APPENDIX F

WETLAND FINDING

DRAFT REPORT

US 550 From New Mexico State Line North to County Road 220 Wetland Finding Project NH5501-011 Subaccount 12979

Prepared for:
Colorado Department of Transportation

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URS

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The proposed project is to expand US 550 between the New Mexico State Line and County Road 220, including a new bridge over the Animas River in La Plata County, Colorado. The total length of the study corridor is approximately 15.4 miles. This Wetland Finding was prepared as part of environmental surveys to support an Environmental Assessment and permitting for the proposed highway reconstruction. A total of four alternatives for the project were examined during the EA process, including the No Action Alternative. Alternatives 1, 2, and 3 only differ between milepost 3.1 and milepost 6.6. The remaining segments of the build alternatives are the same. Alternative 2 was selected as the preferred alternative, because it is the least environmentally damaging. Due to budgetary considerations, construction details of the entire project and its ultimate completion will require a long-term approach divided into temporal sections; the initial construction is projected for the spring of 2005. This Finding reflects the best conceptualization of the project at this time.

The project area contains 70 wetlands covering 13.03 acres. Wetlands are found along the Animas River and tributaries of the Animas and Florida rivers, and in upland locations in roadside ditches, irrigation ditches, sewage lagoons, and ponds. Other waters include one perennial stream, several intermittent streams, and several isolated ponds and irrigation ditches.

The project would permanently impact 2.67 acres of wetlands and 0.28 acre of other waters, including 1.14 acres of jurisdictional wetlands. Based on this level of impact to jurisdictional waters of the United States, this alternative is likely to require an Individual Section 404 Permit prior to construction. Unavoidable permanent impacts will be mitigated through on-site and/or off-site wetland creation or restoration, in accordance with current CDOT, FHWA (23 CFR 777), and USACOE policies, and the conditions of the USACOE Section 404 Permit. Although the Clean Water Act only requires compensatory mitigation for those wetlands and other waters considered jurisdictional by USACOE, it is CDOT policy to mitigate all wetlands impacts (jurisdictional and non-jurisdictional) at a 1:1 ratio. Based on a functional assessment methodology, USACOE will determine the appropriate level of mitigation based upon the functions lost or adversely affected as a result of impacts to aquatic resources.

The following is a Draft Wetland Finding for the US 550 From New Mexico State Line North to County Road 220 Project (Project Number NH5501-011) and has been written in compliance with Executive Order 11990, "Protection of Wetlands," and is in accordance with 23 CFR 771, 23 CFR 777, and Technical Advisory T6640.8A.

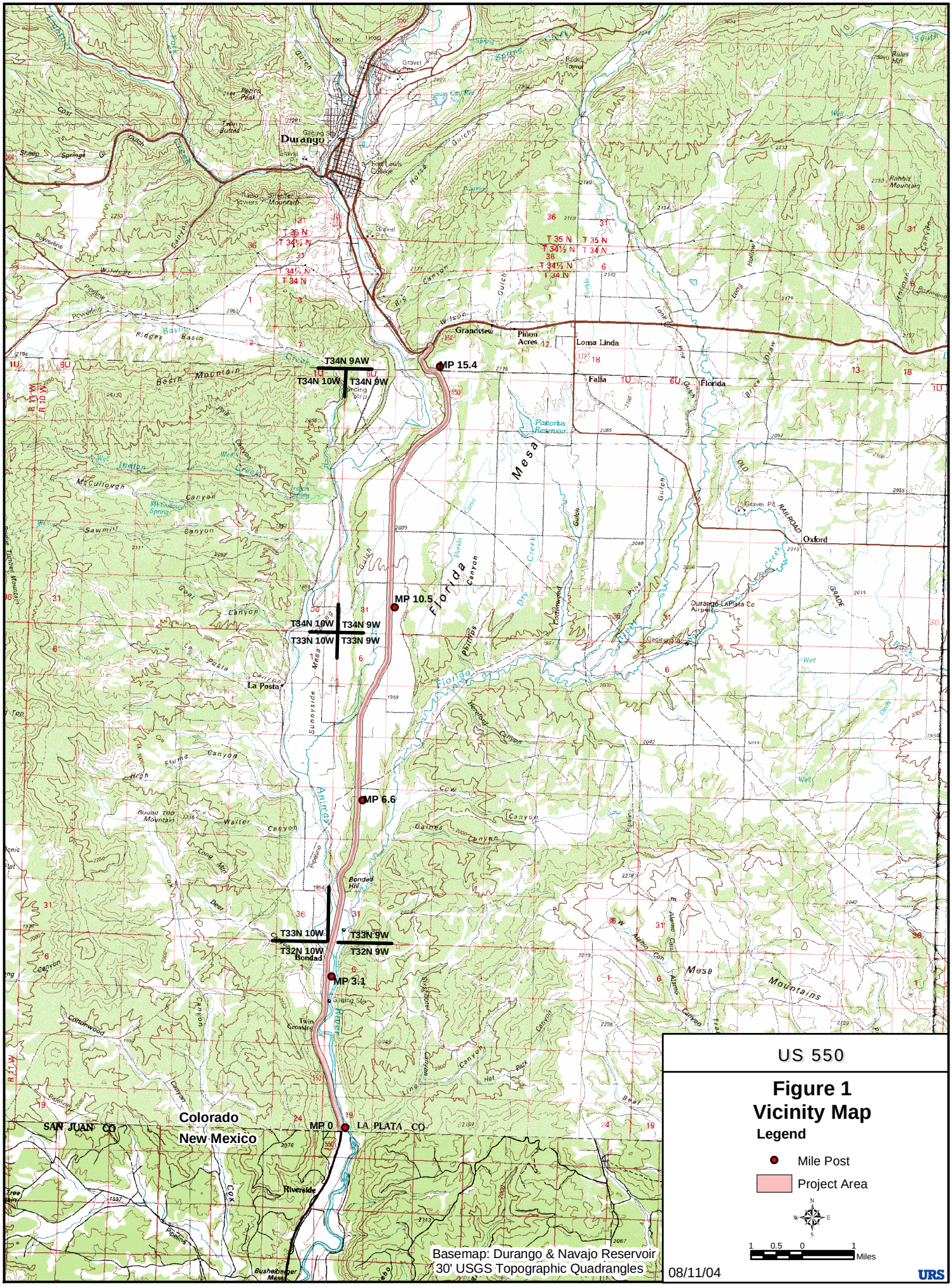
Wetlands are important biological resources that perform many functions including groundwater recharge, flood flow attenuation, erosion control, and water quality improvement. They also provide habitat for many plants and animals, including threatened and endangered species. The following sections describe each of the wetlands identified within the study area, how they would be impacted by the project, and how their impacts would be mitigated.

US 550 is a principal arterial on the National Highway System providing the major north-south link in the transport of goods and services between the Durango, Colorado and Farmington, New Mexico areas. The project area for the US 550 From New Mexico State Line North to County Road 220 is located between the New Mexico State line at milepost 0 and County Road (CR) 220 at milepost 15.4 in La Plata County, Colorado. The northern end of the project area (milepost 15.4) is located approximately 3.25 miles southeast of Durango, Colorado. The total length of the study corridor is approximately 15.4 miles as shown in Figure 1. About 9.5 miles are located on Florida Mesa, 1.5 miles on Bondad Hill, and 4.5 miles in the Animas River Valley.

The project is located on the Bondad Hill, Long Mountain, and Loma Linda United States Geological Survey (USGS) topographic quads, and is located within or on the edges of the following sections:

- Township 32N, Range 10W, Section 1, 12, 13
- Township 32N, Range 9W, Section 6, 7, 18, 19
- Township 33N, Range 9W, Sections 5, 6, 7, 18, 19, 31
- Township 34N, Range 9W, Sections 5U, 8U, 9U, 17, 19, 20, 29, 30, 31, 32

The elevation ranges from about 5960 at the New Mexico border to 6720 feet at the junction with CR220. It is located in the Colorado Plateau Semi-Desert Province Ecoregion (Bailey 1995), and in the pinyon-juniper/sagebrush vegetation zone. Most of the project area is native woodlands and shrublands, and rural residential with agriculture. The Animas River and Deer Creek cross the project area near the south end and provide relatively narrow bands of riparian vegetation that are used by various species of birds, small and large mammals, and other wildlife.



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3.1 PROJECT HISTORY

In February 1999, the *Final US 550 and US 160 Feasibility Study* (URSG 1999) was published after 2.5 years of performing technical studies and gathering public input. The *Feasibility Study* recommended that US 550 be widened to a four-lane highway from the New Mexico State Line to Durango. The *Feasibility Study* recommended that two highway corridors, the existing US 550 corridor and the Animas River Corridor (ARC), be evaluated further.

An agency scoping meeting was held June 14, 2001, to present the two US 550 highway corridors. There was concurrence among the agency representatives that only the least environmentally damaging practicable alternative (LEDPA) would receive agency support. The consensus among agency representatives in attendance was that the ARC could not be considered the LEDPA. As a result, the ARC was eliminated from further consideration, and the US 550 corridor was advanced for evaluation in accordance with the National Environmental Policy Act (NEPA).

3.2 PROPOSED ACTION

The proposed action would improve US 550 to a four-lane highway by extending the existing four-lane section that terminates approximately 1 mile north of the New Mexico/Colorado border north to the project terminus near CR 220.

3.3 PURPOSE OF THE PROJECT

The purpose of the project is to improve safety and increase highway capacity. This project is needed to address the existing substandard roadway design, which contributes to accidents, and to improve highway capacity and efficiency to meet the growing traffic demand. The objectives of the highway improvements include:

- Improve safety for the traveling public to reduce the number and severity of accidents;
- Increase travel capacity/efficiency to meet current and future needs;
- Provide a facility that meets current Colorado Department of Transportation (CDOT) design standards; and
- Reduce access deficiencies.

3.4 NEED FOR THE PROJECT

This action is intended to address both local and regional transportation needs that include safe and efficient travel to and from the urban centers of Durango, Colorado, and Farmington, NM, as well as the transport of goods and services across the western portion of Colorado. The need for the proposed action is evidenced by the history of accidents and the projected 2025 traffic volumes on US 550.

A detailed discussion of the project need is presented in Section 1.5 of the Draft Environmental Assessment (EA) (FHWA and CDOT 2004).

A total of four alternatives for the project were examined during the Environmental Assessment process, including the No Action Alternative. Alternatives 1, 2, and 3 only differ between milepost 3.1 and 6.6. The remaining segments of the build alternatives are the same. Alternative 2 was selected as the preferred alternative.

The segment from milepost 0 to 3.1 consists of a safety improvement that was completed in this section in 2001. Approximately 1 mile of the safety improvement (milepost 0 to 1) is a four-lane to two-lane transition north of the New Mexico State Line where US 550 extends south as a four-lane highway. The remainder of the project was comprised of a two-lane safety improvement. As part of that project, nearly all of the right-of-way (ROW) needed to complete the four-lane improvement was acquired. The land that has not been acquired is comprised of Southern Ute Indian Tribal Lands located both east and west of US 550. All of the build alternatives would widen the remainder of this section to four-lanes, with the proposed alignment generally following the existing median centerline. No work would be performed outside of existing ROW, except where new ROW is required and for new driveway connections. The design speed for this segment would be 70 miles per hour (mph) and a 46-foot depressed grass median would separate opposing travel lanes.

From milepost 3.1 to 6.6, Alternative 1 would generally follow the existing 2-lane highway alignment with moderate shifts to the east and slight shifts to the west to reduce impacts to the environment and existing development. This section includes intersections with CR 213 and CR 318. Alternative 1 proposes to realign the CR 213 and CR 318 intersections to improve the approach angle to 90 degrees. Alternative 1 ascends Bondad Hill at a 5 percent grade between milepost 4.3 and 5.3. The highway design transitions from a 70 mph design speed with a 46-foot depressed grass median north and south of Bondad Hill to a 45 mph design speed with a 14-foot median and a median barrier separating opposing lanes.

Alternative 2 (Preferred Alternative) also generally follows the existing 2-lane highway alignment and increases the highway width to 4-travel lanes between milepost 3.1 and 6.6, but shifts the alignment slightly to the east to flatten the horizontal curve at Bondad Hill. This shift would reduce the grade on Bondad Hill by 5 percent. The design speed for this segment would be 60 mph with a 14-foot median and a median barrier separating opposing travel lanes. Alternative 2 also proposes to realign the CR 213 and CR 318 intersections to improve the approach angle to 90 degrees.

Alternative 3 would also increase the highway width to 4-travel lanes between milepost 3.1 and 6.6. It would shift the alignment to the east side of Bondad Hill, up to 1,200 feet from the existing alignment, to provide a 4 percent grade and minimal horizontal curves. The design speed for this alternative would be 70 mph, and a 46-foot depressed grass median would separate the opposing travel lands. Alternative 3 would also realign the CR 213 and CR 318 intersections to improve the approach angle to 90 degrees.

From milepost 6.6 to 10.5, all action alternatives would generally follow the existing highway alignment with moderate shifts to the east and slight shifts to the west to reduce impacts to existing development and to flatten horizontal curves. This section includes CR 215, CR 218 and CR 217. The CR 215 intersection would have improved geometrics and would provide 0.5-mile spacing from the CR 218 intersection. The design speed for this segment would be 70 mph and a 46-foot depressed grass median would separate opposing travel lanes.

From milepost 10.5 to 15.4, all action alternatives would generally follow the existing highway with an easterly shift to preserve the existing west ROW line. This section includes intersections CR 214, CR 219 and CR 302. The CR 219 intersections would be consolidated into a single access point located between the two existing intersections. The design speed for this segment is 70 mph and a 46-foot depressed grass median separates opposing travel lanes.

Alternative 2 has been identified as the preferred alternative. Thus, the discussion in this section includes a description of wetlands located only within the study area for Alternative 2.

5.1 METHODS

Wetlands were delineated by using the Routine Determination procedures described in the 1987 *Corps Wetlands Delineation Manual* (Environmental Laboratory 1987) that require positive evidence of wetland hydrology, hydrophytic vegetation, and hydric soils. Field studies were performed September 17-21, 2001 by URS wetland biologists Jeff Dawson and Andy Herb and November 10-12, 2003, by Jeff Dawson and Kim Cornelisse. The wetland study area included all areas within 300 feet of the centerline of the existing highway, plus an expanded study area at Bondad Hill to allow consideration of a range of alternative roadway configurations. Wetland boundaries were delineated using a combination of Global Positioning System (GPS) and aerial photo interpretation, and were mapped on one inch equals 100 feet (1:1,200 scale) digital aerial photographs. The GPS data and the digitized wetland boundaries were incorporated into an ArcView/Geographical Information System (GIS) computer database for analysis and display.

At the request of the U.S. Army Corps of Engineers (USACOE), a preliminary evaluation was made as to whether each wetland and water was under the jurisdiction of the USACOE for Section 404 permitting. Wetlands are identified as jurisdictional where they occurred adjacent to an interstate water of the U.S. (Animas River), or were located along tributaries of the Animas River. Wetlands are considered to be non-jurisdictional where they are isolated from other waters of the U.S., or appear to result primarily from irrigation or other artificial sources. Non-jurisdictional wetlands included irrigation ditches in upland areas, roadside ditches, stock ponds and irrigation ponds in upland areas, and sewage lagoons. This preliminary evaluation of jurisdictional status has not been confirmed by the USACOE, therefore, those wetlands determined to be outside USACOE jurisdiction are likely considered non-jurisdictional.

5.2 WETLANDS

Wetlands are those areas that are inundated or saturated with water at or near the surface of the soil for a sufficient duration during the growing season to develop characteristic soil and vegetation. Many wetlands are protected under the Section 404 of the Clean Water Act (CWA) as waters of the United States and "special aquatic sites," and are under the jurisdiction of USACOE for Section 404 permitting. Isolated and irrigation-induced wetlands may be non-jurisdictional areas that are not protected by Section 404.

Executive Order 11990 directs all federal agencies to avoid, if possible, adverse impacts to wetlands and to enhance the natural and beneficial values of wetlands. It is CDOT policy to avoid impacts to wetlands where possible, minimize impacts, and mitigate unavoidable impacts for all wetlands regardless of jurisdictional status.

For all action alternatives, a Section 404 Permit would be required for this project. USACOE is a cooperating agency in the EA and will use the EA for its Section 404(b)(1) Alternatives Analysis and to support preparation of the Section 404 Permit.

The distribution of wetlands in the project area is shown on Map 1 to Map 11 in Appendix C. Wetlands delineated within the project corridor totaled approximately 13.03 acres (Table 1). More detailed information about the wetlands is provided in Appendix A. The following

sections describe the wetlands by groups, generally from south to north through the study area. Groups are defined based on connections to drainages (where there is a connection) or by source of hydrology for other wetlands.

Table 1
Summary of Wetland Groups in the US 550 Project Area

Wetland Group	Number of Wetlands	Total Area (acres)	Map Number	Jurisdictional
State Line North Project Mitigation Wetlands	1	1.73	3	Yes
Deer Creek Wetlands	3	0.82	3	Yes
Animas River Wetlands	4	1.24	3, 4	Yes
Unnamed Tributary of Florida River	6	1.46	5, 6	Yes
Trumble Draw Wetlands	4	0.65	8, 9	Yes
Hillside Seeps	5	0.67	3, 5, 11	No, except W-4
Isolated Irrigation Ditches in Uplands	22	4.71	3-11	No
Sewage Lagoons	11	0.13	5-11	No
Other Isolated Ponds	9	1.35	7, 9, 10, 11	No
Roadside Ditches	5	0.27	6, 9, 10, 11	No
Total	**70**	**13.03**	NA	NA

Wetland locations are shown on Maps 1-11.

5.2.1 State Line North Project Mitigation Wetlands

Several wetlands were created in 2000 as part of the CDOT US 550 State Line North Project, under USACOE Permit Number 199975031. The original mitigation plan included the creation of 1.65 acres of wetland to mitigate the loss of 1.34 acres of jurisdictional wetland and 0.31 acre of non-jurisdictional wetland. A total of 1.85 acres of wetland was created during construction, including 1.43 acres at site CC, 0.04 acre at site FF, and 0.38 acre at site HH (URS 2002c). The wetland delineation of this area was conducted in November 2003 and the only wetland delineated was at site CC (Wetland 72) (Map 3). Wetlands were not found at the other two sites.

Wetland 72 is a PEM wetland that consists of a constructed basin on the east side of US 550 and adjacent seepage and overflow areas. Water is provided by return flows from the Citizens Animas Ditch through an inlet in the northwestern corner of the wetland. The current area of this wetland within the highway ROW is 1.73 acres; however, additional wetlands extend east of the ROW fence. Seepage and overflows from this wetland are captured by the Two Rock Ditch, which parallels the Animas River down-gradient from the wetland. The Two Rock Ditch crosses the state line, and therefore, the wetland is considered jurisdictional by the USACOE (Cara Hellige, personal communication, December 17, 2003). The majority of the dominant plant species have an indicator status of obligate (OBL), facultative-wet (FACW), or facultative (FAC) (Reed 1988). Dominant wetland species observed include creeping spikerush (*Eleocharis palustris*), broadleaf cattail (*Typha latifolia*), Torrey rush (*Juncus torreyi*), pondweed (*Potamogeton* spp.), sandbar willow (*Salix exigua*), and Baltic rush (*Juncus balticus*). Most of the constructed wetland is occupied by a dense stand of broadleaf cattail. Pondweed occurs in small open water areas. The other species primarily occur in mixed stands on and below the eastern embankment of the wetland, watered by seepage and overflows.

Hydrologic indicators in the constructed portion of the wetland included inundation (most of the area), saturation, and sediment deposits. Hydrologic indicators in the seepage wetland include drainage patterns, limited areas of inundation, and saturation within the upper 12 inches.

Paired soils pits (wetland and upland) were examined on the western side of Wetland 72, and an additional wetland soil pit was examined on the eastern side. Wetland soils exhibited low chroma in the constructed wetland and mottles on the embankment.

5.2.2 Deer Creek Wetlands

Deer Creek is a perennial tributary of the Animas River. Three wetlands occur along Deer Creek, including a wetland adjacent to the channel (Wetland 62), and seep-fed meadows that connect to Deer Creek (Wetlands 61 and 63) (Map 3). These wetlands are considered jurisdictional because they are adjacent to and connected to Deer Creek, a named tributary of the Animas River. They are classified as palustrine emergent and riverine intermittent streambed (Cowardin et al. 1979).

