie	ant Indicator Don es? Status	ninance Test worksheet:
1 (Use scientific harnes.)	<u>_/0 00401</u> <u>_0pcon</u>	<u> </u>	t Are OBL, FACW, or FAC: (A)
2		Tot	Number of Dominant
3		Spe	cies Across All Strata: (B)
4.		Per	cent of Dominant Species
Total C	Cover:	Tha	t Are OBL, FACW, or FAC: (A/B)
Sapling/Shrub Stratum		Pre	valence Index worksheet:
1			Total % Cover of: Multiply by:
2		OB	species x 1 =
A		FAG	W species x 2 =
5		FA0	species x 3 =
Total (Cover:	FAC	CU species x 4 =
Herb Stratum	2 1	UP	species x 5 =
1. Distichtic spicate	<u>30</u>	- PAC Col	umn Totals: (A) (B)
2. Bromus rectoring	$-\frac{20}{15}$ V	$-\frac{upc}{upl}$	Prevalence index = B/A =
3. Attriplex canescents	<u> </u>	EAT W HV	drophytic Vegetation Indicators:
4. Juncus bacticus		- FACU	Dominance Test is >50%
5. Cacina service		FAC _	Prevalence index is ≤3.0 ¹
- The amenia hances		upl_	Morphological Adaptations ¹ (Provide supporting
· Circium annense	2	FACU	data in Remarks or on a separate sneet)
o. <u>City in the Total</u>	Cover: 97 48	119 -	
Woody Vine Stratum		1	liceters of hydric coil and wetland hydrology must
1		be	present.
2		Hv	dronhytic
% Bare Ground in Herb Stratum 3 %	Cover: Cover of Biotic Crust	Image: Second se	getation esent? Yes No
Remarks: Mohand road the dikty a	when plan we	Thad 6-1	· vegetatively diverse, bu
no wetland. Dispichlis	s not robus	t t is w	ell-mixed yoker upbend
Speciel.			
US Army Corps of Engineers			Arid West – Version 11-1-2006

6-14 Sampling Point: SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) **Redox Features** Depth Matrix Color (moist) % Type¹ Loc² Texture % Color (moist) (inches) Clo 2.5 10D 100 ,, 254516 ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 1 cm Muck (A9) (LRR C) Sandy Redox (S5) ____ Histosol (A1) 2 cm Muck (A10) (LRR B) Stripped Matrix (S6) Histic Epipedon (A2) _ Reduced Vertic (F18) Loamy Mucky Mineral (F1) Black Histic (A3) Red Parent Material (TF2) Loamy Gleyed Matrix (F2) ___ Hydrogen Sulfide (A4) Other (Explain in Remarks) ✓ Depleted Matrix (F3) _ Stratified Layers (A5) (LRR C) Redox Dark Surface (F6) _ 1 cm Muck (A9) (LRR D) Depleted Dark Surface (F7) _ Depleted Below Dark Surface (A11) Redox Depressions (F8) _ Thick Dark Surface (A12) ³Indicators of hydrophytic vegetation and Vernal Pools (F9) ____ Sandy Mucky Mineral (S1) wetland hydrology must be present. Sandy Gleyed Matrix (S4) Restrictive Layer (if present): Meets F3 Indicator, but barely. Some oxidized vhizos in Type: Depth (inches): Remarks: HYDROLOGY Secondary Indicators (2 or more required) Wetland Hydrology Indicators: Water Marks (B1) (Riverine) Primary Indicators (any one indicator is sufficient) Sediment Deposits (B2) (Riverine) Salt Crust (B11) Surface Water (A1) Drift Deposits (B3) (Riverine) ____ Biotic Crust (B12) High Water Table (A2) ___ Drainage Patterns (B10) ____ Aquatic Invertebrates (B13) ✓ Saturation (A3) _ Dry-Season Water Table (C2) ____ Hydrogen Sulfide Odor (C1) Water Marks (B1) (Nonriverine) ___ Oxidized Rhizospheres along Living Roots (C3) ___ Thin Muck Surface (C7) Sediment Deposits (B2) (Nonriverine) Crayfish Burrows (C8) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) ____ Saturation Visible on Aerial Imagery (C9) Recent Iron Reduction in Plowed Soils (C6) Surface Soil Cracks (B6) Shallow Aquitard (D3) Other (Explain in Remarks) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: L Depth (inches): Surface Water Present? No ____ Depth (inches): Water Table Present? Wetland Hydrology Present? Yes 6 Depth (inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Although site currently has hydrology - based on prysence of Atriplex (UIL) - Ericamenia (UPL), the site doesn't likely contain wethed hydrology for a duration to create wetherly. Oxidized vhitos do not appear to be associated wfliving worts Arid West - Version 11-1-2006 US Army Corps of Engineers