The majority of the dominant plant species in each wetland has an indicator status of OBL, FACW, or FAC. Dominant wetland species observed includes creeping spikerush, broadleaf cattail, jointed rush (*Juncus articulatus*), and Baltic rush. Adjacent areas are heavily grazed upland grassland and sparsely vegetated areas dominated by weedy species such as musk thistle (*Carduus nutans*), tansymustard (*Descurainia* spp.), common burdock (*Arctium minus*), common mallow (*Malva neglecta*), and amaranth (*Amaranthus* spp.).

All of the wetlands exhibited inundation and saturation in the upper 12 inches. The main channel of Deer Creek was included in the mapped area of Wetland 62 and consists of a fast-moving stream 6 to 8 feet wide. The source of hydrology for Wetlands 61 and 63 is seeps. The ultimate source of the seepage is likely to be the Citizens Animas Ditch, which is upgradient about 0.25 mile to the west. The flow in Deer Creek may also be discharge from the same ditch.

A soil pit was examined in Wetland 61 and hydric soil indicators included sulfidic odor, gleyed or low chroma colors, and aquic moisture regime. Soils are mapped as Ustic Torriorthents-Ustic Haplargids, 12 to 60 percent slopes (SCS, 1982). These soils occur on terrace edges and hillsides.

5.2.3 Animas River Wetlands

Four wetlands occur on the floodplain of the Animas River, near the US 550 bridge (Wetlands 57, 58, and 59 [Maps 3 and 4]), and near milepost 3 (Wetland 66) (Map 3). These wetlands are considered jurisdictional because they are adjacent to and connected to the Animas River. These wetlands are classified as palustrine emergent, palustrine scrub/shrub, and palustrine aquatic bed (Cowardin et al. 1979). They include wetlands on the floodplain of the Animas River, as well as adjacent seepage areas on terraces adjoining the floodplain. These wetlands are all large and diverse in composition and structure.

The majority of the dominant plant species in each wetland has an indicator status of OBL, FACW, or FAC. Dominant wetland vegetation in these wetlands includes broadleaf cattail, redtop (*Agrostis stolonifera*), woolly sedge (*Carex lanuginosa*), creeping spikerush, and sandbar willow. The upland perimeter of the wetlands is dominated by species such as cottonwoods *(Populus angustifolia* and *P. deltoides*), box elder (*Acer negundo*), chokecherry (*Prunus*

virginiana), alder (*Alnus incana*), wild licorice (*Glycyrrhiza lepidot*a), juniper (*Juniperus scopulorum*), and big sagebrush (*Artemisia tridentata*).

The primary hydrological indicators observed in all four wetlands were inundation and saturation in the upper 12 inches. All of the wetlands have seeps that contribute to wetland hydrology, and two of the wetlands (58 and 59) also receive irrigation return flows.

Paired soil pits in wetland and adjacent upland areas were examined at wetland 59 in 2003. Wetland soils in Pit 59-A exhibited low chroma and mottles (Appendix A, Table A-2). Soil pits were not examined in other wetlands because the wetlands were dominated by OBL and FACW vegetation. Soils are mapped as Ustic Torriorthents-Ustic Haplargids, 12 to 60 percent slopes, and Tefton loam (SCS 1982). Ustic Torriorthents-Ustic Haplargids are on terrace edges and hillsides. Tefton loam is a deep, somewhat poorly drained soil of floodplains and alluvial valley floors.

5.2.4 Unnamed Tributary to Florida River Wetlands

Six wetlands (Wetland 47, 48, 49, 50, 51, 53) appear to be connected via surface flow to the Florida River and all are palustrine emergent bed (Cowardin et al. 1979) (Maps 5 and 6). They appear to represent a route for irrigation return flows. Wetland 47 is a wet swale at the upper end of this wetland group. Wetlands 48 and 49 have the appearance of irrigation ditches, and Wetlands 50 and 51 are overflow or seepage areas from leaks and holes in Wetland 49. Wetland 53, on the lower end, is also an irrigation ditch and is a continuation of Wetland 49 on the east side of US 550. Wetland 51 connects to an unnamed tributary of the Florida River on the aerial photograph, and therefore, the entire group of wetlands appears to be connected to the Florida River. In addition, the USGS topographic map shows most of these wetlands as part of the unnamed tributary. This group of wetlands is therefore considered jurisdictional.

The majority of the dominant plant species in each wetland has an indicator status of OBL, FACW, or FAC. These wetlands are dominated by creeping spikerush, Baltic rush, reed canary-grass (*Phalaris arundinacea*), and broadleaf cattail. Wetlands 47, 48, 50, and 51 are located within agricultural land (hay meadows and pastures), and Wetlands 49 and 50 are in sagebrush scrub and pinyon-juniper woodland.

The primary hydrological indicators observed were inundation, saturation in the upper 12 inches, and drainage patterns. The landowner for Wetland 51 said that Wetlands 50 and 51 were the result of gophers making holes in the canal (wetland 49) on Southern Ute Indian Tribe land on the west side of the road. However, Wetlands 50 and 51 are located in a natural drainage system, and the leaks from wetland 49 have persisted long enough to kill junipers in some areas. Surface water was observed at all of the wetlands except Wetland 47.

One soil pit was examined in Wetland 47 (Appendix A, Table A-2). The soil exhibited low chroma and numerous small mottles. No soil pits were examined in the other wetlands because they had obvious hydrology, and are dominated by OBL and FACW vegetation. Soils are mapped as Falfa clay loam, 3 to 8 percent slopes, a deep, well-drained soil of mesa tops (SCS 1982).

5.2.5 Trumble Draw Wetlands

Four wetlands occur along the Trumble Draw drainage. Three of the wetlands (Wetlands 27, 28, and 29; Maps 8 and 9) are ditch-like in appearance, and Wetland 30, located downstream, is a wet swale. These wetlands are considered jurisdictional because they are connected to Trumble Draw, a named tributary of the Animas River. They are classified as palustrine emergent and palustrine scrub/shrub (Cowardin et al. 1979).

The majority of the dominant plant species in each wetland has an indicator status of OBL, FACW, or FAC. Dominant plant species in these wetlands include retop, sandbar willow, broadleaf cattail, reed canary-grass, and small-fruit bulrush (*Scirpus microcarpus*). Surrounding vegetation consists of (Medicago sativa) alfalfa and grass hay fields for Wetlands 27, 28, and 29, and pastures dominated by Kentucky bluegrass (*Poa pratensis*) and timothy (*Phleum pratense*) for Wetland 30.

The primary hydrology indicators are inundation and saturation in the upper 12 inches. Wetlands 27, 28, and 29 have defined channels, and the wetlands are confined to a fringe on one side of the ditch. Wetland 30 is fed by an irrigation ditch but has no defined channel within it.

No soil pits were examined because the wetlands were dominated by OBL and FACW species. Soils are mapped as Falfa clay loam, 3 to 8 percent slopes (SCS 1982). This is a deep, well-drained soil of mesa tops.

5.2.6 Wetlands Associated with Hillside Seeps

This group includes five wetlands; four of them occur on the steep west slope of Florida Mesa (Wetlands 4 and 5; [Map 11]) and Wetlands 54 and 56 [Map 5]), and a similar seepage wetland (Wetland 65) is shown on Map 3. Wetland 4 is the only one of this group that appears to be jurisdictional and is located on a mapped USGS intermittent drainage that connects to the Animas River at the base of the slope. Wetland 4 also includes an area of open water. Wetland 56 has strong flow from a spring, but is apparently captured for irrigation on Sunnyside Mesa, which lies between the base of the slope and the Animas River. This wetland is therefore considered non-jurisdictional. Wetlands 5, 54, and 65 are isolated and are not on mapped drainages; therefore, they are considered non-jurisdictional. Wetlands 5, 54, 56, and 65 are classified as palustrine emergent, and Wetland 4 is classified as palustrine emergent, palustrine scrub/shrub, and palustrine aquatic bed (Cowardin et al. 1979).

The majority of the dominant plant species in each wetland has an indicator status of OBL, FACW, or FAC. Dominant vegetation in these wetlands includes redtop, sandbar willow, broadleaf cattail, caraway (*Carum carvi*), and triangular-valve dock (*Rumex triangulivalvis*). Four of the wetlands (Wetlands 4, 5, 54, and 56) are located within pinyon-juniper woodlands, and the fifth, Wetland 65, is in a pasture at the base of a slope below an irrigated agricultural field. Vegetation adjacent to the wetlands includes pinyon (*Pinus edulis*), juniper *(Juniperus osteospermum*), Gamble oak (*Quercus gambelii*), narrowleaf cottonwood (W-4 only), aster (*Aster* spp.), Canada thistle (*Cirsium arvense*), cocklebur (*Xanthium strumarium*), Siberian elm (*Ulmus pumila*), skunkbush sumac (*Rhus trilobata*), and rubber rabbitbrush (*Chrysothamnus nauseosus*).

The primary hydrological indicators observed in all five wetlands were inundation and saturation in the upper 12 inches. One of the wetlands (56) included a spring with a strong flow. Wetlands

5, 54, and 65 were seepage areas, and wetland 4 includes open water behind a small dam that was mapped separately (Map 11). The source of water for groundwater discharge appears to be irrigation on Florida Mesa.

No soil pits were examined because all of the wetlands were dominated by OBL and FACW vegetation. Several soils are mapped at these locations. Wetland 4 is mapped as Falfa clay loam, 3-8 percent slopes. Wetland 5 is on the interface of mapped Falfa clay loam, 3 to 8 percent slopes, and badland. Wetlands 54 and 56 are mapped on the interface of Ustic Torriorthents-Ustollic Haplargids, 12 to 60 percent slopes, and Witt loam, 3 to 8 percent slopes. Wetland 66 is mapped as Ustic Torriorthents-Ustollic Haplargids, 12 to 60 percent slopes (SCS 1982).

5.2.7 Isolated Irrigation Ditch Wetlands in Uplands

Nineteen fringe wetlands (Wetland 9, 14, 17, 18, 21, 32, 33, 37, 38, 39, 42, 43, 44, 45, 60, 64, 68, 69 and 70) along irrigation ditches occur in upland portions of the study area. All of them are considered non-jurisdictional because they are both isolated and irrigation-induced. The only one of these ditches/canals named on the USGS topographic map is Coop Ditch (Wetlands 7, 10, and 15 [Map11]). Fringe wetlands occur on both sides of the ditch channels and are 0.5 to 5 feet wide on each side. Wetland 43 is not a ditch, but was a pocket of wetland at a leaky irrigation pipe in an upland grassland.

The majority of the dominant plant species in each wetland have an indicator status of OBL, FACW, or FAC. Dominant plant species in these wetlands include redtop, creeping spikerush, Baltic rush, reed canary-grass, timothy, and sandbar willow. A few peachleaf willow (*Salix amygdaloides*), Siberian elm, and Russian olive (*Elaeagnus angustifolia*) individuals occur along the banks of some irrigation ditches. The irrigation ditches are located within agricultural pastures and meadows, and along roadsides. Adjacent non-wetland vegetation included goldenrod (*Solidago* spp.), wild lettuce (*Lactuca serriola*), smooth brome (*Bromus inermis*), common sunflower (*Helianthus annuus*), showy milkweed (*Asclepias speciosa*), curlycup gumweed *(Grindelia speciosa*), field horsetail (*Equisetum arvense*), Kentucky bluegrass (*Poa pratensis*), Canada thistle (*Cirsium arvense*), common mullein (*Verbascum thapsus*), chicory (*Chicorium intybus*), yellow sweetclover (*Melilotus officinalis*), red clover (*Trifolium pratense*), plantain (*Plantago* spp.), aster (*Aster* spp.), and asparagus (*Asparagus officinalis*).

The primary hydrological indicators observed were inundation, saturation in the upper 12 inches, drainage patterns, and drift lines.

Few soil pits were examined because all of the wetlands were dominated by OBL and FACW vegetation. Paired wetland and upland soil pits were located in wetland 68 (Appendix A, Table A-2). Soils in the wetland exhibited low chroma and mottles. Soils were mostly mapped as Falfa clay loam, 1 to 3 and 3 to 8 percent slopes, and Witt loam, 1 to 3 percent slopes. These are deep, well-drained soils of mesa tops and uplands.

5.2.8 Wetlands Associated with Sewage Lagoons

Small household sewage lagoons occur at several locations throughout the project area (11 total wetlands: Wetland 1, 6, 8, 11, 20, 24, 31, 35, 40 and 55). All of these wetlands are isolated in uplands and are considered non-jurisdictional. They are generally 10 to 20 feet in diameter and occur within 100 to 300 feet of the residences that they serve. Several of the sewage lagoons could

not be examined up close because there was no permission for access. These wetlands are classified according to Cowardin et. al. (1979) as primarily palustrine emergent. About 50 percent or more of their surface usually is open water.

All of the dominant plant species in each wetland have an indicator status of OBL, FACW, or FAC. Dominant plant species in these wetlands are barnyard grass (*Echinochloa crusgalli*), creeping spikerush (*Eleocharis palustris*), broadleaf cattail (*Typha latifolia*), and lesser duckweed (*Lemna minor*). Two sewage lagoons (Wetlands 1 and 6) are located in pinyon-juniper woodlands, and all others were located in pastures or other grassland. Vegetation around the perimeter of the wetlands is generally weedy and includes yellow sweetclover, common sunflower, kochia (*Kochia scoparia*), wild lettuce, smooth brome, and Canada thistle.

The primary hydrological indicators observed in all of these wetlands were inundation and saturation in the upper 12 inches.

No soil pits were examined because all of the wetlands were dominated by OBL and FACW vegetation. Soils were mapped as Falfa clay loam, 1 to 3 and 3 to 8 percent slopes, and Witt loam, 3 to 8 percent slopes (SCS 1982). These are deep well-drained soils of mesa tops and uplands.

5.2.9 Wetlands in Other Isolated Ponds

Wetlands in ponds other than sewage lagoons occur at several places in the study area, in upland areas. They include Wetlands 3 (Map 11); 16 (Maps 9 and 10); 19, 23, and 25 (Map 9); 34 (Map 8); and 36, 41, and 67 (Map 7). All are considered non-jurisdictional because they are in uplands, with no apparent connection to jurisdictional drainages. All of these wetlands are primarily palustrine emergent. Wetlands 16, 25, 34, and 36 enclose relatively large areas of open water with aquatic bed vegetation that were mapped as other waters. Wetland 67 is on the edge of a pond, which is outside the study area boundary. The others were too small to map the wetland and open water separately.

The most common plant species throughout these wetlands are creeping spikerush, few-flowered spikerush (*Eleocharis quinqueflora*), willow-reed (*Polygonum lapathifolium*), and pondweed. These wetlands are generally located within pastures and hay meadows, except Wetland 3, which is in a pinyon-juniper woodland.

The primary hydrological indicators observed were inundation and saturation in the upper 12 inches. Wetland 3 was dry at the time of survey; its indicators were water marks and sediment deposits.

Soil pits were not examined at most of these wetlands because the vegetation was dominated by wetland (hydrophytic) vegetation. Paired soil pits (wetland and adjacent upland) were located at Wetland 67. The wetland pit was on the perimeter of the wetland because nearly all of the wetland was inundated at the time of the survey. The soil pit did not exhibit hydric characteristics, but it was assumed that hydric soils are present due to the pit being on the margin, and the evident hydrology and hydrophyic vegetation. All of these wetlands are on soils mapped as Falfa clay loam, 1 to 3 and 3 to 8 percent slopes (SCS 1982).

5.2.10 Wetlands in Roadside Ditches

Five roadside ditch wetlands occur in the study area, at widely scattered locations. These include Wetlands 2 (Map 11); 13 (Map 10); 22 (Map 9); 46 (Map 6); and 71 (Map 3). These wetlands are all isolated and considered non-jurisdictional. Wetland 2 is in a roadside depression that receives water from a natural swale and overland flow. There is no culvert under US 550. The other roadside ditch wetlands are also in low areas along roads. All roadside ditch wetlands are classified as palustrine emergent and/or palustrine scrub/shrub (Cowardin et al. 1979).

The majority of the dominant plant species in each wetlands has an indicator status of OBL, FACW, or FAC. Dominant vegetation in these wetlands includes creeping spikerush, sandbar willow, small-fruit bulrush, broadleaf cattail, fox-tail barley (*Hordeum jubatum*), and barnyard grass (*Echinochloa crusgalli*). Wetlands 2 and 22 are surrounded by a pasture next to a road, Wetland 13 is between two roads, and Wetland 46 is in a pasture next to a road. Wetland 71 is within the US 550 ROW and was recently constructed as part of the State line North Project. Vegetation on the edges of these wetlands is mainly smooth brome (*Bromus inermis*) and cheatgrass (*Bromus tectorum*).

The primary hydrological indicators observed were sediment deposits (Wetlands 2, 46, and 71), drainage patterns (Wetlands 2 and 22), and saturation in the top 12 inches (Wetlands 13 and 46).

A soil pit was examined in Wetland 71. Hydric characteristics were not observed, but hydric soils may not have had time to develop, because the area was recently constructed. A paired upland soil pit was also examined. Soil pits were not examined in the other wetlands because most of the vegetation was dominated by wetland species. Soils are mapped as Falfa clay loam, 1 to 3 percent and 3 to 8 percent (SCS 1982). These are deep, well-drained soils of mesa tops.

5.2.11 Other Waters

Other aquatic features are also regulated as waters of the United States under Section 404 of the CWA including intermittent and perennial streams. Other waters include five streams, six ponds, and several sewage lagoons and irrigation ditches. Descriptions of these areas are provided below. Streams are jurisdictional under Section 404 of the CWA, but the ponds, sewage lagoons, and irrigation ditches are isolated and therefore non-jurisdictional.

Animas River. About 700 linear feet of the Animas River are within the study area, where US 550 crosses it on a bridge just above its confluence with the Florida River (Map 3). The river is approximately 110 feet wide, and 1.8 acres of river channel are within the study area. The Animas River is one of the major rivers of southwestern Colorado and flows south to join the San Juan River in New Mexico.

Deer Creek. US 550 crosses Deer Creek on a bridge about 0.5 mile south of the Animas River crossing. Deer Creek was mapped as part of Wetland 61 because the fringe wetlands along the stream channel and on islands within the channel were larger than the open water part of the stream. Deer Creek had a fast-moving open water channel about 6 to 8 feet wide at the time of the survey. Deer Creek has a watershed area of about 3,000 acres and joins the Animas River about 700 feet east of the study area.

Intermittent stream O-8. Other water O-8 is an intermittent stream that originates in a roadside ditch near the top of Bondad Hill and flows more than 0.5 mile across the study area toward the Florida River. It has a watershed area of about 45 acres, and is assumed to reach the Florida

River, which is about 400 feet away from the lower end of the mapped stream. This drainage is not mapped on the Bondad Hill USGS topographic map. The bottom of the channel ranged from 4 to 8 feet wide, or an average of about 5 feet wide. It had a total area of about 0.4 acre within the study area.

Intermittent stream O-13. This intermittent drainage originates on forested hills west of the Animas River. It crosses the CDOT ROW for about 300 feet, of which 50 feet are covered by the US 550 bridge. The stream averages 30 to 40 feet wide within the highway ROW, but is much narrower above and below the ROW. The portions within the US 550 ROW were widened and armored as part of the State Line North Project. This drainage has a watershed of about 900 acres and connects to the Animas River about 500 feet downstream of the study area. It is mapped as an intermittent stream on the Long Mountain and Bondad Hill USGS topographic maps.

Intermittent stream O-14. This intermittent stream also originates on forested hills west of the Animas River. It crosses the US 550 ROW for about 250 feet, of which about 50 feet are under the bridge. The stream averages about 40 feet wide within the ROW, but is much narrower above and below the ROW. The portions within the US 550 ROW were widened and armored as part of the State Line North Project. This drainage has a watershed of about 250 acres and connects to the Animas River about 800 feet downstream of the study area. It is mapped as an intermittent stream on the Long Mountain and Bondad Hill USGS topographic maps.