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roject/Site SH 92 Austin	City/County	y: <u>Austin/Delta</u>	Sampling Date: 2/27/08
pplicant/Owner: CDOT			State: <u>CO</u> Sampling Point: <u>8-1W</u>
avectigator(c): Andy Herb	Section, To	ownship, Range: _	36, 145, 94W
andform (hillolone terrace etc.): Terrace	Local relie	f (concave, convex	none): <u>None</u> Slope (%): <u>0</u>
andform (fillslope, terrace, etc.).	Lat: 38 47	7 52 Long	107 50 24 Datum: NAD 83
Subregion (LRR):	lan loan		NWI classification: PEM
Goil Map Unit Name:	the state of the s	No	(If no, explain in Remarks.)
re climatic / hydrologic conditions on the site typical	for this time of year? res_	Are "Norm:	Circumstances" present? Yes V
re Vegetation, Soil, or Hydrology	significantly disturbed?	(If pooded	evolain any answers in Remarks.)
re Vegetation, Soil, or Hydrology	naturally problematic?	(If fielded,	
SUMMARY OF FINDINGS – Attach site	map showing sampli	ng point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	/ Is 1	he Sampled Area	
Hydric Soil Present? Yes	/ No wit	hin a Wetland?	Yes No
Wetland Hydrology Present? Yes	No		
Remarks: Namen PEM Finher up	sorted by Solphi	wr bulch ;	Soils + Veg and somewhat
1 letie 1 tindated at	wether based	on Sett	my + hydrology
yorner line, but income is			1 1.1
VEGETATION			
	Absolute Dominar	nt Indicator Dor	ninance Test worksheet:
<u>Tree Stratum</u> (Use scientific names.)	<u>% Cover</u> <u>Species</u>	<u>? Status</u> Nur Tha	ber of Dominant Species t Are OBL, FACW, or FAC:2 (A)
2		Tot	Number of Dominant
3		Spe	cies Across All Strata:(B)
4.		Per	cent of Dominant Species
Tota	al Cover:	Tha	Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum	P	Pre	valence Index worksheet:
1			Total % Cover of: Multiply by:
2		ОВ	L species x 1 =
3		FA	W species x 2 =
5		FA	species x 3 =
J Tota	al Cover:	FA	CU species x 4 =
Herb Stratum	50 1	UP Far	L species x 5 = (2)
1. Dijkuliz Spicata	$\frac{30}{10}$	- FAC CO	umn Totals: (A) (B)
2. Hordenm usatum	<u>70</u>	FACH	Prevalence Index = B/A =
3. Bassia Gopania		- <u>// Hy</u>	drophytic Vegetation Indicators:
4		v	Dominance Test is >50%
5			Prevalence Index is ≤3.0 ¹
6			Morphological Adaptations ¹ (Provide supporting
/			data in Remarks or on a separate sneet)
o	al Cover: 62 2	1/4 -	
Woody Vine Stratum		11-	directors of hydric soil and wetland hydrology must
1		be	present.
2			dronhytic
Tot	al Cover:		getation
% Bare Ground in Herb Stratum	% Cover of Biotic Crust	<u>0</u> Pr	esent? Yes <u>V</u> No
Remarks: Aleman Arin Lorhe .	stor Cutobur ku	leh chan	el very veedy parameter
Varray Viero for	in the second	noter : C-	me land transity meather
W/Acroptilan; lots of AA	riplex on per, n	~~~, so	and the tandar & the add
Trace bot continuous	but some on	South side	of SHG2 also
Muge my con in			Arid West – Version 11-1-2006