Sewage lagoons. Other waters O-2, O-9, O-10 and O-12 are sewage lagoons similar to the sewage lagoons previously described, except that they contained only open water.

Other isolated ponds. Other waters 0-3, 0-4, 0-5, and 0-6 are ponds with open water. Each of these have a narrow wetland fringe around them that is described in the wetland section. Other waters O-7 and O-11 are ponds without wetland fringes. These six ponds are in upland areas and are isolated from other waters of the United States.

Irrigation ditches. Most of the larger ditches in the project area are delineated as wetlands, but three major irrigation ditches are considered as other waters because they did not meet the criteria for wetlands. The Citizens Animas Ditch and Twin Rock Ditch are large ditches mapped and named on the USGS topographic maps. Paxton Ditch is not shown on the Bondad Hill USGS topographic map and is difficult to see on aerial photographs because it traverses a wooded area on the northeast side of Bondad Hill. The numerous small field ditches in and adjacent to irrigated farmland are not considered to be waters of the United States, but are delineated as wetlands where they meet wetland criteria.

5.3 NON-WETLAND DATA POINTS

Six delineation data sheets were recorded at sites where a determination was made that the site was not a wetland. These include sites NW-1 and NW-2 on Map 9, NW-3 on Map 6, NW-4 on Map 7, NW-5 on Map 3 and NW-6 on Map 1.

NW-1 is a low area within a hay meadow/pasture, where the natural slope of the land is blocked by the highway embankment. It had a preponderance of hydrophytic vegetation, primarily creeping spikerush. A soil pit was dug, and the site did not exhibit evidence of wetland hydrology or hydric soils. The soil is mapped as Falfa clay loam, 1 to 3 percent slopes, a well-drained soil of mesa tops (SCS 1982).

NW-2 is located on the other side of the road from NW-1. It is located in a swale upstream from Trumble Draw, and is shown as a connected drainage on both the Loma Linda USGS topographic map and the aerial photographs. It is a small area that may be dammed by a dirt road and ponds water following heavy precipitation or ditch overflows. It also exhibited a preponderance of hydrophytic vegetation, primarily creeping spikerush. A soil pit was dug, and the site did not exhibit evidence of wetland hydrology or hydric soils. The soil is also mapped as Falfa clay loam, 1 to 3 percent slopes, a well-drained soil of mesa tops (SCS 1982).

NW-3 is in a swale associated with the unnamed tributary of the Florida River. The swale appears to represent the original route of this drainage (based on the Bondad Hill USGS topographic map), but any flows from upstream now pass through wetland 49, a ditch. It did not have a more than 50 percent hydrophytic vegetation, although several hydrophytic species were common, especially creeping spikerush. A soil pit was dug, and the site did not exhibit evidence of wetland hydrology or hydric soils. The soil is also mapped as Falfa clay loam, 3 to 8 percent slopes, a well-drained soil of mesa tops (SCS 1982).

NW-4 is in a roadside ditch along county road 216 near Sunnyside. It is dominated by dense tall reed canary grass, a hydrophytic species. A soil pit showed saturation at 4 inches, evidence of wetland hydrology. However, it lacked hydric soil characteristics in the soil pit. The soil is Falfa clay loam, 1 to 3 percent slopes (SCS 1982).

NW-5 is in a roadside depression along the west side of Country Road 213. It is dominated by hydrophytic vegetation including cattail, creeping spikerush, curly dock, and sandbar willow. A soil pit was dug. There was no saturation or inundation, although drainage patterns were present. Soils had no hydric characteristics.

NW-6 is in a roadside depression on the west side of US550, bordered by cottonwood woodland below the Twin Rock Ditch. The lowest portion of the depression, which has no outlet, is dominated by dense woolly sedge. A soil pit found no evidence of wetland hydrology or hydric soils. There are no channels or sediment deposits. This soil is mapped as Pescar fine sandy loam, a soil of floodplains, low terraces, and alluvial valley floors (SCS 1982).

5.4 WETLAND FUNCTIONS AND VALUES

A preliminary evaluation of wetland functions was completed, generally following the Montana Department of Transportation Wetland Field Evaluation Methods (Berglund, 1999). Functions were assessed as high, moderate, low, or not applicable (NA) using a semi-quantitative scoring method for the following 12 wetland functions:

- Habitat for Federally listed, or proposed threatened or endangered species
- Habitat for State listed special status species
- General wildlife habitat
- General fish/aquatic habitat
- Flood attenuation
- Short and long term water storage
- Sediment/nutrient/toxicant retention and removal

- Sediment/shoreline stabilization
- Production export/food chain support
- Groundwater discharge/recharge
- Uniqueness
- Recreation/education potential

The results of the preliminary analysis of wetland functions are provided in Appendix A, Table A-1. Results are summarized below.

Federal Threatened and Endangered Species Habitat. Wetlands within or adjacent to riparian woodland and with open water habitat are rated high for this function because of the suspected presence of wintering bald eagles (wetlands 57 and 58). Shrub wetlands that were considered suitable habitat for southwestern willow flycatcher during a presence/absence survey (Sugnet, 2003) are rated as moderate (wetland 7). Wetlands 57 and 58 also have suitable southwestern willow flycatcher habitat. No southwestern willow flycatchers were observed during the survey.

State Listed Special Status Species. Wetlands where northern leopard frog was suspected to occur and which had highly suitable habitat are rated as high (wetlands 4, 34, 57, and 58). Wetlands that had marginally suitable habitat for northern leopard frog are rated as moderate.

General Wildlife Habitat. Wetlands are rated for general wildlife habitat based on several factors, including evidence of wildlife use, structural diversity, duration of surface water, and level of disturbance within and adjacent to the wetland. Wetlands rated high for this function include 4, 54, 56, 57, and 58. These are hillside seeps within relatively undisturbed forest, or structurally diverse wetlands within riparian habitat. A number of wetlands are rated as moderate, including wetlands with a mix of emergent and scrub-shrub vegetation, or a mix of emergent and aquatic bed habitat.

General Fish/aquatic Habitat. Assessment of fish/aquatic habitat is based on several factors, including duration of surface water, presence of cover, shading, and impairment due to water quality or structures. Several ponds provide moderate quality habitat (4, 16, 34, 41, and 62). Most wetlands are rated as not applicable (NA).

Flood Attenuation. No wetlands are rated as moderate or high.

Short and Long Term Surface Water Storage. This function depends on relative storage capacity, duration of surface water, and other factors. No wetlands are rated as high. Several of the larger wetlands are rated as moderate, including 7, 25, 33, 36, 47, 50, and 58.

Sediment and Nutrient Retention. Assessment of this function is based on relative level of nutrients or sediments received by a wetland, evidence of flooding or ponding, and presence of an outlet. Wetlands that received low to moderate levels of sediments or nutrients are rated higher than those receiving larger amounts, because the larger amounts cause eutrophication or impairment of other functions. Most wetlands in the study area are adjacent to or within agricultural land, heavily used pasture, or highways, and therefore are assessed as moderate or low for this function. Wetlands 57 and 58 are rated as high.

Shoreline Stabilization. This function only applies for waters within the banks of streams or man-made drainages, or ponds subject to wave action. No wetlands are rated as moderate or high.

Production Export/Food Chain Support. This function considers size, structural diversity, presence of an outlet, and duration of surface water. Structurally diverse wetlands adjacent to the Animas River are rated high for this function (wetlands 57, 58). Many wetlands are rated as moderate.

Groundwater Discharge/Recharge. Wetlands with springs or seeps are rated high for this function (wetlands 4, 5, 54, 56, 57, 58, 59, 61, 63, 65, 66). These include wetlands along the Animas River and Deer Creek, and isolated hillside seeps. Wetlands with large amounts of surface water that may provide recharge are also rated as high (16, 25, 34, 36, and 72). All other wetlands are rated as low.

Uniqueness. Assessment of this function is based on presence of rare types, structural diversity, and level of disturbance. No wetlands are rated as high, but several wetlands are rated as moderate (wetlands 4, 54, 56, 57, 58, and 66).

Recreation/Education Potential. Assessment of this function is based on known or potential use, level of disturbance, and public/private ownership. None of the wetlands are on public land, except for a few within the CDOT ROW. All wetlands are considered low for this function.

6.1 AVOIDANCE AND MINIMIZATION

Impacts to wetlands have been considered during development of the alternatives. Wetlands have been avoided and impacts have been minimized primarily by keeping close to the existing road alignment and by minimization of the road footprint on the south side the Animas River crossing. Many of the impacts are unavoidable because of design constraints or needs. Avoidance and minimization of impacts will be ongoing during engineering design and will be coordinated with USACOE (See Section 7.1).

6.2 TEMPORARY IMPACTS

Temporary construction areas have not yet been identified, and therefore, temporary impacts were assessed by assuming that all wetlands within 10 feet of the construction footprint would be impacted. Temporary impacts during construction may result from operation of construction equipment within wetlands, from reconstruction and extension of existing culverts, and from installation of silt fencing adjacent to the ROW. Disturbed areas will be restored to their original contours, and no permanent long-term impacts to wetland size or functions are expected in these areas. Minor and mostly temporary impacts will occur following construction of the highway from routine maintenance activities, including winter sanding and maintenance of culverts and roadside ditches. The estimated area of temporary impacts would be 0.515 acre, including 0.178 acre of jurisdictional wetland and 0.337 acre of non-jurisdictional wetland.

6.3 PERMANENT IMPACTS

Permanent impacts to wetlands were assessed by overlaying the highway construction footprint and the mapped wetland areas. The construction footprints used in the analysis are based on conceptual design, and there could be some changes during final design. All wetlands within the construction footprint of the highway and the berm will be filled and permanently lost. Impacts of the proposed project are summarized in Tables 2 and 3.

Table 2
Summary of Proposed Project Permanent Wetland Impacts by Mileposts

Section	Jurisdictional Wetlands (acres)		Non-jurisdictional wetlands (acres)		Total Wetlands (acres)	
	Ft^2	Acres	Ft^2	Acres	Ft^2	Acres
MP 0.0 – 3.1	0	0.000	297	0.007	297	0.007
MP 3.1 – 6.6	22,656	0.521	1,856	0.043	24,512	0.564
MP 6.6 – 10.5	24,108	0.553	39,746	0.912	63,854	1.466
MP 10.5 – 15.4	3,033	0.070	24,793	0.569	27,826	0.639
Total	**49,797**	**1.144**	**66,692**	**1.531**	**116,489**	**2.676**

Table 3
Summary of Proposed Project Permanent Wetland Impacts by Wetland Group

Wetland Group	Preliminary Section 404 Jurisdictional Status	Mileposts				Total
		MP 0.0 – 3.1	MP 3.1 – 6.6	MP 6.6 – 10.5	MP 10.5 – 15.4	
Deer Creek wetlands	Jurisdictional		0.198			0.198
Animas River wetlands	Jurisdictional		0.323			0.323
Unnamed tributary of Florida River	Jurisdictional			0.554		0.554
Trumble Draw wetlands	Jurisdictional				0.070	0.070
Hillside seeps	Non-Jur.		0.005			0.005
Isolated irrigation ditches	Non-Jur.		0.034	0.886	0.476	1.396
Sewage lagoons	Non-Jur		0.004	0.017		0.021
Other isolated ponds	Non-Jur				0.027	0.027
Roadside ditches	Non-Jur	0.007		0.009	0.066	0.082
Total		**0.007**	**0.564**	**1.466**	**0.639**	**2.676**

The proposed project would permanently impact 2.676 acres of wetlands and 0.28 acre of other waters, including 1.14 acres of jurisdictional wetlands. Based on this level of impact to jurisdictional waters of the United States, this alternative is likely to require an Individual Section 404 Permit prior to construction. Impacts to the different components of the wetland environment are discussed below. Impacts to individual wetlands are summarized in Table 4.

Table 4
Proposed Project Permanent Wetland Impacts by Wetland

Wetland	Wetland Type	Jurisdictional wetlands		Non-jurisdictional wetlands		Total Wetlands (acres)	
		Ft^2	Acres	Ft^2	Acres	Ft^2	Acres
MP 0.0 – 3.1							
Wetland 71	Roadside ditch	0	0.00	297	0.007	297	0.007
Subtotal		**0**	**0.00**	**297**	**0.007**	**297**	**0.007**
MP 3.1 – 6.6							
Wetland 55	Sewage lagoon	0	0.000	169	0.004	169	0.004
Wetland 58	Animas River floodplain	4738	0.109	0	0.000	4,738	0.109
Wetland 59	Animas River floodplain	9317	0.214	0	0.000	9,317	0.214
Wetland 60	Isolated irrigation ditch	0	0.000	1,130	0.026	1,130	0.026
Wetland 61	Deer Creek	3,606	0.083	0	0.000	3,606	0.083
Wetland 62	Deer Creek	4,995	0.115	0	0.000	4,995	0.115
Wetland 64	Isolated irrigation ditch	0	0.000	213	0.005	213	0.005
Wetland 65	Hillside seep	0	0.000	211	0.005	211	0.005
Wetland 70	Isolated irrigation ditch	0	0.000	133	0.003	133	0.003
Subtotal		**22656**	**0.521**	**1,856**	**0.043**	**24512**	**0.564**

Table 4
Proposed Project Permanent Wetland Impacts by Wetland

Wetland	Wetland Type	Jurisdictional wetlands		Non-jurisdictional wetlands		Total Wetlands (acres)	
		Ft^2	Acres	Ft^2	Acres	Ft^2	Acres
MP 6.6 – 10.5							
Wetland 33	Isolated irrigation ditch	0	0.000	22,218	0.510	22,218	0.510
Wetland 38	Isolated irrigation ditch	0	0.000	11,983	0.275	11,983	0.275
Wetland 42	Isolated irrigation ditch	0	0.000	423	0.009	423	0.009
Wetland 44	Isolated irrigation ditch	0	0.000	3,301	0.076	3,301	0.076
Wetland 45	Isolated irrigation ditch	0	0.000	696	0.016	696	0.016
Wetland 46	Roadside ditch	0	0.000	400	0.009	400	0.009
Wetland 47	Unnamed tributary of Florida River	12,495	0.287	0	0.000	12495	0.287
Wetland 48	Unnamed tributary of Florida River	4,340	0.100	0	0.000	4,340	0.100
Wetland 50	Unnamed tributary of Florida River	1398	0.032	0	0.000	1,398	0.032
Wetland 51	Unnamed tributary of Florida River	5,009	0.115	0	0.000	5,009	0.115
Wetland 52	Sewage lagoon	0	0.000	725	0.017	725	0.017
Wetland 53	Unnamed tributary of Florida River	866	0.020	0	0.000	866	0.020
Subtotal		**24,108**	**0.553**	**39,746**	**0.912**	**63,854**	**1.466**
MP 10.5 – 15.4							
Wetland 2	Roadside ditch	0	0.000	2,320	0.053	2,320	0.053
Wetland 3	Other isolated pond	0	0.000	565	0.013	565	0.013
Wetland 7	Isolated irrigation ditch	0	0.000	13,515	0.310	13,515	0.310
Wetland 9	Isolated irrigation ditch	0	0.000	968	0.022	968	0.022
Wetland 10	Isolated irrigation ditch	0	0.000	3,842	0.088	3,842	0.088
Wetland 13	Roadside ditch	0	0.000	547	0.013	547	0.013
Wetland 14	Isolated irrigation ditch	0	0.000	631	0.014	631	0.014
Wetland 15	Isolated irrigation ditch	0	0.000	299	0.007	299	0.007
Wetland 16	Other isolated pond	0	0.000	600	0.014	600	0.014
Wetland 21	Isolated irrigation ditch	0	0.000	1,506	0.035	1,506	0.035
Wetland 27	Trumble Draw	3,033	0.070	0	0.000	3,033	0.070
Subtotal		**3,033**	**0.070**	**24,793**	**0.569**	**27,826**	**0.639**
Total		**49,797**	**1.144**	**66,692**	**1.531**	**116,489**	**2.676**

Milepost 0.0 – 3.1

There would be only minor impacts to wetlands from the US 550 project because wetland impact and mitigation has already taken place as part of the US 550 State Line North Project in 2000. Approximately 0.01 acre of non-jurisdictional wetlands would be permanently impacted. Wetland 71 (Table 3) is associated with a roadside ditch and would be filled during the construction of the roadway embankment. This wetland has no moderate- or high-rated functions.

Milepost 3.1 – 6.6

The proposed project would permanently impact 0.59 acre of wetlands and 0.03 acre of other waters between MPs 3.1 and 6.6, including 0.55 acre of jurisdictional wetlands. Most of the impacts would occur to wetlands associated with the Animas River and Deer Creek.

Animas River Wetlands. The proposed project would impact 0.32 acre of jurisdictional wetlands associated with the Animas River - Wetlands 58 and 59 (Table 3) on the south side of the bridge crossing. Impacts would primarily result from placement of fill associated with the roadway embankment. Wetland 58 on the west side of the highway is a highly diverse natural wetland with high functions for federal and state endangered or threatened species, general wildlife habitat, sediment and nutrient retention, and groundwater discharge; and moderate functions for surface water storage, production export, and uniqueness. Wetland 59 on the east side of the highway has high functions for groundwater discharge, and moderate functions for general wildlife habitat, sediment and nutrient retention, and production export.

Deer Creek Wetlands. Portions of Wetlands 61 and 62 (Table 3) would be filled as part of the roadway embankment construction and expansion of the box culvert. Permanent impacts to these wetlands associated with Deer Creek from the proposed project would account for a loss of 0.20 acre of jurisdictional wetlands. Wetland 61 has moderate functions for production export and high functions for groundwater discharge. Wetland 62 has moderate functions for general fish/aquatic habitat and production export.

Hillside Seeps. Less than 0.01 acre of non-jurisdictional hillside seep wetlands would be permanently impacted. Wetland 65 (Table 3) would be filled in this section of the roadway as result of the construction of the embankment. This wetland has high functions for groundwater discharge and moderate general wildlife habitat.

Isolated Irrigation Ditches in Uplands. The project would impact 0.03 acre of non-jurisdictional wetlands (Wetlands 60, 64, and 70) (Table 3) associated with isolated irrigation ditches in upland areas. These wetlands would be filled as part of the roadway embankment construction. These wetlands do not have any high- or moderate-rated wetland functions.

Sewage Lagoons. Less than 0.01 acre of non-jurisdictional wetlands associated with sewage lagoons (Wetland 55 - Table 3) would be permanently filled. This wetland is rated moderate for sediment and nutrient retention.

Other Waters. A relatively small portion (0.03 acre) of intermittent stream O-8 originating near the top of Bondad Hill would be filled as part of the roadway embankment construction. There would be no permanent impacts within the channel of the Animas River, because the piers would be placed outside the channel. The large piers of the old bridge within the channel would be removed.

Milepost 6.6 – 10.5

Improvements to this section would permanently impact 1.47 acres of wetlands, including 0.55 acre of jurisdictional wetlands. Most of the impacts would occur to wetlands associated with an unnamed tributary of Florida River and wetlands associated with irrigation ditches.

Unnamed Tributary to the Florida River. Permanent impacts to the Wetlands (47, 48, 50, 51, 53) associated with the unnamed tributary to the Florida River (jurisdictional) would account for loss of 0.55 acre of wetlands (Table 3). About 50 percent of the impacts would occur at Wetland

47. These wetlands would be filled as part of the roadway embankment construction. Wetland 50 is rated as moderate for general wildlife habitat, Wetlands 47 and 50 are rated as moderate for surface water storage, and Wetlands 47, 48, 50 and 51 are rated as moderate for sediment and nutrient retention.

Isolated Irrigation Ditches in Uplands. The roadway design would result in the fill of 0.89 acre of non-jurisdictional wetlands associated with isolated irrigation ditches in upland areas (Wetlands 33, 38, 42, 44, and 45 – Table 3). Wetland 33 is rated as moderate for general wildlife habitat, surface water storage, and production export. Other wetlands and wetland functions are rated as low or not applicable.

Sewage Lagoons. Approximately 0.02 acre of non-jurisdictional wetlands associated with a sewage lagoon (Wetland 52 – Table 3) would be permanently impacted in this roadway section. This wetland would be filled as part of the roadway embankment construction and is rated as moderate for sediment and nutrient retention.

Roadside Ditch. About 0.01 acre of Wetland 46 (Table 3) would be impacted by the project. No functions are rated as moderate or high.

Milepost 10.5 – 15.4

Improvements to MPs 10.5 through 15.4 would permanently impact 0.64 acre of wetlands, including 0.07 acre of jurisdictional wetlands. Most of the impacts would occur to wetlands associated with irrigation ditches.

Trumble Draw Wetlands. Roadway embankment construction would result in the permanent loss of portions of one jurisdictional wetland associated with Trumble Draw (Wetland 27 – Table 3). Impacts to wetlands would total 0.08 acre. All of the functions of this wetland is rated as low or not applicable.

Isolated Irrigation Ditches in Uplands. All alternatives would result in the fill of 0.48 acre of non-jurisdictional wetlands (Wetlands 7, 9, 10, 14, 15, 17, and 21*)* associated with isolated irrigation ditches in upland areas (Table 3). A number of wetlands had moderate rated functions:

- Federal threatened or endangered species – Wetlands 7 and 10
- General wildlife habitat – Wetlands 10 and 14
- Surface water storage – Wetland 7
- Production export – Wetlands 7, 9, 10, 15, and 21

Other Isolated Ponds. Approximately 0.03 acre of non-jurisdictional wetlands associated with isolated ponds (Wetlands 3 and 16) would be permanently impacted in this roadway section (Table 3). These wetlands would be filled as part of the roadway embankment construction. Wetland 3 is rated as moderate for sediment and nutrient retention, and Wetland 16 is rated as moderate for state special status species habitat, general wildlife habitat, general fish habitat, sediment and nutrient retention, and production export, and high for groundwater recharge.

Roadside Ditches. A total of 0.07 acre of roadside ditch wetlands would be filled as a result of improvements to this roadway section. Both Wetlands 2 and 13 are considered non-jurisdictional (Table 3). Wetland 2 is rated as moderate for general wildlife habitat and sediment and nutrient retention.

Other Waters. Road construction would impact 0.25 acre of other water 0-3, an isolated pond. This would eliminate most of the pond.

6.4 INDIRECT IMPACTS

Indirect impacts to wetlands include sedimentation, erosion, and noxious weed invasion. These impacts are not quantifiable and are briefly discussed below.

During construction, clearing of vegetation and other earth-moving activities will destabilize the soil surface and can lead to accelerated erosion of soils from the construction area, and deposition of sediment in downstream and adjoining areas. Long-term impacts to wetlands as a result of roadway sanding may occur. This non-point source of sediment can accumulate in areas adjacent to the roadway, covering the existing vegetation. Long-term impacts from erosion would typically be most pronounced along the roadway edge where there is increased flow frequency, volume, and velocity due to the increase in impermeable surface in the immediate area.

Although noxious weed invasions typically occur in areas of exposed soil with full or partial sun, some noxious weeds are known to invade well-vegetated areas. There are relatively few noxious weed species that regularly occur within wetland areas in Colorado and most of those that do occur are primarily on the margins of the wetlands or in areas of changing hydrology. Noxious weed species associated with wetlands and adjacent moist habitats include Canada thistle, teasel, cut-leaf teasel, purple loosestrife, perennial pepperweed, and leafy spurge. Additionally, areas of exposed soil in nearby non-wetlands could be invaded and could provide an additional seed source for an invasion in wetland areas.

7.1 WETLAND MITIGATION FOR TEMPORARY IMPACTS

Under Section 404 of the CWA, impacts to wetlands and other waters of the United States must be avoided, minimized, or mitigated, in order of preference. Some wetland impacts have been avoided or minimized during development of the project alternatives. Additional avoidance and minimization measures will be developed during the final design process for each highway segment, based on current (within 3 years) wetland delineation. Avoidance and minimization measures that will be considered during final design include slight shifts in the highway alignment and reducing the limits of construction by utilizing retaining walls or guardrails with increased side slopes. The avoidance and minimization measures evaluation will also include consideration of safety impacts, feasibility, and conformance to design criteria.

The following mitigation measures will be utilized during project construction to minimize adverse impacts to wetlands during construction:

- All mitigation efforts will be implemented throughout the project construction period, as appropriate.
- Precautions will be taken when working in areas with shallow groundwater or areas that frequently carry surface water flows to avoid inadvertent hydrologic modifications.
- Unnecessary temporary impacts will be avoided by fencing the limits of disturbance during construction.
- Best management practices (BMPs) will be used during all phases of construction to reduce impacts from sedimentation and erosion. BMPs will include using berms, brush barriers, check dams, erosion-control blankets, filter strips, sandbag barriers, sediment basins, silt fences, straw-bale barriers, surface roughening, and/or diversion channels.
- No equipment staging or storage of construction materials will occur within 50 feet of wetlands or other waters.
- The use of chemicals, such as soil stabilizers, dust inhibitors, and fertilizers, within 50 feet of wetlands and other waters will be prohibited.
- Equipment will be refueled in designated contained areas, at least 50 feet from wetlands and other waters.
- Where practicable, work will be performed during low flows or dry periods. If flowing water is present, it will be diverted around active construction areas.
- No discharge of effluent into wetlands or other waters will occur.
- Temporary fill material will not be stored within wetlands or other waters.
- All areas of exposed soil will be seeded and/or planted and mulched throughout construction (following the completion of each section). Mulch and mulch tackifier will be placed for temporary erosion control when seeding and/or planting cannot occur due to seasonal constraints. Upland seed mixes will not be used within wetlands.
- Any wetland areas used for construction access will be covered with a layer of geotextile and/or straw, and at least 2 feet of soil prior to use.

- All new bridges will be designed to not allow any direct discharge of stormwater runoff into wetlands or other waters.
- A project-specific noxious weed management plan will be developed and implemented during construction. The plan will include identification of noxious weeds in the area, weed management goals and objectives, and preventative and control measures for weeds.

7.2 WETLAND MITIGATION FOR PERMANENT IMPACTS

Unavoidable permanent impacts will be mitigated through on-site and/or off-site wetland creation or restoration, in accordance with CDOT, FHWA, and USACOE mitigation policies, and the conditions of the USACOE Section 404 Permit. Although the CWA only requires compensatory mitigation for those wetlands and other waters considered jurisdictional by USACOE, it is CDOT policy to mitigate all wetlands impacts (jurisdictional and non-jurisdictional) at a 1:1 ratio. Based on a functional assessment methodology, USACOE will determine the appropriate level of mitigation based upon the functions lost or adversely affected as a result of impacts to aquatic resources.

Per the USACOE Regulatory Guidance Letter No. 02-2 (December 24, 2002) USACOE is taking a watershed approach to the mitigation of impacts to waters of the United States. This philosophy suggests that USACOE is likely to request not only wetland creation, but also the use of vegetated upland buffers. The letter states that "applicants will be encouraged to provide compensatory mitigation projects that include a mix of habitats such as open water, wetlands, and adjacent uplands. When viewed from a watershed perspective, such projects often provide a greater variety of functions". There are currently no wetland mitigation banks that service the project area, and the following conceptual mitigation plan identifies on-site areas that appear to be suitable and practicable for wetland mitigation (See Appendix E-Wetland Mitigation Site Selection Form).

The overall goals of compensatory mitigation will be to replace the acreage of wetlands that will be permanently impacted by the project, to replace the wetland functions that will be lost, and to provide additional functions that the local ecosystem may have previously lost (or partially lost) due to impacts from other projects and activities in the area. In addition, mitigation will follow an ecosystem approach and include a mix of habitats and will be within the same watershed as the impacted wetlands. Mitigation for non-wetland other waters and for riparian habitat has also been incorporated into the wetland mitigation conceptual design.

Detailed wetland mitigation plans will be developed in accordance with USACOE Regulatory Guidance Letter 02-2 (USACOE 2002) and will include but are not limited to the following:

- Project description
- Baseline information
- Goals and objectives, including factors considered in site selection
- Mitigation work plan, including hydrology, earthwork, planting plan, fencing, erosion control and schedule
- Performance standards
- Responsible parties

- Site protection (legal means for protecting mitigation area)
- Contingency plan
- Monitoring and long-term management
- Financial assurances

The plan will describe all phases of wetland creation, including site layout, shallow groundwater monitoring well installation, construction details, and success monitoring. The site layout will include a detailed base map outlining the exact location of the site(s), the different planting zones, details on the sources of wetland hydrology, and techniques used to create a viable and functioning site. The construction details will provide a detailed seed and plant mix, including the sources and quantities of seed and plants to be used; details on construction methods, timing and sequence; and all other pertinent details regarding construction and planting. The success monitoring will include performance standards, the compensatory mitigation site requirements set forth by the USACOE, and details for the short- and long-term management of the site. The success of the site is typically based on compliance with the success criteria written into the Section 404 Permit.

One existing CDOT wetland mitigation area is located within the project area, the State Line North Mitigation Wetland near milepost 3. This site will be not be affected by project activity. It cannot be expanded within the current CDOT ROW because of topography (the wetland extends to the edge of the ROW).

Five new potential on-site wetland mitigation areas have been identified and are briefly discussed in the following paragraphs. One of them (Animas River Terrace – Figure 2) is relatively large and can be used to mitigate all of the project impacts, if necessary, and also provides a location for riparian habitat mitigation. The other four sites are smaller and address specific impacts. These areas will be investigated during the final design and permitting process of each highway segment. The construction schedule and final design will be included in the final wetland finding. All of the potential mitigation areas are in upland or primarily upland areas, and wetland mitigation will primarily consist of wetland creation. Final selection of sites and construction methods will depend on various factors such as the areas required, land availability, hydrology, engineering feasibility, wetland functions that can be achieved, and the surrounding habitats and relative importance in the ecological landscape. CDOT will identify and preserve large blocks of land for wetland mitigation as early as possible. Early identification, preservation, and construction of mitigation sites will facilitate management and monitoring, increase the probability of success, and enable better long-term protection. CDOT will obtain easements or other legal protection of the mitigation areas.

Potential Site #1: Animas River Terrace Mitigation Area. This site is located on a terrace immediately downstream from the Animas River Bridge, on private land between Wetland 59 and the river (Figure 2 and Map 3). The terrace averages about 400 feet wide and is about 1,800 feet long and 4 to 8 feet above the river. It is bordered by the river on the east and by an upland slope on the west.

The mitigation area is currently part of a operating farm and appears to have been heavily grazed in the past. The vegetation is mostly a weedy grassland. A herbaceous wetland is present along the toe slope of the adjoining upland and appears to receive water from seepage near the base of the slope. Water may also be provided by overbank flooding and alluvial groundwater flows. A

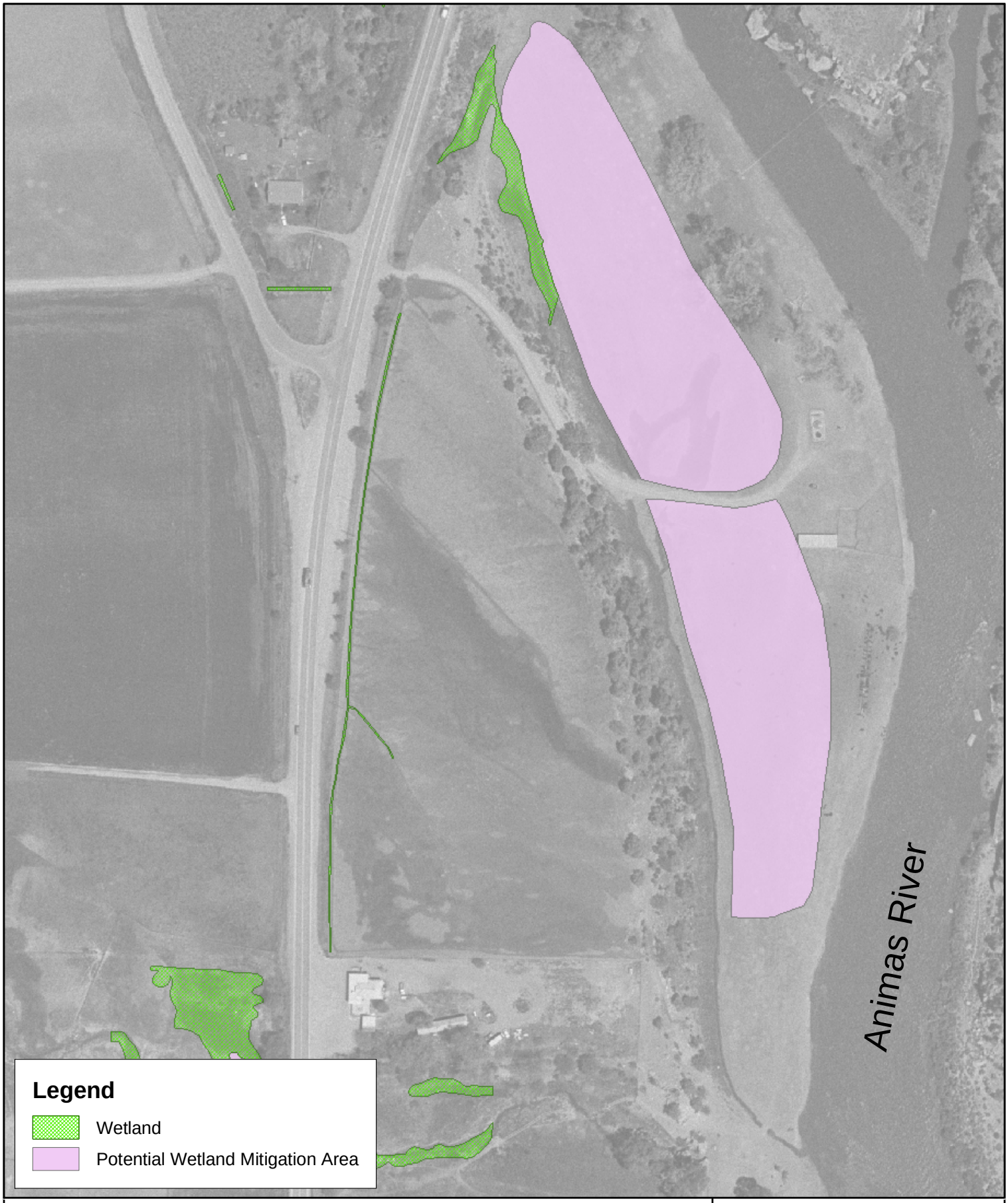

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Figure 2
Animas River Terrace
Wetland Mitigation Area

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number of cottonwoods occur on slightly higher ground adjacent to the river. Soils are mapped as Tefton loam, a deep, somewhat poorly drained soil of floodplains and alluvial valley floors (SCS 1982).

The proposed mitigation site would be developed by excavating portions of the grassland next to the existing wetland to reach the groundwater table. There is an existing shallow groundwater table in meadow areas adjacent to the wetland, which appears to be supported by seepage from the adjoining upland, because the wetland is about 4 to 6 feet higher in elevation than the river surface. Water may potentially also be provided by redirecting seepage flows from Wetlands 58 and 59 that will be covered during construction of the wider embankment needed for the four-lane highway. The wetland will mimic a natural wetland depression ("meander scar") left behind by channel migration. It will be a combination PEM/PSS wetland with a large PSS area for southwestern willow flycatcher habitat. Depth of excavation is expected to range from 1 to 3 feet depending on the depth to groundwater. Excavation depth will be determined by monitoring of groundwater elevations throughout a complete growing season. The existing wetland and mature cottonwoods will be preserved wherever possible.

The mitigation will consist of about 2 acres of new wetland and about 2.75 acres of riparian habitat. The wetland will be planted with native forbs, grass-like plants, and shrubs. Wetland vegetation will be transplanted from portions of Wetlands 58 and 59 that will be filled by the project, if possible and appropriate. The riparian mitigation area consists of mature cottonwood trees with a weedy herbaceous layer and will be enhanced by planting of young trees and shrubs and by weed control. Mitigation may also include seeding. The riparian area will not require excavation. The mitigation area is bordered by the Animas River, US 550, the upland slope west of the river, and a farm road and farm buildings to the south. The mitigation area could potentially be expanded to the south on the terrace.

Wetland functions expected to be replaced at this wetland include federal endangered and threatened species habitat (bald eagle and southwestern willow flycatcher), state special status species habitat (northern leopard frog), general wildlife habitat, surface water storage, sediment and nutrient retention, and production export. In addition, the existing groundwater discharge is expected to continue.

Potential Site #2: Deer Creek Canyon Mitigation Area. The portion of Wetland 61 that would be filled during road widening is a wetland drainage that carries water from seepage areas further uphill to Deer Creek. This mitigation area (Figure 3) would create the drainage at the toe of the road slope in order to maintain the connectivity of the wetland to Deer Creek. The lower part of the road embankment would be constructed of impervious or slowly draining material, and minor excavation would be used to direct drainage flows toward Deer Creek at the new location. The total area of wetland replaced would be about 0.1 acre. The existing habitat is a heavily grazed pasture with sparse upland vegetation. Riparian trees and shrubs could be planted along the mitigation wetland and along Deer Creek, if livestock are excluded.

Potential Site #3: Ditch Relocation. Wetlands W-7, W-33 and W-38 generally parallel US 550 and would be relocated to the edge of the ROW under all action alternatives. The existing fringe wetlands along these ditches will be recreated by operating the ditches at their new locations because of the presence of water and clay loam soils. Wetland establishment can be enhanced, if needed, by transplanting wetland vegetation from the old ditch to the new. Typical species along

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Figure 3
Deer Creek Canyon
Wetland Mitigation Area

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these ditches include redtop, creeping spikerush, Baltic rush, reed canarygrass, timothy, small-fruit bulrush, sandbar willow, and broadleaf cattail. Average fringe wetland width is expected to be the same for relocated ditches as for existing ditches, if slopes are the same. Functions that are likely to be replaced include surface water storage, production export, and bank stabilization. General wildlife habitat and threatened and endangered species habitat may also be created if the ditch companies allow creation of willow habitat. The expected mitigation areas are shown in Table 4.

Table 5
Expected Irrigation Ditch Mitigation Areas

Wetland Mitigation Area	Length	Average fringe wetland width (excluding open channel)	Size of Mitigation area (sq. ft.)	Size of Mitigation area (acres)
W-7 (relocated)	1400	8	11,200	0.26
W-33 (relocated)	3815	5	19 075	0.44
W-38 (relocated)	3930	3	11,790	0.27
Total			**42,065**	**0.97**

This mitigation will replace approximately two-thirds of the impacts to irrigation ditches. Other ditches impacted by the project are less likely to be moved and more likely to be piped or carried through a culvert across the ROW, or have narrower fringe wetlands that are less likely to be replicated at the new location. These wetlands will be mitigated at another wetland mitigation site.