SOIL		Sampling Point: 8-1W
Profile Description: (Describe to the de	pth needed to document the indicator or co	onfirm the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type ¹ Lo	<u>c² Texture Remarks</u>
0-16 2514/2 98	· · · · · · · · · · · · · · · · · · ·	<u>Clayey</u> <u>Clay</u>
- 2		Colcareous Material
	·	
¹ Type: C=Concentration, D=Depletion, RM	/-Reduced Matrix. ² Location: PL=Pore Lin	ing, RC=Root Channel, M=Matrix.
Hydric Soil Indicators: (Applicable to a	I LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Solls :
Histosol (A1)	Sandy Redox (S5)	1 cm Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped Matrix (S6)	2 cm Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mucky Mineral (F1)	Reduced Venic (F16)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Red Parent Material (172)
Stratified Layers (A5) (LRR C)	Depleted Matrix (F3)	
1 cm Muck (A9) (LRR D)	Redox Dark Surface (F6)	
Depleted Below Dark Surface (A11)	Depieted Dark Surface (F7)	
Thick Dark Surface (A12)	Vernal Pools (F9)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)		wetland hydrology must be present.
Salidy Gleyed Matrix (04)		
Turner		
		Hydric Soil Present? Yes V No
pryince of oper two in		
HYDROLOGY		Concerdent Indirators (2 or more required)
Wetland Hydrology Indicators:		Secondary Indicators (2 or Indie required)
Primary Indicators (any one indicator is su	(fficient)	Water Marks (B1) (Riverine)
✓ Surface Water (A1)	Salt Crust (B11)	Sediment Deposits (B2) (Riverine)
High Water Table (A2)	Biotic Crust (B12)	Drift Deposits (B3) (Riverine)
Saturation (A3)	Aquatic Invertebrates (B13)	Drainage Patterns (B10)
Water Marks (B1) (Nonriverine)	Hydrogen Sulfide Odor (C1)	Dry-Season Water Table (C2)
Sediment Deposits (B2) (Nonriverine	Oxidized Rhizospheres along Livir	ng Roots (¢3) Thin Muck Surface (C7)
Drift Deposits (B3) (Nonriverine)	Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iron Reduction in Plowed \$	Soils (C6) Saturation Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery	(B7) Other (Explain in Remarks)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)		FAC-Neutral Test (D5)
Field Observations:	1	
Surface Water Present? Yes	No Depth (inches):	
Water Table Present? Yes	No V Depth (inches):	
Octuration Drocont? Ves	No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)		
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	monitoring well, aerial photos, previous inspec	tions), if available: thougy : Howny for the whenter
Remarks: Small Sulphur Gra	monitoring well, aerial photos, previous inspec Ich channel provides hip 2 - silty clan bottom	tions), if available: thology; Howing somth whenter
Describe Recorded Data (stream gauge, Remarks: Small Sulphur Gu 1.5' wide + 6" Leep	monitoring well, aerial photos, previous inspec Ich channel provides hip o — silty clay bottom	tions), if available:

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Droioot/Cito: CH 02 Austin	City/County: Austir	h/Delta Sampling Date: 2/28/08
		State: CO Sampling Point: 8-14
	Section Township Ra	ange: 8/0 145 94W
Investigator(s): Anay Herb	_ decidin, rowiship, re	convex none): None Slope (%): O
Landform (hillslope, terrace, etc.):	20 17 52	Convex, none) Objection:
Subregion (LRR): Lat: Lat:	18 91 500	Long. 12 9 Datum
Soil Map Unit Name:	//	NVVI classification:
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes <u>V</u> No _	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are	"Normal Circumstances" present? Yes V_ No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If n	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	- Is the Sampled - within a Wetla	d Area and? Yes <u>No</u>
Remarks: Uppend terrace ~ 1'(V) above	Sulphur c	Sulch; dry + weedy
VEGETATION		
Absolut	e Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Use scientific names.)	·	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2		T () blander of Deminent
3		Species Across All Strata:
4		
Total Cover:		That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum		
1	:	Prevalence index worksneet:
2		
3		
4		$FAC species \\ x 3 =$
5		FACU species x 4 =
Herb Stratum		UPL species x 5 =
1. Bromus tectorum 40	UPL	- Column Totals: (A) (B)
2. Acroptilon repens 20	<u>upz</u>	
3. Bassia scopend 5	RACU	Prevalence Index = B/A =
4		Hydrophytic Vegetation indicators:
5		- Dominance Test is >50%
6		- Prevalence index is \$3.0
7	<u> </u>	data in Remarks or on a separate sheet)
8 Total Cover:	33/13	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum 1.		¹ Indicators of hydric soil and wetland hydrology must be present.
2	<u> </u>	- Hydrophytic
% Bare Ground in Herb Stratum % Cover of Biotic	c Crust	Vegetation Present? Yes No
Remarks: Upland terrace along Sulphur	Gulch - L	P w/in 1'(V) of channel
· · · · · · · · · · · · · · · · · · ·		Arid West – Version 11-1-2006