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

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Appendix A
Wetlands In Study Area

Wetland Number	Map Number	Wetland Group	Descriptive Type	Cowardin Type	Size (acres)	Size (Square feet)	Jurisdictional?	Wetland Functions										
								Federal Threatened and Endangered Species Habitat	State Special Status Species Habitat	General Wildlife Habitat	General Fish/aquatic Habitat	Flood Attenuation	Surface Water Storage	Sediment , Nutrient , and toxicant Retention	Sediment/ Shoreline Stabilization	Production Export/ Food Chain Support	Groundwater Discharge/Recharge	Uniqueness	Recreation/ Education Potential
1	11	Sewage lagoon		PEM, POWF	0.009	393	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
2	11	Roadside ditch		60% PEM/ 40% PSS	0.053	2,320	No - isolated (cut off by road). Mapped int. trib of Animas	Low	Low	Mod.	NA	Low	Low	Mod.	NA	Low	Low	Low	Low
3	11	Other isolated pond		PEM	0.013	565	No - isolated	Low	Low	Low	Low	NA	Low	Mod.	NA	Low	Low	Low	Low
4	11	Hillside seep		50% PEM/ 50% PSS/ PAB (O-1)	0.092	4,026	Yes - drainage connects to Animas on topo	Low	High	High	Mod.	NA	Low	Mod.	NA	Mod.	High	Mod.	Low
5	11	Hillside seep		PEM	0.503	21,911	No - on steep slope above Animas R., does not appear to be connected	Low	Low	Mod.	NA	NA	NA	Mod.	NA	Mod.	High	Low	Low
6	11	Sewage lagoon		PEM/POW	0.019	826	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
7	10-11	Isolated irrigation ditch	Coop Ditch - northern part	80% PEM/ 20% PSS	0.804	35,009	No - irrigation	Mod.	Low	Low	NA	Low	Mod	Low	Low	Mod.	Low	Low	Low
8	11	Sewage lagoon		PEM	0.006	242	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
9	10	Isolated irrigation ditch		80% PEM/ 20% PSS	0.039	1,683	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Mod.	Low	Low	Low
10	10	Isolated irrigation ditch	Coop Ditch - middle part	50% PEM/ 50% PSS	0.078	3,390	No - irrigation	Mod.	Low	Mod.	NA	Low	Low	Low	Low	Mod.	Low	Low	Low
11	10	Sewage lagoon		PEM, POWF	0.003	110	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
13	10	Roadside ditch		PEM	0.013	547	No - isolated	Low	Low	Low	NA	Low	Low	Low	NA	Low	Low	Low	Low
14	10	Isolated irrigation ditch		PSS	0.018	789	No - irrigation	Low	Low	Mod.	NA	Low	Low	Low	Low	Low	Low	Low	Low
15	9-10	Isolated irrigation ditch	Coop Ditch - south part	80% PEM/ 20% PSS	0.434	18,865	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Mod	Low	Low	Low
16	9-10	Other isolated pond		PEM fringe around PAB (O-3)	0.021	898	No - isolated	Low	Mod	Mod.	Mod.	NA	Low	Mod.	Low	Mod.	High	Low	Low
17	9	Isolated irrigation ditch		PEM	0.385	16,759	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low

Wetland Number	Map Number	Wetland Group	Descriptive Type	Cowardin Type	Size (acres)	Size (Square feet)	Jurisdictional?	Wetland Functions											
								Federal Threatened and Endangered Species Habitat	State Special Status Species Habitat	General Wildlife Habitat	General Fish/aquatic Habitat	Flood Attenuation	Surface Water Storage	Sediment , Nutrient , and toxicant Retention	Sediment/ Shoreline Stabilization	Production Export/ Food Chain Support	Groundwater Discharge/Recharge	Uniqueness	Recreation/ Education Potential
18	9	Isolated irrigation ditch		60% PEM/ 40% PSS	0.056	2,449	No - irrigation	Low	Low	Mod.	NA	Low	Low	Low	Low	Low	Low	Low	Low
19	9	Other isolated pond		PEM/PUB	0.007	296	No - isolated	Low	Low	Low	Low	NA	Low	Mod.	NA	Low	Low	Low	Low
20	9	Sewage lagoon		PEM, POWF	0.015	646	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
21	9	Isolated irrigation ditch		PEM	0.072	3,132	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Mod.	Low	Low	Low
22	9	Roadside ditch		85% PEM/ 15% PSS	0.169	7,348	No - isolated	Low	Low	Low	NA	NA	Low	Mod.	NA	Low	Low	Low	Low
23	9	Other isolated pond		PEM/PAB	0.021	897	No - isolated	Low	Low	Mod.	Low	NA	Low	Mod.	NA	Low	Low	Low	Low
24	9	Sewage lagoon		PEM/POWF	0.015	661	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
25	9	Other isolated pond		PEM around PAB (O-4)	0.758	33,000	No - appears to be isolated from Trumble Draw	Low	Mod.	Mod.	Low	NA	Mod.	Mod.	NA	Low	High	Low	Low
27	9	Trumble Draw	Resembles irrigation ditch	PEM	0.108	4,705	Yes- connected to Trumble Draw	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
28	9	Trumble Draw	Resembles irrigation ditch	80% PEM/ 20% PSS	0.051	2,219	Yes - connected	Low	Low	Low	NA	Low	Low	Low	Low	Mod.	Low	Low	Low
29	8-9	Trumble Draw	Ressembles irrigation ditch	85% PEM/ 15% PSS	0.161	7,027	Yes - connected	Low	Low	Low	NA	Low	Low	Low	Low	Mod.	Low	Low	Low
30	8	Trumble Draw	swale	PEM	0.331	14,403	Yes- connected	Low	Low	Low.	NA	Low	Low	Low	Low	Low	Low	Low	Low
31	8	Sewage lagoon		PEM, POWF	0.007	311	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
32	8	Isolated irrigation ditch		PEM	0.001	32	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
33	7-8	Isolated irrigation ditch		95% PEM/ 5% PSS	0.861	37,500	No - irrigation	Low	Low	Mod.	NA	Low	Mod.	Low	Low	Mod.	Low	Low	Low
34	8	Other isolated pond		PEM fringe around PAB (O-5)	0.071	3,108	No - isolated	Low	High	Low	Mod.	NA	Low	Mod.	Low	Mod.	High	Low	Low
35	7	Sewage lagoon		PEM, POWF	0.024	1,034	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low

Wetland Number	Map Number	Wetland Group	Descriptive Type	Cowardin Type	Size (acres)	Size (Square feet)	Jurisdictional?	Wetland Functions										
								Federal Threatened and Endangered Species Habitat	State Special Status Species Habitat	General Wildlife Habitat	General Fish/aquatic Habitat	Flood Attenuation	Surface Water Storage	Sediment , Nutrient , and toxicant Retention	Sediment/ Shoreline Stabilization	Production Export/ Food Chain Support	Groundwater Discharge/Recharge	Uniqueness	Recreation/ Education Potential
36	7	Other isolated pond		PEM fringe around PAB (O-6)	0.195	8,511	No - isolated	Low	Mod.	Mod.	Low	NA	Mod.	Mod.	Low	Mod.	High	Low	Low
37	7-8	Isolated irrigation ditch		PEM	0.165	7,172	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
38	6-7	Isolated irrigation ditch		95% PEM/ 5% PSS	1.165	50,754	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
39	7	Isolated irrigation ditch		PEM	0.019	841	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
40	7	Sewage lagoon		PEM, POWF	0.009	388	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
41	7	Other isolated pond		PEM/POW	0.140	6,077	No - isolated, irrigation	Low	Mod.	Mod.	Mod.	NA	Low	Mod.	NA	Low	Low	Low	Low
42	7	Isolated irrigation ditch		PEM	0.256	11,146	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
43	7	Isolated irrigation ditch		PEM	0.016	692	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
44	6	Isolated irrigation ditch		PEM	0.093	4,041	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
45	6	Isolated irrigation ditch		PEM	0.024	1,039	No - isolated, irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
46	6	Roadside Ditch		PEM	0.009	400	No - isolated, irrigation	Low	Low	Low	NA	Low	Low	Low	NA	Low	Low	Low	Low
47	6	Unnamed Tributary of Florida River	swale	PEM	0.428	18,636	Yes - connects to Florida River	Low	Low	Low	NA	Low	Mod.	Mod.	Low	Low	Low	Low	Low
48	6	Unnamed Tributary of Florida River	Irrigation ditch	PEM	0.100	4,340	Yes - connects to Florida River	Low	Low	Low	NA	Low	Low	Mod.	Low	Low	Low	Low	Low
49	5-6	Unnamed Tributary of Florida River	Irrigation ditch	PEM	0.317	13,790	Yes - connects to Florida via tributary	Low	Mod.	Mod.	NA	Low	Low	Low	Low	Low	Low	Low	Low
50	5-6	Unnamed Tributary of Florida River	swale	PEM	0.407	17,723	Yes - connects to Florida River	Low	Low	Mod.	NA	Low	Mod.	Mod.	NA	Low	Low	Low	Low
51	5-6	Unnamed Tributary of Florida River	swale	PEM	0.164	7,152	Yes - connects to Florida River	Low	Low	Low	NA	Low	Low	Mod.	NA	Low	Low	Low	Low
52	5-6	Sewage lagoon		PEM, POWF	0.017	725	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low

Wetland Number	Map Number	Wetland Group	Descriptive Type	Cowardin Type	Size (acres)	Size (Square feet)	Jurisdictional?	Wetland Functions										
								Federal Threatened and Endangered Species Habitat	State Special Status Species Habitat	General Wildlife Habitat	General Fish/aquatic Habitat	Flood Attenuation	Surface Water Storage	Sediment , Nutrient , and toxicant Retention	Sediment/ Shoreline Stabilization	Production Export/ Food Chain Support	Groundwater Discharge/Recharge	Uniqueness	Recreation/ Education Potential
53	5-6	Unnamed Tributary of Florida River	Irrigation ditch	PEM	0.047	2,061	Yes - connects to Florida River	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
54	5	Hillside seep		PEM	0.032	1,389	No - appears to be isolated	Low	Low	High	NA	NA	Low	Low	NA	Low	High	Mod.	Low
55	5	Sewage lagoon		PEM, POWF	0.004	169	No - isolated	Low	Low	Low	NA	NA	NA	Mod.	NA	Low	Low	Low	Low
56	5	Hillside seep		PEM	0.036	1,553	No - appears to be Isolated. Spring flow used for irrigation	Low	Low	High	NA	NA	NA	Mod.	NA	Low	High	Mod.	Low
57	4	Animas River floodplain	floodplain, hillside seep	50% PEM/ 40% PSS/ 10% PAB	0.085	3,704	Yes - adjacent to Florida	High	High	High	Low	Low	Low	High	NA	Mod.	High	Mod.	Low
58	3	Animas River floodplain	floodplain, hillside seep	85% PEM/ 5% PSS/ 10% PAB	0.798	34,768	Yes - hydrologically connected to river	High	High	High	Low	Low	Mod	High	NA	Mod	High	Mod.	Low
59	3	Animas River floodplain	Floodplain, hillside seep	PEM	0.312	13,602	Yes - hydrologically connected to river	Low	Low	Mod.	NA	Low	Low	Mod	NA	Mod.	High	Low	Low
60	3	Isolated irrigation ditch		PEM	0.052	2,259	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
61	3	Deer Creek	Hillside seep	PEM	0.483	21,035	Yes - connected to Deer Creek	Low	Low	Low	NA	NA	NA	Low	NA	Mod.	High	Low	Low
62	3	Deer Creek	Creek and adjoining wetlands	60% PEM/ 40% RS3SB	0.294	12,798	Yes- creek connected to Animas River	Low	Low	Low	Mod.	Low	Low	Low	Low	Mod.	Low	Low	Low
63	3	Deer Creek	hillside seep	PEM	0.040	1,761	Yes - connects to Deer Creek	Low	Low	Low	NA	NA	Low	Low	NA	Low	High	Low	Low
64	3	Isolated irrigation ditch		PEM	0.020	889	No - irrigation	Low	Low	Low	NA	Low	Low	Low	Low	Low	Low	Low	Low
65	3	Hillside seep		60% PEM/ 40% PSS	0.005	217	No - isolated, irrigation-related	Low	Low	Mod.	NA	NA	Low	Low	NA	Low	High	Low	Low
66	3	Animas River floodplain	floodplain, hillside seep	PEM	0.041	1,771	Yes - hydrologically connected to river	Low	Low	Mod.	NA	Low	Low	Mod.	NA	Low	High	Mod.	Low

Wetland Number	Map Number	Wetland Group	Descriptive Type	Cowardin Type	Size (acres)	Size (Square feet)	Jurisdictional?	Wetland Functions											
								Federal Threatened and Endangered Species Habitat	State Special Status Species Habitat	General Wildlife Habitat	General Fish/aquatic Habitat	Flood Attenuation	Surface Water Storage	Sediment , Nutrient , and toxicant Retention	Sediment/ Shoreline Stabilization	Production Export/ Food Chain Support	Groundwater Discharge/Recharge	Uniqueness	Recreation/ Education Potential
67	7	Other isolated pond		PEM			No- isolated, irrigation	Low	Mod.	Low	NA	Low	Low	Mod	NA	Mod.	Low	Low	Low
68	9	Isolated irrigation ditch		PEM			No – irrigation	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
69	4-5	Isolated irrigation ditch	Paxton Ditch	PEM			No – irrigation	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
70	3	Isolated irrigation ditch		PEM			No – isolated	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
71	3	Roadside ditch		PEM			No – isolated	Low	Low	Low	NA	Low	Low	Low	NA	Low	Low	Low	Low
72	3	Stateline North mitigation area		PEM			Yes – outflow is captured by Two Rock Ditch, which crosses into New Mexico	Low	Low	Mod.	NA	Low	Mod.	Mod.	Low.	Mod.	High	Low	Low

Table A-2
Soil Pit Data

Soil Pit Number	Wetland/Upland	Location	Soil Depth (inches)	Matrix Color	Mottle Color	Mottle Density/ Size	Texture	Hydrology	Surface Vegetation at Soil Pit	Notes
Animas River Wetlands										
59-A	Wetland	Edge of wetland	0-6 6-8+	10YR4/2 10YR4/2	None 7.5YR4/5	-- Common, large	Fibrous silty clay Silty clay loam	Saturated to surface, most of wetland has shallow inundated	Creeping bentgrass, softstem bulrush, fox-tail barley, Torrey rush, alkali muhly	
59-B	Upland	About 50 feet east of 59-A	0-12	7.5YR4/3	None	--	Clay loam	Saturation at 16 inches	Akali muhly, wild licorice, foxtail barley, kochia, white goosefoot, dandelion, chicory	
Deer Creek Wetlands										
61-A	Wetland	Middle of wetland	0-12 12+	2.5/N 2.5/N	None None	-- --	Fibrous organic matter mixed with clay Clay	Saturated to surface, inundated to 12 inches, very hummocky	Creeping spikerush	
Unnamed Tributary of Florida River										
47-A	Wetland	Middle of wetland	0-1 1-16	10YR3/1 7.5YR5/2	None 7.5YR5/8	-- Numerous, small	Clay loam, fibrous Clay Loam	Saturated to surface	Reed canary grass, creeping spikerush	
U.S 550 State Line North Mitigation Wetland										
72-A	Wetland	3 feet within cattail zone	0-2 2-12	2.5Y3/1 10YR4/1	None None	-- --	Clay Clay	Saturated to surface, mostly inundated	Broadleaf cattail	
72-B	Upland	About 20 feet from 72-A	0-6 6-8 8+	10YR3/4 2.5Y6/8 Rock	None None None	-- -- --	Loam Hard sandy loam White sandstone	No indicators	Mix of upland grasses and weedy forbs	
72-C	Wetland (Stateline North mitigation area)	Wetland on east berm	0-12	10YR5/2	7.5YR4/4	Abundant	Loamy clay	Saturated to surface, inundated in parts, drainage patterns	Creeping bentgrass, Torrey rush, sandbar willow, willowherb, creeping spikerush, others	
Roadside Ditch Wetlands										
71-A	Wetland	Bottom of depression	0-12	Mix of 10YR4/3, 10YR3/3, and 10YR5/1	None	--	Clay loam	Saturated to surface, sediment deposits, partly inundated	Barnyard grass, spikerush	Problem area, newly constructed
71-B	Upland	Near 71-A	0-9	Mix of 5Y4/3, 7.5YR5/6, 2.5Y4/1, 2.5Y4/3	None	--	Cobbly loamy clay	No indicators	Tall wheatgrass, slender wheatgrass, plantain, Indian ricegrass, yellow sweetclover	

Table A-2
Soil Pit Data

Soil Pit Number	Wetland/Upland	Location	Soil Depth (inches)	Matrix Color	Mottle Color	Mottle Density/ Size	Texture	Hydrology	Surface Vegetation at Soil Pit	Notes
Other Isolated Ponds										
67-A	Wetland	Perimeter	0-2 2-12	10YR3/2 10YR4/3	None None	None None	Loam Loamy clay	Saturated to surface	Reed canary grass	Problem area
67-B	Upland	10 feet from 67-A, in upland	0-1 1-12	2.5Y/1 10YR4/3	None None	None None	Loam, high organic Loamy clay	No indicators	Dense quackgrass	
Isolated Irrigation Ditches										
68-A	Wetland	Bottom of ditch	0-8 8-12+	7.5YR3/2 10YR4/4	7.5YR4/6 None	5%, to ¼ inch --	Clay loam Silty clay loam	Very moist, sediment deposits	Cattail and small-fruit bulrush	
69-A	Wetland	1 foot down- slope from ditch	0-12	10YR3/2	5YR4/6	20%, to 1/8 inch	Clay loam, many cobbles	Saturated at 8 inches	Baltic rush, creeping bentgrass	
69-B	Upland	10 feet from 69-A, edge of pipeline right of way	0-3 3-7 7-12	10YR3/3 10YR3/4 10YR4/4	None 7.5YR4/6 None	-- 10%, slight contrast --	Clay loam Sandy clay loam Clay loam	No indicators	Chicory, dandelion, plantain, squirreltail, cheatgrass	
Non-Wetland Data Points										
NW-1	Upland	Middle of potential wetland	0-12	10YR4/3	Faint		Loamy clay	No indicators	Creeping spikerush, plantain, foxtail barley	
NW-2	Upland	Middle of potential wetland	0-14	7.5YR3/3	Faint	Small	Clay loam	No indicators	Creeping spikerush, bluegrass	
NW-3	Upland	Middle of potential wetland	0-10+	10YR4/3	Faint	Few	Clay loam	No indicators	Creeping spikerush, plantain, foxtail barley	
NW-4	Wetland	1 foot from edge of wetland	0-6 6-12 12+	10YR4/4 10YR4/3 10YR4/4	None 2.5Y/1 None	-- 20%, moderate --	Clay loam Clay loam Clay loam	Saturated at 4 inches	Dense tall reed canarygrass	
NW-5	Upland	Middle of drainage pattern	0-12	10YR4/3	None	--	Stiff clay	Drainage patterns	Dense spikerush	
NW-6	Upland	Bottom of swale	0-9 9-12+	10YR4/3 10YR/2	7.5YR4/4 None	Few, large	Clay loam Clay loam	No indicators	Dense wooly sedge	

Appendix B
Representative Wetland Photographs

Animas River Wetlands – Wetland 57

Animas River Wetlands – Wetland 58

Deer Creek Wetlands – Wetland 61

Deer Creek Wetlands – Soil pit in Wetland 61

Deer Creek Wetlands – Wetland 62 and Deer Creek

Trumble Draw Wetlands – Wetland 27

Trumble Draw Wetlands – Wetland 30

Unnamed Tributary of Florida River – Wetland 47

Unnamed Tributary of Florida River – Wetland 49

Unnamed Tributary of Florida River – Wetland 50

Hillside Seeps – Wetland 54

Hillside Seeps – Wetland 56

Roadside Ditches – Wetland 2

Roadside Ditches – Wetland 13

Sewage Lagoons – Wetland 8

Sewage Lagoons - Wetland 52

Other Isolated Ponds – Wetland 16

Other Isolated Ponds – Wetland 36

Irrigation Ditches in Uplands – Wetland 7

Irrigation Ditches in Uplands – Wetland 18

Appendix C
Wetland Maps

Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- MP 1 — Mile Post
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