Sampling Point: 8-14 SOIL Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) **Redox Features** Matrix Depth Color (moist) % Type¹ Loc² Texture____ % Color (moist) (inches) clay dayen_ 98 _____ 2.504/2 2 ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix. Indicators for Problematic Hydric Soils³: Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) 1 cm Muck (A9) (LRR C) _ Sandy Redox (S5) Histosol (A1) 2 cm Muck (A10) (LRR B) ____ Histic Epipedon (A2) Stripped Matrix (S6) Reduced Vertic (F18) Loamy Mucky Mineral (F1) Black Histic (A3) Red Parent Material (TF2) _ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) ___ Stratified Layers (A5) (LRR C) Depleted Matrix (F3) Redox Dark Surface (F6) _ 1 cm Muck (A9) (LRR D) Depleted Dark Surface (F7) ___ Depleted Below Dark Surface (A11) ____ Thick Dark Surface (A12) Redox Depressions (F8) ³Indicators of hydrophytic vegetation and ____ Sandy Mucky Mineral (S1) Vernal Pools (F9) wetland hydrology must be present. Sandy Gleyed Matrix (S4) **Restrictive Layer (if present):** Type: Hydric Soil Present? Yes Depth (inches): Remarks: Redox features May not have formed due to high ptt, but regetation does not support that theory; some costile below 12" HYDROLOGY Secondary Indicators (2 or more required) Wetland Hydrology Indicators: ____ Water Marks (B1) (Riverine) Primary Indicators (any one indicator is sufficient) ____ Sediment Deposits (B2) (Riverine) Salt Crust (B11) Surface Water (A1) ____ Drift Deposits (B3) (Riverine) ____ Biotic Crust (B12) High Water Table (A2) Drainage Patterns (B10) ____ Aquatic Invertebrates (B13) ✓ Saturation (A3) ___ Dry-Season Water Table (C2) ____ Hydrogen Sulfide Odor (C1) ____ Water Marks (B1) (Nonriverine) ____ Oxidized Rhizospheres along Living Roots (¢3) ____ Thin Muck Surface (C7) ____ Sediment Deposits (B2) (Nonriverine) ___ Crayfish Burrows (C8) Presence of Reduced Iron (C4) Drift Deposits (B3) (Nonriverine) ____ Saturation Visible on Aerial Imagery (C9) ___ Recent Iron Reduction in Plowed Soils (C6) ____ Surface Soil Cracks (B6) ____ Shallow Aquitard (D3) ____ Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: Depth (inches): _ No Surface Water Present? No ____ Depth (inches): _____ Water Table Present? ____ Depth (inches): _____ Ø ____ Wetland Hydrology Present? Yes ____ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: arks: Saturnted to surface, but may be result of recent sociaring elt being held by heavy clay, Pit ~ 1'(V) above channel of Sulphur Remarks:

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Appendix D Wetland Mitigation Site Selection Form

Wetland Mitigation Site Selection Form Colorado Department of Transportation Attachment to Wetland Finding

Project Name	SH 92 Austin
Project Number	STA 092A-018
Sub-account Number	14934
Author Name	Andy Herb (AlpineEco)
CDOT Region or Firm	Region 3
Date Submitted	March 14, 2008