US 550

Wetlands
Map 1 of 11

08/12/04

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Legend

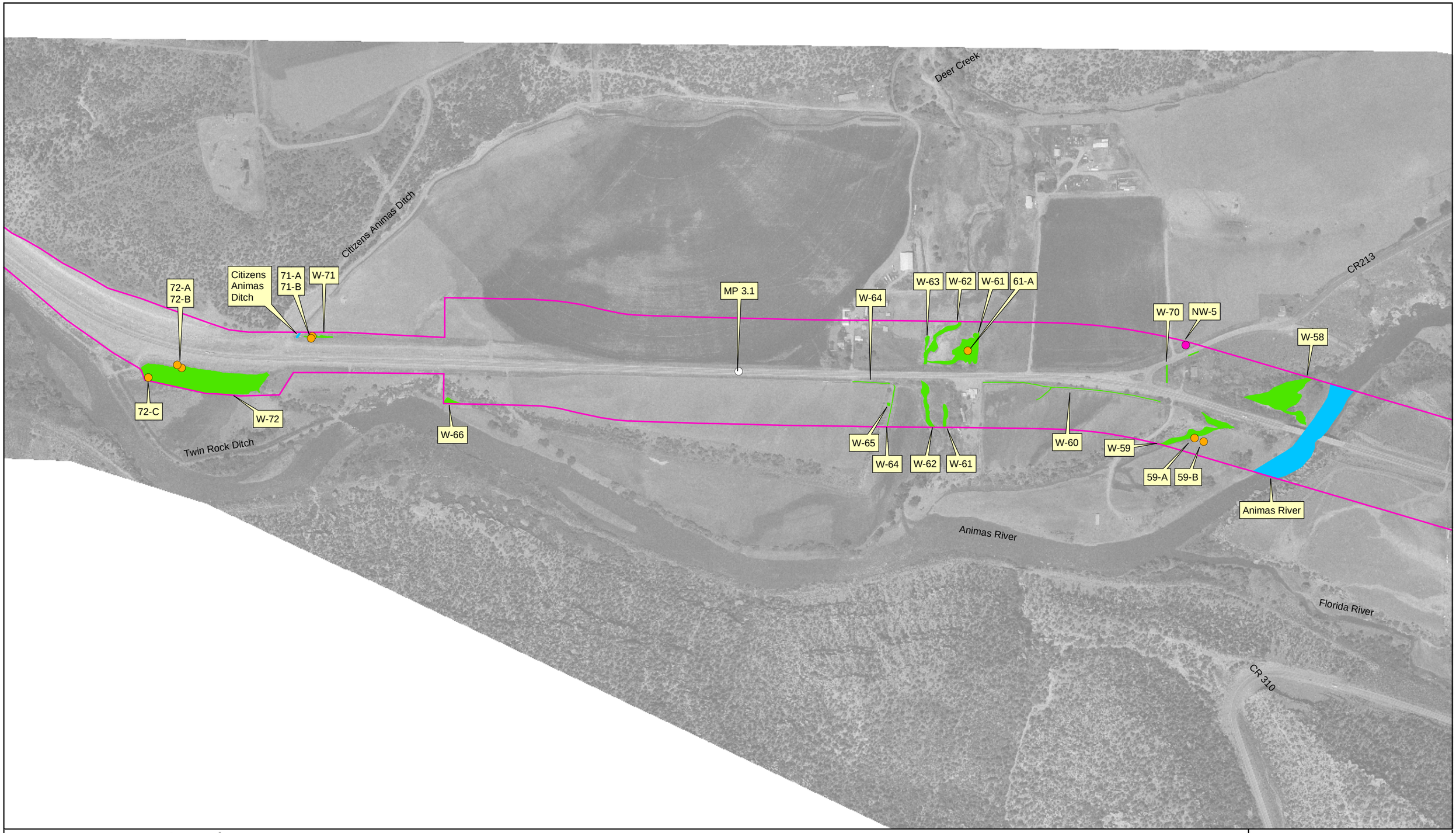
- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

US 550

Wetlands
Map 2 of 11

07/19/04



Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- MP 1 — Mile Post
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

US 550

Wetlands
Map 3 of 11

08/12/04

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CR213

Animas River

W-57

rida River

Florida River

CR 310

Bondad Hill Drainage

O-8

W-69

69-A
69-B

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US 550

Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

DOT

US 550

Wetlands
Map 4 of 11

07/19/04

W-56
W-54
MP 6.6
W-49
W-50
W-69
69-A
69-B
Paxton Ditch
W-55
W-53
W-52
W-51
Unnamed Tributary of Florida River
Florida River

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Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- MP 1 — Mile Post
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

US 550

Wetlands
Map 5 of 11

08/12/04

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US 550

Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

DOT

US 550

Wetlands
Map 6 of 11

07/19/04

W-43
W-38
W-38
W-38
W-38
W-38
W-38
W-38
W-42
W-42
W-42
W-42
W-41
W-40
W-39
O-7
67-A
67-B
W-67
NW-4
W-38
W-38
W-38
W-38
W-33
O-6
W-33
W-37
W-37
W-36
W-35
W-33
W-33
W-33
W-39
W-37
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US 550

Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

DOT

US 550

Wetlands
Map 7 of 11

07/19/04

Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- MP 1 — Mile Post
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

US 550

Wetlands
Map 8 of 11

08/12/04

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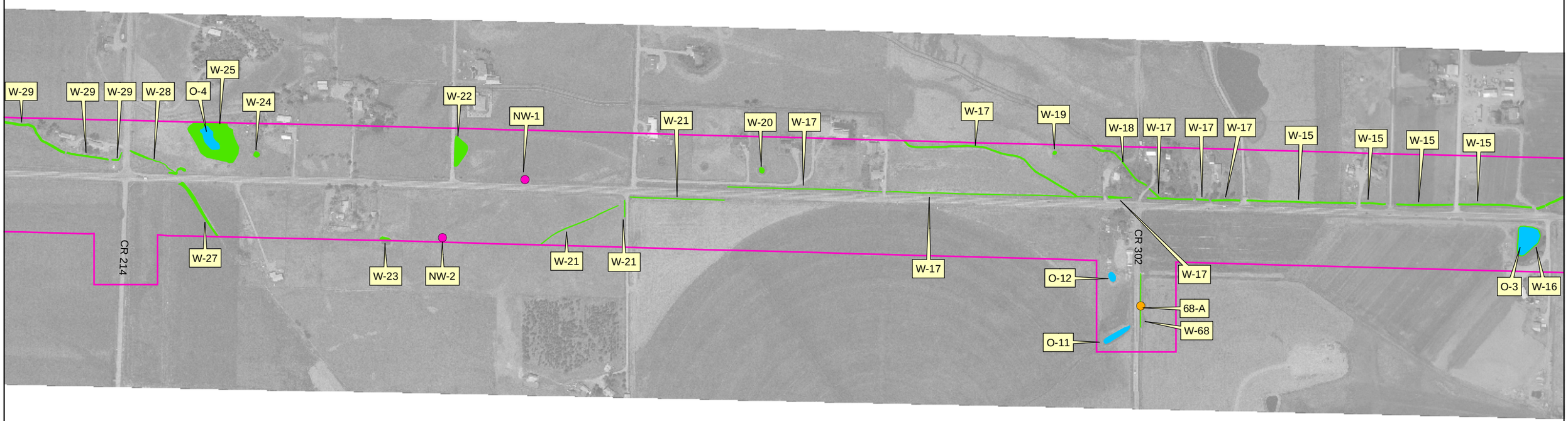

Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

US 550

Wetlands
Map 9 of 11

07/19/04

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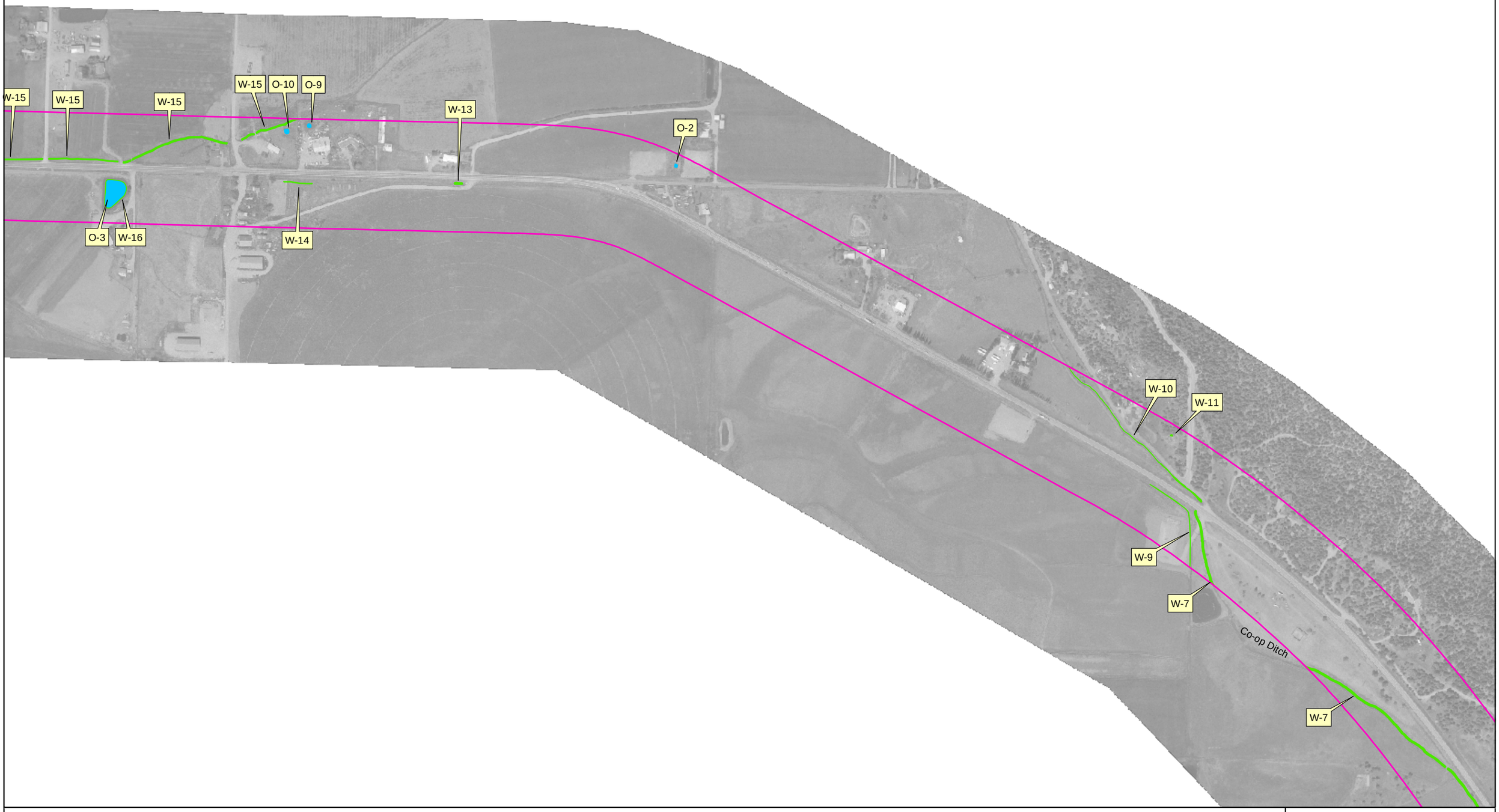

Legend

- NW-10 — Non-Wetland Sample Point
- 10-A — Soil Pit Location
- Waters of the U.S.
- Wetland Study Area
- O-10 — Other Waters
- W-10 — Wetlands

500 250 0 500 1,000 Feet

US 550

Wetlands
Map 10 of 11

07/19/04

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W-7
W-8
W-7
W-7
Co-op Ditch
W-7
W-6
W-5
W-5
O-1
W-4
MP 15.4
W-1
W-2
W-2
W-3

Legend

NW-10 Non-Wetland Sample Point
10-A Soil Pit Location
MP 1 Mile Post
Waters of the U.S.
Wetland Study Area
O-10 Other Waters
W-10 Wetlands

500 250 0 500 1,000 Feet

US 550

US 550

Wetlands
Map 11 of 11

08/12/04

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Appendix D
Routine Wetland Determination Data Forms

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

(1)

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Dawson and A. Herb	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~Ditch~~ (1)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Lagoon - west

Photo

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: M. officinalis, H. annuus on edge

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-24 (in.)

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

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Typical lagoon ~ 50% water

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8% Drainage Class: well-drained

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes	No	(Circle)	
Wetland Hydrology Present?	Yes	No		
Hydric Soils Present?	Yes	No		
Is this Sampling Point Within a Wetland?	Yes	No	(Circle)	

Remarks: Typical lagoon

Approved by HQUSACE 3/92

(2)

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: T. Dawson and B. Heil	Date: 9/20/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~SU~~ (2) Transect ID: Plot ID: Ditch/swale (east)

Photo 1-20

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	
2. Rumex triang.	H	FACW 5%
3. Typha latifolia	H	OBL 5%
4. Hordeum jubatum	H	FACW 5%
5. Phleum pratense		
6. Salix exigua	S	OBL 40%
7. Scirpus microcarpus	H	OBL 10%
8. Salix lasiandra	S	OBL 10%
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Northern most area is S. exigua w/Scirpus understory. Lower reach is more Rumex + Hordeum. Northern area has some dead willows (S. lasiandra). B. inermis on edges

* Not Dom.

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: Swale swale Not likely receives irrig. overflow + surface runoff

SOILS

Map Unit Name
(Series and Phase): Fallon Clay loam 3-8%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No Assumed	Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Small grade on edge of hay field.

Approved by HQUSACE 3/92

(3)

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: Dawson and Hess	Date: 9/20/11 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~SW-1~~ (3) Transect ID: ____ Plot ID: Pond (east)

Photo 1-16

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL 10%	9.		
2. Scirpus validus		<1%	10.		
3. Echinochloa crusgalli	H	FACW 5%	11.		
4. Unk aquatic	A	OBL 30%	12.		
5. Eleocharis quinqua.		<1%	13.		
6. Hordeum jubatum		2%	14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Small pond w/Hordeum + Echinochloa along WL edge and pockets of the other listed species

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: Small pond currently dry but water marks, sediment deposits + debris present. Small swale provides water flows during precip. events.

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) ~~No~~ Assumed

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks: Dry pond w/aquatic veg. (dead/dying)

Approved by HQUSACE 3/92

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

(4)

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J. Dawson and A Hevl	Date: 10/23/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? Yes (No) Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~84-4~~ Transect ID: (4) Plot ID: pond - west

Photo

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2. Poa sp.	H	FACW-FACW	10.		
3. Rumex mexicanus	H	FACW	11.		
4. Salix exigua	S	OBL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 75 - 100 %

Remarks: Some Populus angustifolia along edges. Small pond at lower end dominated by cattail.

w/fringe

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-48	(in.)
Depth to Free Water in Pit:	–	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Natural drainage - continuation of WL 84-2. Small pond at lower end

SOILS

Map Unit Name (Series and Phase): Folda clay loam 2-8% Drainage Class: Well-D

Field Observations

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes No (Circle)	(Circle)
Wetland Hydrology Present?	Yes No	
Hydric Soils Present?	Yes No	Is this Sampling Point Within a Wetland? Yes No

Remarks: Large WL w/ Riparian veg along edges — at least 4 small drainages feed the WL.

(5)

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

Project/Site: US 550	Date: 9/20/01
Applicant/Owner: CDOT	County: La Plata
Investigator: S. Dawson and A. Hewes	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~SW3~~ 5
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	

Photos 1-17, 18, 19

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL 15%
2. Agrostis stolonifera	H	FACW 40%
3.* Epilobium ciliatum	H	
4.* Veronica americana	H	
5.* S. exigua	S	2%
6. Sphagnum (or other moss) sp.		5%
7.* Scirpus microcarpus	H	2%
8. Populus angustifolia	T	
9.* Cornus sericea	S	
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). Some dead

Remarks: C. arvense along perimeter. Pinon/Juniper throughout + around. Cottonwoods w/in + around some areas (mostly P. angustifolia) w/ Solidago. * Not dominant

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-1 (in.)
Depth to Free Water in Pit:	(in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Few small areas inundated — most is saturated. + series of hillside seeps

SOILS

Map Unit Name (Series and Phase): Mapped on edge of Barkland / Felix dry loam 3-8%

Drainage Class: Well-drained

Taxonomy (Subgroup): _____

Field Observations Confirm Mapped Type? Yes (No) Not barkland

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit — Soil clayey w/many cobbles

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) / No	(Circle)
Wetland Hydrology Present?	(Yes) / No	
Hydric Soils Present?	(Yes) / No	

Is this Samplig Point Within a Wetland? (Yes) / No (Circle)

Remarks: A series of hillside seeps — some mature cottonwoods + numerous dead pinon/juniper. Some areas very mossy w/ small pools of standing water.

Approved by HQUSACE 3/92

(6)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: J. Dawson and A. Hess

Date: 9/20/01
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~1726-4~~ (6)
Transect ID:
Plot ID: Lagoon/east) – Craig Ranch

No photo

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL
2. Hordeum jubatum	H	FACW
3. Polygonum lapathifolium	H	FACW
4. Unk. aquatic	A	OBL
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Typical lagoon – ~60% aquatic

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0-24 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: 0 (in.)

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

Remarks: Typical lagoon ~ 60% aquatic

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8%

Drainage Class: Well-drained

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Aamd

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Typical lagoon

Approved by HQUSACE 3/92

(7)

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

Project/Site: US 550	Date: 9/20/01
Applicant/Owner: COOT	County: La Plata
Investigator: Dawson and Hess	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~ditch~~ (7)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	ditch (east)

Photo 1-10

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Phalaris arundinacea	H	OBL	9. Juncus balticus	H	FACW
2. Echinochloa crusgalli	H	FACW	10. Hordeum vulgare	H	FAC*
3. Scirpus validus	H	OBL	11. Typha latifolia	H	OBL
4. Agrostis stolonifera	H	FACW	12. Epilobium ciliatum	H	FAC
5. Pondweed	H	OBL	13.		
6. Salix exigua	S	OBL	14.		
7. Glyceria grandis	H	OBL	15.		
8. Phleum pratense	H	FACW	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 92

Remarks: Typical ditch – average WL bank width = 4-5' each side, adjacent uplands are alfalfa/hay. Some areas have small Salix exigua stands

HYDROLOGY

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

Field Observations:

Depth of Surface Water:	0-9 (in.)
Depth to Free Water in Pit:	___ (in.)
Depth to Saturated Soil:	___ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Typical ditch – avg channel width = 4'
Evap Ditch

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3 to 8.

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Hand

(Circle)
Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Large irrig. ditch w/pockets of FSS. Several ditches parallel the main ditch, but no others have a predominance of WL veg.

Approved by HQUSACE 3/92

(8)

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J. Dowden & A. Herb	Date: 9/20/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~12-2~~ (8) Transect ID: Plot ID: Lagoon/east

/ Photo 1-11

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). ______

Remarks: Typical lagoon — perimeter is weedy (H. annuus, et. al.)

HYDROLOGY

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

Field Observations:

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

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

Depth to Saturated Soil: 0 (in.)

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

Remarks: Typical lagoon

SOILS

Map Unit Name (Series and Phase): Fallon clay loam 3-8%

Drainage Class: well

Field Observations

Taxonomy (Subgroup): _____

Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Marginal

Is this Samplig Point Within a Wetland? (Yes) No (Circle)

Remarks: Typical lagoon

Approved by HQUSACE 3/92

(9)

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

Project/Site: US 550	Date: 9/20/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Hess	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~1226~~ 9
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Ditch (east)

/ Photo 1-12

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Scirpus microcarpus	H	OBL
2. Agrostis stolonifera	H	FACW
3. Salix exigua	S	OBL
4. Phleum pratense	H	FACU
5. Phalaris arundinacea	H	OBL
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 80

Remarks: Typical small ditch — fringe wl ~1' on each side

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-6 (in.)
Depth to Free Water in Pit:	___ (in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Small ditch — channel ~1' wide

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8 %

Drainage Class: well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Aband

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks: Typical ditch - small

Approved by HQUSACE 3/92

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

(10)

Project/Site: US 550	Date: 9/20/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Hawk	State: CO

Do Normal Circumstances exist on the site?	(Yes)	No	Community ID: ~~10~~
Is the site significantly disturbed (Atypical Situation)?	Yes	(No)	Transect ID: (10)
Is the area a potential Problem Area?	Yes	(No)	Plot ID:
(If needed, explain on reverse.)			Irrig. ditch

/ Photo 1-9

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Scirpus microcarpus	H	OBL
2. Salix exigua	S	OBL
3. Phalaris arundinacea	H	OBL
4. Agrostis stolonifera	H	FACW
5. Juncus balticus	H	FACW
6. Pondweed	A	OBL
7. Phleum pratense	H	FACU
8. Aster	H	FAC-OBL
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 87

Remarks: Surrounding area: goldenrod, Lactuca, Bromc, Helianthus annuus, A. speciosa, gumweed, Equisetum arvense, Taraxacum officinale
A few S. amygdaloides on banks. WL banks average ~ 3' each side width - Most area are FEM. Some areas are PSS w/Salix exigua

HYDROLOGY

✓ Recorded Data (Describe in Remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary Indicators:
✓ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 Inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	___ Sediment Deposits
Depth of Surface Water: 0-24 (in.)	___ Drainage Patterns in Wetlands
Depth to Free Water in Pit: - (in.)	Secondary Indicators (2 or more required):
Depth to Saturated Soil: 0 (in.)	___ Oxidized Root Channels in Upper 12 Inches
	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: Typical ditch — channel x width 3'
Grass Ditch

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No- Assumed

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks: Typical ditch – some areas contain dense S. exigua stands

Approved by HQUSACE 3/92

(11)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: J. Dawson and A. Herb

Date: 9/20/01
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~TD2~~
Transect ID: (11)
Plot ID: Lagoon

No photo

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: Typical lagoon. H. annuus + other upl. weeds on banks. Typha dominates inner area. Observed from afar – no access

HYDROLOGY

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

Field Observations:
Depth of Surface Water: 0-24 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: 0 (in.)

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

Remarks: Typical lagoon

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8%

Drainage Class: well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)
Wetland Hydrology Present?	Yes	No	
Hydric Soils Present?	Yes	No	Assmd

(Circle)
Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Typical lagoon — observed from afar (no access)

Approved by HQUSACE 3/92

(12)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: J. Dawson and A. Hart

Date: 9/21/01
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~1843~~
Transect ID: (12)
Plot ID: lagoon (west)

No photo

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Scirpus validus	H	OBL
2. Echinochloa crusgalli	H	FACW
3.		
4.		
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Typical lagoon — mostly open water. NL fringe ~2' wide

HYDROLOGY

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

Field Observations:
Depth of Surface Water: 0-24 (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

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

Remarks: Typical lagoon

SOILS

Map Unit Name (Series and Phase): Fofa clay loam 3-8%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Typical lagoon

Approved by HQUSACE 3/92

(13)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: S. Dawson and A Hess

Date: 9/20/01
County: La Plata
State: Co

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~11-11~~ (13)
Transect ID:
Plot ID: Roadside ditch (east)

Photos 1-8

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Carex lanuginosa	H	OBL
2. Scirpus microcarpus	H	OBL
3. Phalaris arundinacea	H	OBL
4. Hordeum jubatum	H	FAC+
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Small roadside ditch - wettest areas are Scirpus. Surrounding area mostly brome + cheatgrass

HYDROLOGY

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

Field Observations:

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

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

Remarks: Small roadside ditch WL - likely receiving water from leaky irrig. pipe crossing WL

SOILS

Map Unit Name (Series and Phase): Falk clay loam 3-8%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - ode dams

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Assumed

(Circle)
Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Small roadside ditch - a result of irrig. water from a leaky pipe.

Approved by HQUSACE 3/92

(14)

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

Project/Site: MS 550	Date: 9/20/01
Applicant/Owner: CPRA	County: La Plata
Investigator: Dawson & Hess	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~A-10~~ (14)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID: Ditch (east)
(If needed, explain on reverse.)	/ Photo 1-7

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Salix exigua	S	OBL 95%
2. Bromus inermis	H	NL 5%
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50

Remarks: PSS WL w/narrow fringe (2' each side). Salix dominates — Bromus is understory in some areas.

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: No water present, but evidence (channel, debris, etc) exists. Small irrig. ditch

SOILS

Map Unit Name (Series and Phase): Falfa Mx loam, 3-8%

Drainage Class: wch

Field Observations

Taxonomy (Subgroup): _____

Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - OBL dom

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Assumed

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks: Small ditch — currently dry. Salix is 6-8' tall + confined to ditch bottom + edges. Surrounding area dominated by brome.

Approved by HQUSACE 3/92

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

(15)

Project/Site: US 550	Date: 9/20/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawn & Herb	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~1~~ (15)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID: Irrg. Ditch (West
(If needed, explain on reverse.)	Photo 1-6

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Sorgus nitrocarpus	H	OBL
2. Agrostis stolonifera	H	FACW
3. Salix exigua	S	OBL
4. Juncus balticus	H	FACW
5. Carex lanuginosa	H	OBL
6. Phalaris arundinacea	H	OBL
7. Echinochloa crusgalli	H	FACW
8. Epilobium ciliatum	H	FAC
9. Whitetgrass	H	FACW
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 89

Remarks: Photo is inaccurate - recent gas well installation has removed some WL veg. Surrounding area is cropland + residential w/some Poa + Bromo with some Asclepias + Cirsium arvense. Some S. exigua is dead - sprayed?

Fringe WL is ~ 3' on each side. S. exigua is very robust, + dense especially on east bank near gas well

HYDROLOGY

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

Field Observations:

Depth of Surface Water:	0-18 (in.)
Depth to Free Water in Pit:	___ (in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Typical ditch - Channel x width ~ 4'
Coop Ditch

SOILS

Map Unit Name (Series and Phase): Falfa clay loam, 3 -> 6% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Typical ditch w/areas of PSS

Approved by HQUSACE 3/92

(16)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: Dawson and Herb

Date: 9/21/01
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~2021~~ (16)
Transect ID:
Plot ID: Pond (east)

1 Photo 1-21

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Scirpus microcarpus	H	OBL 10%
2. Polygonum lapathifolium	H	FACW 20%
3. Eleocharis palustris	H	OBL 40%
4. Echinochloa crusgalli	H	FACW 5%
5.* Switchgrass		
6.* Scirpus validus		
7.* Typha latifolia		
8. Pondweed		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Pond w/ fringe avg ~ 2' wide. Pondweed covers < 10% of aquatics within w/the aquatics visible growing on bottom

* Not dominant

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-6' (in.)
Depth to Free Water in Pit: _____ (in.)
Depth to Saturated Soil: _____ (in.)

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

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

Remarks: Pond w/ pump at dam — apparently an irrig. pond

SOILS

Map Unit Name (Series and Phase): Fa/Fe clay loam 3-8%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Fish observed. Irrig. pond w/ fringe and some aquatic bed

Approved by HQUSACE 3/92

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

(17)

Project/Site: US 550	**Date:** 9/19/01
Applicant/Owner: CDOT	**County:** La Plata
Investigator: Dawson & Herb	**State:** CO
Do Normal Circumstances exist on the site? (Yes) No	**Community ID:** ~~30 #~~ (17)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	**Transect ID:**
Is the area a potential Problem Area? Yes (No)	**Plot ID:**
(If needed, explain on reverse.)	

/ Photo #4

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Scirpus microcarpus	H	OBL	9. Phleum pratense	H	FACU
2. Phalaris arundinacea	H	OBL	10.		
3. Water hemlock ?	H	OBL	11.		
4. Unk Carex sp. #1	H	FACW-OBL	12.		
5. Typha latifolia	H	OBL	13.		
6. Agrostis stolonifera	H	FACW	14.		
7. Juncus balticus	H	FACW	15.		
8. Pondweed	A	OBL	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 78-89%

Remarks: Irrig. ditch w/WL fringe. Banks are: Solidago, B. inermis, C. arvense, A. speciosa, Latuca w/a few scattered Chinese elm. Fringe WL is ~ x of 2' on each side. Dalmatian toadflax. Area grazed by horses.

HYDROLOGY

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

___ **No Recorded Data Available**

Field Observations:

- **Depth of Surface Water:** 0-24 (in.)
- **Depth to Free Water in Pit:** – (in.)
- **Depth to Saturated Soil:** 0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Irrig. ditch flowing ~ 3' wide channel

Roadside: 1'ch 1'x2 fry
Other 3'ch 2'x2 fry

SOILS

Map Unit Name (Series and Phase): Fa/Fc clay loam 1-3%, 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit – OBL/FACW veg, hydrology

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) / No	(Circle)	(Circle)
Wetland Hydrology Present?	(Yes) / No		
Hydric Soils Present?	(Yes) / No	Is this Sampling Point Within a Wetland?	(Yes) / No

Remarks: Typical irrig. ditch w/an avg. fringe of 2' (each side) of a 3' wide channel. Some areas are wider, depending on the condition of the ditch. Active p.dog colony along banks in some areas. Frogs + numerous garter snakes observed.

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

(18)

Project/Site: US 550	Date: 9/18/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Herb	State: CO

Do Normal Circumstances exist on the site?	(Yes) No	Community ID: ~~3~~ (18)
Is the site significantly disturbed (Atypical Situation)?	Yes (No)	Transect ID:
Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes (No)	Plot ID:

/85

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Scirpus microcarpus	H	OBL	9.		
2. Agrostis alba	H	FACW	10.		
3. Phleum pratense	H	FACU	11.		
4. Potamogeton	A	OBL	12.		
5. Typha latifolia	H	OBL	13.		
6. Salix exigua	S	OBL	14.		
7. ~~Phleum pratense~~			15.		
8. Phalaris arundinacea	H	OBL	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 85

Remarks: In grazed pasture.

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 8+ (in.)

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

Depth to Saturated Soil: ______ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Ditch wide ~~w~~ wetland ~~b~~ 2' channel, 5' wl each side strong high flow

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8%.

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: NV pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	
Is this Samplig Point Within a Wetland?	(Yes) No	(Circle)

Remarks:

Approved by HQUSACE 3/92

(19)

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

Project/Site: US 550	Date: 9/19/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Dawson and D. Herb	State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~[illegible]~~ (15) Transect ID: Plot ID:

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VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL	9.		
2. Rumex salicifolius	H	FAC+	10.		
3. Polygonum ramosissimum	H	FACU	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 67

Remarks:

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 24+ (in.)

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

Depth to Saturated Soil: ______ (in.)

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

Remarks: Clean water, Appears to be fed by irrigation flow, not sewage. No obvious inlet or outlet, but fill to 5' from lowest part of berm

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 1-3 %

Drainage Class: well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - inundated

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks: small pond — size of typical hummocked swamp layer, but water there.

Approved by HQUSACE 3/92

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

(20)

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J. Dawson and A. Hewb	Date: 9/19/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~20~~ Transect ID: (20) Plot ID: lagoon

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	Ht	OBL 70%	9.		
2. Echinochloa crusgalli	H	FACW 15%	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Typical lagoon — E. crusgalli on edges. Surrounding area heavily grazed + weedy

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-8 (in.)

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

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Typical lagoon

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 1-3% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit -

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Typical lagoon

Approved by HQUSACE 3/92

(21)

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: Dawson and Herb	Date: 7/18/01 County: La Plata State: Co
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~2~~ (21) Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Agrostis stolonifera	H	FACW
2. Juncus balticus	H	FACW
3. Scirpus microcarpus	H	OBL
4. Carex vulpinoidea	H	OBL
5. Typha latifolia		
6.		
7.		
8. on 551		

Dominant Plant Species	Stratum	Indicator
9. Polygonum lap	H	OBL
10. Agrostis stol	H	FACW
11. Strawberry dove	H	FACW-
12.		
13.		
14.		
15.		
16. on 551		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). _____

Remarks: Water 1" wide. but averages 1' each side 1-2' total
* not dominant
Wetland on lower banks of ditch. Upper banks are Brome's inermis some sunflower, other weeds

HYDROLOGY

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

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: Irrigation Ditch Moderate flow

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 1-3%

Drainage Class: well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No Pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks:

Approved by HQUSACE 3/92

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

(22)

Project/Site: US 550	Date: 9/19/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J Dawson and A Hewb	State: Co
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~Bosq~~
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: 22
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Depression

1 Photo #6

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL 35%	9. * Salix amygdaloides	T	
2. Echinochloa crus-galli	H	FACW 10%	10.		
3. Rumex transmontanus	H	FACW 15%	11.		
4. Hordeum jubatum	H	FAC 5%	12.		
5. Salix exigua	S	OBL 10%	13.		
6. Typha latifolia (low)	H	OBL 2%	14.		
7. Polygonum aviculare ?	H	FACW 7%	15.		
8. * Tamarix sp.	T	<1%	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 86

Remarks: Weedy WL area on edge of pasture. One end has a small ditch w/ the banks dominated by S. exigua, Tamarix + S. amygd. Wettest areas contain Eleocharis w/ the majority of Echinochloa along edges * Non-Native

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: No water present — area likely receives irrig. overflows. Mudcracks and irrig. are visible. Some pools of small ditch are damp

SOILS

Map Unit Name (Series and Phase): Folfa clay loam 1-3 % Drainage Class: Wet

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit — OBL/FACW loams

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No — Assumed

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks: Small emergent WL on edge of hay field/pasture. Dominated by weedy WL species

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

(23)

Project/Site: US 550	Date: 9/18/01
Applicant/Owner: CDOT	County:
Investigator: Dawson and Hecb	State:
Do Normal Circumstances exist on the site? Yes (No)	Community ID:
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: (23)
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	

Phleum

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL	9.		
2. Rumex sp.	H	FACW	10.		
3. Eleocharis quinqueflora	H	OBL	11.		
4. Mertensia sp.	H	OBL	12.		
5. Hordeum jubatum	H	FACW	13.		
6. Pondweed	A	OBL	14.		
7. White water buttercup	H	OBL	15.		
8. Polygonum lapathifolium	H	OBL	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Drawn down pond w/ WL fringe — mostly Eleocharis. At uppermost WL edge: Rumex, Hordeum + Curlycup gumweed. Fringe is ~ ½ of 3' wide — rest of WL is aquatic bed

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-24 (in.)
Depth to Free Water in Pit:	– (in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Pond holding water, but drawn down — WL fringe is narrow w/aquatic bed for inundated areas

SOILS

Map Unit Name (Series and Phase): Felta clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - ORL/FACW + hydrology

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Small pond w/standing water. Edge areas are emergent WCs and water contains numerous aquatics. Area is grazed by horses.

Approved by HQUSACE 3/92

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

24

Project/Site: US 550 Applicant/Owner: CDOT Investigator: S. Dawson and A. Hess	Date: 10/23/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? Yes (No) Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~30~~ 24 Transect ID: 24 Plot ID: lagoon - west

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Typical lagoon

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-24 (in.)

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

Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Lagoon ~ 50% water

SOILS

Map Unit Name (Series and Phase): Falfa Mx Ivan 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

			(Circle)
Hydrophytic Vegetation Present?	(Yes)	No	
Wetland Hydrology Present?	(Yes)	No	
Hydric Soils Present?	(Yes)	No	
Is this Sampling Point Within a Wetland?	(Yes)	No	

Remarks: Typical lagoon - Access denied - obs from road

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

(25)

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Hevb	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: 3038
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: 25
Is the area a potential Problem Area? Yes (No)	Plot ID: Pond - west
(If needed, explain on reverse.)	

Photo

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2. Unk aquatics -	A	OBL	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Pond observed from road — no access

HYDROLOGY

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

Field Observations:

- Depth of Surface Water: 0-36 (in.)
- Depth to Free Water in Pit: _____ (in.)
- Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Large area of open water — although aquatic plants appear to dominate the area

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit — No Access

WETLAND DETERMINATION

			(Circle)
Hydrophytic Vegetation Present?	(Yes)	No	
Wetland Hydrology Present?	Yes	No	
Hydric Soils Present?	Yes	No	
Is this Sampling Point Within a Wetland?	(Yes)	No	

Remarks: No access — observed from road.

Ducks observed.

Approved by HQUSACE 3/92

Laurence + Sandra Zalberus (August)

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

(26)

Project/Site: WJ 550	Date: 9/18/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Hunt	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: 29-2
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: (26)
Is the area a potential Problem Area? Yes (No)	Plot ID: Pond
(If needed, explain on reverse.)	

Photo #24

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL 20%	9.		
2. Phleum pratense	H	FACW <5%	10.		
3. Eleocharis quinquefolia	H	OBL 10%	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 67

Remarks: Old pond - bottom of pond is dominated by small Eleocharis - banks are E. palustris + Phleum. Some areas ~ 15% are bare soil

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: ___ (in.)

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

Depth to Saturated Soil: ___ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Old pond/lagoon - no water present, but evidence of recent water (mud, water marks). Saturated in some areas.

Two small outlet ditches - both dry (non-wet)

SOILS

Map Unit Name (Series and Phase): Kalfa clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - OBL/FACW dom's

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Small pond dominated by Eleocharis. No water present but some areas are saturated. Edges of pond are Phleum + ditches draining pond are not WL.

(27)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: J Pawson and A. Herb

Date: 9/18/96
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: (27)
Transect ID: A2
Plot ID:

Up 23

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL 40
2. Phalaris arundinacea	H	OBL 30
3. Scirpus microcarpus	H	OBL 5
4. Cirsium arvense	H	FACW 5
5. Agrostis stolonifera	H	FACW 5
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 80%

Remarks: Distinct linear wetland in an alfalfa field wetland veg thicker ditch.

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 10 (in.)
Depth to Free Water in Pit: ✓ (in.)
Depth to Saturated Soil: 0 (in.)

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

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

Remarks: Irrigation Ditch 8-10' concrete culvert under road

SOILS

Map Unit Name (Series and Phase): Falfa clay loam, 3-8%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No P.F

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks:

Approved by HQUSACE 3/92

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

(28)

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J Dawson and B. Hamb	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: 327
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: (28)
Is the area a potential Problem Area? Yes (No)	Plot ID: Ditch - West
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2. Salix exigua	S	OBL	10.		
3. Phalaris arundinacea	H	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Typical ditch w/a wide area at culvert
→ 3' x 2 WL area

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: Some areas saturated but ditch not flowing

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)
Wetland Hydrology Present?	(Yes)	No	
Hydric Soils Present?	(Yes)	No	

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks: Typical ditch — continuation of WL 31-1 and 29-1

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

(29)

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J Dawson and K. Henk	Date: 9/21/11 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~32~~ (29) Transect ID: Plot ID: Ditch (west)

Photo 1-23

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Salix exigua	S	OBL
2. Phalaris arundinacea	H	OBL
3. Scirpus validus	H	OBL
4. Agrostis stolonifera	H	FACW
5. Typha latifolia	H	OBL
6. Carex microcarpa	H	OBL
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Ditch contains more veg (in channel) than most. Some areas are dense stands of S. exigua. WL fringe averages ~ 4' on each side. Willows typically spread out but have a dense understory. Areas w/less willow are dom. by Typha and/or Phalaris. Surrounding area is hay fields

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

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

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

Remarks: Typical ditch — channel ~ ẋ = 2' wide

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8 %

Drainage Class: Well

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): ______

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? **Yes** No (Circle)
Wetland Hydrology Present? **Yes** No
Hydric Soils Present? **Yes** No

(Circle)
Is this Samplig Point Within a Wetland? **Yes** No

Remarks: Typical ditch w/some areas of PSS.

Approved by HQUSACE 3/92

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

30

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: J Dawson and A Hevle

Date: 9/21/01
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~31-2~~ 30
Transect ID:
Plot ID: Swale (west)

/ Photo 2-1, 2

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL
2. Rumex triang.	H	OBL
3. Polygonum lapathifolium	H	OBL
4. Epilobium ciliatum	H	FACW
5. Salix amygdaloides	T	FACW
6. Phalaris arundinacea	H	OBL
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 83%

Remarks: Swale dominated by Typha. One small S. amyd. Poa + Phleum dominate surrounding areas that are grazed by horses. Burning of adjacent sagebrush done annually (says Jack M'Intire, owner)

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0-12 (in.)
Depth to Free Water in Pit: — (in.)
Depth to Saturated Soil: 0 (in.)

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

Remarks: Swale fed by irrg. ditch. Ditch is flowing + spreads out w/in the WL — no defined channel

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8%

Drainage Class: Well

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): ____

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? **Yes** No (Circle)
Wetland Hydrology Present? **Yes** No
Hydric Soils Present? **Yes** No

(Circle)
Is this Sampling Point Within a Wetland? **Yes** No

Remarks: Irrig. ditch loses it's banks + created a large WL in the bottom of a swale

Approved by HQUSACE 3/92

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

(31)

Project/Site: GS 550	Date: 9/18/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Dawson and A. Hawk	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: 32-1(51)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL 10%	9.		
2. Lemna minor	X	OBL 45%	10.		
3. Salix amygdaloides	S	FACW 10%	11.		
4. Eleocharis palustris	H	OBL 5%	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Typical lagoon - Surrounding area B. inermis, Kochia + Lactuca

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-24	(in.)
Depth to Free Water in Pit:	–	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Typical lagoon

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - OBL/FACW dominants, hydrology.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Typical lagoon w/pockets of Typha + Eleocharis —. one small Peachleaf willow

(32)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: Dawson and Hess

Date: 9/21/01
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~SP3~~
Transect ID: (32)
Plot ID: North (west) & Photo 2-3

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Agrostis stolonifera	H	FACW
2. Salix exigua	S	OBL
3. Scirpus microcarpus	H	OBL
4.		
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Typical fringe 2' wide each. Most exigua is dead — too sprayed

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0-12 (in.)
Depth to Free Water in Pit: — (in.)
Depth to Saturated Soil: 0 (in.)