Mitigation Options Available	(1) Mitigation bank available? (yes/no)	Yes
	(2) Project impacts in 1°, 2° service area?	2°
	(3) HUC units	14020005 (Lower Gunnison)
	(4) On-site mitigation available? (yes/no)	Yes
	(5) Off-site mitigation available? (yes/no)	Yes
	(6) In-lieu fee arrangement available? (yes/no)	No
	(7) Mitigation ratio(s) used (mitigation : impact)	1:1

		Impact Site	Mitigation Site
Site Characteristics	(8) Geographic location	Between 13 354063.655N, 301486.881E (west end) and 13 359416.205N, 335150.424E (east end)	WetBank in Gunnison, Colorado; with some minor on-site willow planting at Currant Creek
	(9) Cowardin Classification, size of each type	PEM, 1.34 acres; 1.10 acres of "natural" wetlands and 0.24 acre of irrigation-related wetlands	100% PEM
	(10) Functions, values	Natural wetlands: high ratings for wildlife habitat, water storage, and sediment stabilization. Irrigation- related wetlands only have high ratings for sediment stabilization.	Primarily wildlife habitat
	(11) Size of impacts, % of total area	0.68 acre (29,677 sf)	NA
	(12) T&E species/habitat present?	No	No
Wildlife/Habitat	(13) Species? Status?	NA	NA
		Swallow nests observed on Currant Creek bridge; other potential nesting sites associated with woody vegetation in study area. Remove nests and nesting habitat only during non-nesting season (between September 15 and	If on-site mitigation work will involve clearing of woody vegetation or other nesting habitat, it should be done
	(14) Migratory Bird Treaty Act?	February 15).	during the non-nesting season.

		Impact Site	Mitigation Site
	(15) Other wildlife issues?	Potential for wintering bald eagles (observed roosting near MP 11); protected by Bald and Golden Eagle Protection Act. If birds are seen regularly during construction, contact US Fish and Wildlife Service for guidance.	Potential for wintering bald eagles (observed roosting near MP 11); protected by Bald and Golden Eagle Protection Act. If birds are seen regularly during construction, contact US Fish and Wildlife Service for guidance.
	(16) Status of aquatic resource?	No special status	No special status
	(17) Special aquatic site?	Yes; wetlands	Small wetlands are present at Currant Creek. Avoid and minimize impacts to these wetlands during on-site mitigation work.
		Lawhead Gulch floodplain wetlands	
	(18) Unique? Quality? Ranking?	perennial water source, and salt flats.	No
	(19) Watershed, ecosystem issues?	None known	Currant Creek likely receives some agricultural runoff
			· · ·
	(20) Likelihood of success?	NA	100% for mitigation bank; high success likely for willow plantings installed at Currant Creek if placed within 12 inches (vertical) of low-flow surface water elevation
	(21) Interagency agreement?	NA	No
Other	(22) Project logistics, size/scone?	NA	Minimal logistics since impacts will be officially mitigated at the bank; on-site work will be very small and will consist only of willow plantings.
	(23) Cost considerations?	NA	Costs of bank will be negotiated by CDOT personnel; costs for willow plantings are minimal
	(24) Buffer used?	No	No
	(25) Individual 404 permit condition?	No	No
Ś	(26) 404 (b)(1) Guidelines?	No	No
ssue	(27) NWP gen. reg. conditions?	No	No
Water I	(28) Regulatory letters?	No	RGL 02-2 No. If needed, on-site work should be covered under the SB 40 for the
	(29) S.B. 40?	Yes. Will need certification.	roadway improvements.
	(30) Water rights issues?	NA	No. No net gain in wetland area.
			·
	(31) Cumulative impact issues?	No	NA
NEPA Issues	(32) Agency policy, input?	No	NA
	(33) Public involvement?	No	NA

(34) Basis for Decision (Describe factors that are instrumental in the selection of the chosen mitigation decision.)

A wetland mitigation bank will be utilized for the official mitigation of permanent impacts since one is available in the region. Using the bank will reduce costs and minimize logistics issues. Some on-site willow plantings will be done at Currant Creek where there is adequate water and existing ROW.

(35) Decision

Use mitigation bank: WetBank in Gunnison, Colorado for all permanent impacts, except those at Currant Creek which will be compensated for on-site.

(36) Contingency Plans None.