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

Remarks: Small irrig. ditch

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No P,T

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)
Wetland Hydrology Present?	(Yes)	No	
Hydric Soils Present?	(Yes)	No	

Is this Samplig Point Within a Wetland? (Yes) No (Circle)

Remarks: Small ditch – typical

Approved by HQUSACE 3/92

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

33

Project/Site: US 550	Date: 9/14/01
Applicant/Owner: CDOT	County:
Investigator: Dawson and Hawk	State:
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~SF2~~ 33
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Irrig. Ditch

Photo #20

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Agrostis stolonifera	H	FACW	9. Salix exigua	S	OBL
2.* Scirpus validus			10. Phleum pratense	H	FACW
3. Eleocharis palustris	H	OBL	11. Scirpus microcarpus	H	OBL
4.* Juncus torreyi			12.* Typha latifolia		
5.* Echinochloa crusgalli			13.		
6.* Epilobium ciliatum			14.		
7.* Equisetum arvense			15.		
8. Phalaris arundinacea			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 80

Remarks: Typical irrig. ditch - upland banks contain Verbascum thapsus, Helianthus annuus, and other weedy forbs. WL banks vary from 1-4' in width (each). Some Russian olives along ditch and pockets of dense S. exigua

* Not dominant

also B. inermis, Asclepias species, Cirsium arvense

HYDROLOGY

✓ Recorded Data (Describe in Remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary Indicators:
✓ Aerial Photographs	✓ Inundated
___ Other	✓ Saturated in Upper 12 Inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	___ Sediment Deposits
Depth of Surface Water: 0-24 (in.)	___ Drainage Patterns in Wetlands
Depth to Free Water in Pit: — (in.)	Secondary Indicators (2 or more required):
Depth to Saturated Soil: 0 (in.)	___ Oxidized Root Channels in Upper 12 Inches
	___ Water-Stained Leaves
	___ Local Soil Survey Data
	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: Typical ditch - channel ~4' to 6' wide (average)

SOILS

Map Unit Name (Series and Phase): Fallday loam 3-8% Drainage Class: Wet

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit – OBL/FACW Veg + hydrology

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks: Typical irrig. ditch – channel flowing ~6' wide (avg) w/WL banks varying from 1-4 feet wide. Most Adjacent upland areas are weedy. Very little shrub cover in most areas.

$\bar{X} \simeq 2'$

Approved by HQUSACE 3/92

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

(34)

Project/Site: US 550	Date: 9/19/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawn and Herb	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~1 + 10~~
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: 34
Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Plot ID: Pond

✓ Photo #7

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Carex vulpinoidea	H	OBL 30%	9.		
2. Scirpus microcarpus	H	OBL 30%	10.		
3. Phalaris arundinacea	H	OBL 5%	11.		
4. Pondweed	A	OBL	12.		
5. Agrostis stolonifera	H	FACW 10%	13.		
6.* Echinochloa crusgalli			14.		
7.* Sagitarius sp.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Pond w/aquatics covering ~ 15% of open water and a narrow emergent fringe. Banks (non-WL) are: A. speciosa, E. angustifolia, B. inermis, M. officinalis, S. amyd.
* Not dom

HYDROLOGY

✓ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ___ Aerial Photographs
- ✓ Other USGS topo
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	4-6'	(in.)
Depth to Free Water in Pit:	—	(in.)
Depth to Saturated Soil:	0	(in.)

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

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

Remarks: Pond w/irrig. ditch feeding it. Pond appears to be >4' deep. Outlet ditch has a pump on it — no irrig. ditch leaves the pond — just seepage from pump + dam, on south side. A culvert drains some water to west, but outlet not observed.

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - AMR at DBL/FACW dams

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Assumed

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Pond w/fringe ~ 5' average width. Several R. olivi + Peach leaf willows along banks. Ducks observed. Pond likely used for irrigation purposes.

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

(35)

Project/Site: WJ 550	Date: 9/18/01
Applicant/Owner: CDOT	County: La Plata
Investigator: S. Dawson and A. Herb	State: Co
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~54~~ 35
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID: S. Lagoon
(If needed, explain on reverse.)	

Photo #21

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL 50%	9.		
2. Lemna minor	A	OBL 60%	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: Lagoon w/Typha along edges + Lemna on open water. Perimeter of WL is dominated by C. arvense + B. inermis

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-24 (in.)
Depth to Free Water in Pit:	— (in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Standing water in lagoon

SOILS

Map Unit Name (Series and Phase): Falfe clay loam, 3-8%. Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - OBL veg + hydrology

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Typical sewage lagoon w/ WL veg along edges. Surrounded by thistle + brome, + adjacent to a hay field

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

(36)

Project/Site: US 550	Date: 9/19/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Herb	State: CO
Do Normal Circumstances exist on the site? Yes / No	Community ID: ~~36~~ 36
Is the site significantly disturbed (Atypical Situation)? Yes / No	Transect ID:
Is the area a potential Problem Area? Yes / No	Plot ID: Pond
(If needed, explain on reverse.)	

✓ p 1, 2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL	9.		
2.* Polygonum lapathifolium			10.		
3. Pond weed	A	OBL	11.		
4. Sagittaria	A	OBL	12.		
5.* Echinochloa crusgalli			13.		
6.* Hordeum jubatum			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Narrow emergent fringe of aquatics covering ≈ 50% of open water. Banks are dominated by Knotweed, Asclepias speciosa, Tansy mustard, Amaranth w/some Cirsium arvense, alfalfa; H. annuus + western milkweed *=Not dom

Disturbed upland

HYDROLOGY

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

Field Observations:

Depth of Surface Water:	0-48	(in.)
Depth to Free Water in Pit:	—	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Pond fed by irrig ditch.

SOILS

Map Unit Name (Series and Phase): Fulfa clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - obs/from dams, hydrology

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Assumed

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Large pond (~ 3/4 acre) w/aquatic veg and emergent banks. Banks average ~ 4' in width. Surrounding area disturbed + weedy. Mallard ducks obs. Pump located on dam - apparently used for irrigation purposes

(37)

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: Dawson and Hart	Date: 9/18/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: (37) Transect ID: Plot ID:

p 22

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Scirpus microcarpus	H	OBL 50	9.		
2. Phalaris arundinacea	H	OBL 5	10.		
3. Aster	H	FAC-OBL 5	11.		
4. Agrostis stolonifera	H	FACW 30	12.		
5. Carex sp	H	FACU-OBL 5	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 80-100

Remarks: 3' fringe wetland (1+2) + 2' water
Irrigated field
Dead willow on 2%

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 12 (in.)

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

Depth to Saturated Soil: ______ (in.)

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

Remarks: Irrigation Ditch WL within banks. 2' channel

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No Pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks:

Approved by HQUSACE 3/92

(38)

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

Project/Site: US 550	Date: 9/18/91
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Herb	State: Co

Do Normal Circumstances exist on the site?	(Yes) No	Community ID: 38
Is the site significantly disturbed (Atypical Situation)?	Yes (No)	Transect ID: ~~I~~
Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes (No)	Plot ID:

/ p18, 19

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Phalaris arundinacea	H	OBL 70	9.		
2. Scirpus microcarpus	H	OBL 10	10.		
3. Agrostis stolonifera	H	FACW 5	11.		
4. Typha latifolia	H	OBL 2	12.		
5. Salix exigua	S	OBL 5	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Salix exigua mostly dead - probably sprayed
2nd ditch Phar
Mostly bordered by Phar on ridge each side
wetland veg within banks.

2 Ditches on (612) are non-wetland = no predominance of hydrophytes
Wetland 1.5' each side

HYDROLOGY

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

Remarks: Irrigation channel, water surface 4'
2nd ditch still water, low at road] ~~both water active~~ to North
~~3rd ditch~~

on 612 Ditches water active - not WL.

SOILS

Map Unit Name (Series and Phase): Falfa Clay Loam 3-1%

Drainage Class: well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

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

39

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Hess	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~24~~ 39
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Ditch - west

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Phalaris arundinacea	H	FACW	9.		
2. Eleocharis palustris	H	OBL	10.		
3. Polygonum lapathifolium	H	OBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: H. jubatum along edges —

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

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

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Inlet to pond (WL 7-4) - small ditch from irrigated field

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)
Wetland Hydrology Present?	(Yes)	No	
Hydric Soils Present?	(Yes)	No	

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks: Small ditch/channel feeding WL 7-4. Irrigation run off/overflow

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

(40)

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Dewan and B. Neel	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~T-5~~ (40)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Lagoon - west

Photo # 7

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL	9.		
2. Polygonum lapathifolium	H	FBL	10.		
3. Phalaris arundinacea	H	FBL	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: Perimeter Latnca, Clarkense

Typical lagoon

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-24	(in.)
Depth to Free Water in Pit:	–	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Sewage lagoon ~ 40% open water

SOILS

Map Unit Name (Series and Phase): Falfa clay Ivan 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)
Wetland Hydrology Present?	(Yes)	No	
Hydric Soils Present?	(Yes)	No	

Is this Sampling Point Within a Wetland? (Yes) No (Circle)

Remarks: Typical lagoon

Approved by HQUSACE 3/92

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

(41)

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Hart	State: CO
Do Normal Circumstances exist on the site? Yes (No)	Community ID: ~~24~~ (41)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID: Pond - west
(If needed, explain on reverse.)	

Photos #8, 9

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL	9.		
2. Alopecurus arundinacea	H	FBL	10.		
3. Polygonum lapathifolium	H	OBL	11.		
4. Hordeum jubatum	H	FACW*	12.		
5. Eleocharis cinque flora	H	OBL	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Hordeum along edges — Pond w/shallow area on upper end. Inlet WL area is disconnected (WL 7-6)

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-36	(in.)
Depth to Free Water in Pit:	—	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Small pond w/standing water

SOILS

Map Unit Name (Series and Phase): Fallon clay loam 3-8% Drainage Class: well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

		(Circle)		(Circle)
Hydrophytic Vegetation Present?	(Yes)	No	Is this Sampling Point Within a Wetland?	(Yes) No
Wetland Hydrology Present?	Yes	No		
Hydric Soils Present?	Yes	No		

Remarks: Small pond — likely used for irrigation
Wetland 7-3 crosses dam (ditch)

Approved by HQUSACE 3/92

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

42

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: COUT	County:
Investigator: Dawson and Hunt	State:
Do Normal Circumstances exist on the site? Yes (No)	Community ID: TB
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: 42
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Ditch-west

Photo #5, 6

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Phalaris arundinacea	H	OBL	9.		
2. Epilobium ciliatum	H	FACW	10.		
3. Typha latifolia	H	OBL	11.		
4. Scirpus pallidus	H	OBL	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Asclepias speciosa, B. inermis + chicory on edges of ditch.
WL = 3' x 2 fringe. Scirpus in area where ditch widens

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: Some areas saturated — ditch is not flowing
1' channel

SOILS

Map Unit Name (Series and Phase): Felt Mucky Loam 1-3% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)	
Wetland Hydrology Present?	Yes	No		
Hydric Soils Present?	Yes	No		
Is this Sampling Point Within a Wetland?	(Yes)	No	(Circle)	

Remarks: Typical ditch

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

(43)

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Hess	State: Co
Do Normal Circumstances exist on the site? Yes (No)	Community ID: ~~EE~~ (43)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Irrig. Pipe-west

Photo #4

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Phalaris arundinacea	H	90%	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks: Pocket of Phar at irrigation pipe junction (leaky?)
Surrounding area: B. inermis, C. arvense, Poa sp., whirled milkweed

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: No indicators — irrigation driven — water turned off on ~10/15

SOILS

Map Unit Name (Series and Phase): Felta clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? Yes (No)
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Normal circumstances do not exist due to lack of hydrology — irrigation water turned off.

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

(44)

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: Dawson and Hurd

Date: 10/23/01
County:
State:

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~1R5~~
Transect ID: (44)
Plot ID:
Ditch - east

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL	9.		
2. Agrostis stolonifera	H	FACW	10.		
3. Phalaris arundinacea	H	OBL	11.		
4.* Juncus torreyi			12.		
5. Juncus balticus	H	FACW	13.		
6. Carex lanuginosa	H	OBL	14.		
7.* Juncus articulatus			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Perimeter common plantain, C. arvense, Lactuca, Melilotus, Russian olive, mullein. Two parallel ditches.
* = Not dominant

HYDROLOGY

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

Field Observations:

Depth of Surface Water: — (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: 0 (in.)

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

Remarks: Typical ditches — water standing in larger one

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 1-3 %

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Typical ditches – 2'x2 wetland
3' channel

Approved by HQUSACE 3/92

(45)

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

Project/Site: WS 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawson and Hart	State: Co
Do Normal Circumstances exist on the site? (Yes) No	Community ID: 18-16
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: (45)
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Ditch - west

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Phalaris arundinacea	H	OBL	9.		
2. Agrostis stolonifera	H	FACW	10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Typical ditch 1'x2 WL, 1' channel

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: Ditch is wet but not flowing

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 1-3%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Typical ditch - narrow fringe wetlands

Approved by HQUSACE 3/92

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

(46)

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J. Dawson and A. Hess	Date: 10/23/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: 18-A Transect ID: (46) Plot ID: Roadside ditch-west

Photo #2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL	9.		
2. Eleocharis palustris	H	OBL	10.		
3. Echinochloa crusgalli	H	FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Roadside ditch and shallow swale. Perimeter dominated by B. inermis

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: Roadside ditch and shallow swale w/no outlet. Likely ponds irrigation overflow/runoff

SOILS

Map Unit Name (Series and Phase): Fallon clay loam 1-3 Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - assumed

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - asmd

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Roadside ditch / swale

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

(47)

Project/Site: U.S. 550	Date: 9/17/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Herb/Dawson	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~Herb~~ (47)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Plot ID: large swale (east side)

/ photos 5 and 6

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL 10%
2. Phalaris arundinacea	H	OBL 80%
3. Typha latifolia	H	OBL 2%
4. * Hordeum jubatum	H	
5.		
6.		
7.		
8.		
9. * Phleum pratense	H	
10. * Echinochloa crusgalli	H	
11. * Juncus balticus	H	
12. * Rumex sp.	H	
13. * Sagitaria sp.	H	
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Site is currently grazed. Hordeum is only along edges + Typha in lowest, wettest areas. Area along US 550 (east side) is dominated by P. arundinacea

* Not dominant — Sagitaria common in ponding area

HYDROLOGY

- / Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - ✓ Aerial Photographs
  - ___ Other
- ___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: Evidence of recent ponding — saturated to surface. Small ditch feeds the WL area — ditch not currently flowing

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8% Drainage Class: Wet

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

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-1		10YR 3/1	—	—	Clay loam; Numerous roots, fibrous
1-16		7.5YR 5/2	7.5YR 5/8	Numerous, small	Clay loam; Numerous roots to ~8"
		- >8" in depth areas of depletions (gray areas) become more numerous			

Hydric Soil Indicators:

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

Remarks: Soil pit near edge in stand of E. palustris, H. jubatum + E. cinereus. Wetter portions of the site have sulfidic odor. Some salts visible on exposed surfaces of the soil pit

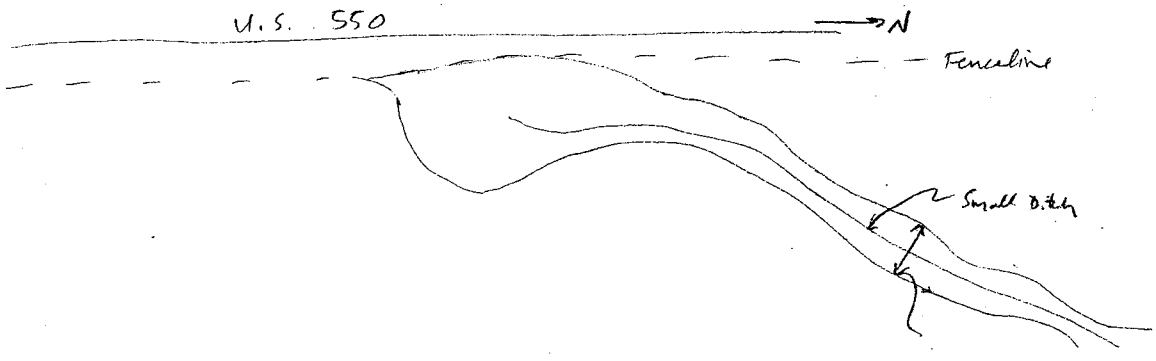
WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Swale in pasture w/small ditch likely responsible for WL hydrology. Water spreads as it approaches US 550. Immediately south of this WL an irrig. (irrig.) return flow pipe creates a ditch WL (~1-3cfs).

Approved by HQUSACE 3/92



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

(48)

Project/Site: U.S. 550	Date: 9/17/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Herb Dawson	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~1~~ (48)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Plot ID: Ditch (east side)

✓ Photo #7

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Phalaris arundinacea	H	OBL 100%	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Phalaris monoculture along both sides of a flowing irrigation ditch.

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 0-10 (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Irrigation ditch flowing (~2-3 cfs) — source appears to be a return flow pipe(s) at the NW corner of an alfalfa field

SOILS

Map Unit Name (Series and Phase): Falfa Hay Ivan 3-8% Drainage Class: Wet

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

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
No pit - hydric soils assumed due to presence of OBL dominant					

Hydric Soil Indicators:

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

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)		(Circle)
Wetland Hydrology Present?	(Yes) No		
Hydric Soils Present?	(Yes) No Assumed	Is this Sampling Point Within a Wetland?	(Yes) No

Remarks: Narrow ditch WL from irrigation flows — ditch crosses under U.S. 550 ~220 feet south of WL 18-1. Ditch located on roadside on edge of alfalfa field.

559 - out of town
539 - OK
647 - OK (knock) Work - at home

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

(49)

Project/Site: US 550	Date: 9/17/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Pawson and A. Hamb	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~18-3~~
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: (49)
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Continuation of 18-2

✓Photo #8 (north end)

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Phalaris arundinacea	H	OBL
2. Typha latifolia	H	OBL
3. Juncus balticus	H	OBL
4.		
5.		
6.		
7.		
8.		
9. * Melilotus officinale	H	
10. * Phleum pratense	H	
11. * Carex sp.	H	
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: M. officinale along edges — not w/in WL. All WL veg contained w/in banks of ditch — most of channel is vegetated
* Not dominant

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:
- Depth of Surface Water: 0-10 (in.)
- Depth to Free Water in Pit: — (in.)
- Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Ditch flowing ~10" deep ~4' wide

SOILS

Map Unit Name (Series and Phase): Fa/Fe clay loam 3-8% Drainage Class: well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit – OBL dominants

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)		(Circle)
Wetland Hydrology Present?	(Yes) No		
Hydric Soils Present?	(Yes) No Assumed	Is this Sampling Point Within a Wetland?	(Yes) No

Remarks: Irrig. ditch along US 550 – water flowing. Continuation of WL 18-2.

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

(50)

Project/Site: US 550	Date: 9/17/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Hess + Dawson	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~19~~ 2
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: (50)
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Leaky ditch/swale

✓ 2 Photos

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Agrostis stolonifera	H	FACW 50%	9. *Cirsium arvense		
2. *Carex #1		2%	10. *Phleum pratense		
3. Eleocharis palustris	H	OBL 5%	11. *Rumex sp.		
4. Juncus balticus	H	OBL 10%	12. *Common plantain		
5. Typha latifolia	H	OBL 7%	13. *Epilobium ciliatum		
6. *Bidens sp.		4%	14. *Poa sp.		
7. Hordeum jubatum	H	FAC 15%	15.		
8. *Plantago lanceolatum		2%	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Typha in lowest/wettest areas. WL veg following areas wet from leaky ditch and flows from east side of US 550. SE "arm" of WL contains Typha under recently dead (w/in 2-3 yrs) junipers + pinon. Mullein + horseweed along edges - outside WL boundary.

*Not dominant

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-4	(in.)
Depth to Free Water in Pit:	—	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: ~ 75% of area is inundated. Water source is leaky ditch — in two areas + flows from east side of US 550 (swale). At least main one of the leaks appears to be recent (due to recently dead junipers/pinon w/cattail understory). The ditch contains No obvious breeches — seeping beneath banks.

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8% Drainage Class: Well

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit – OBL/FACW dom's, evidence of hydrology

WETLAND DETERMINATION

550.

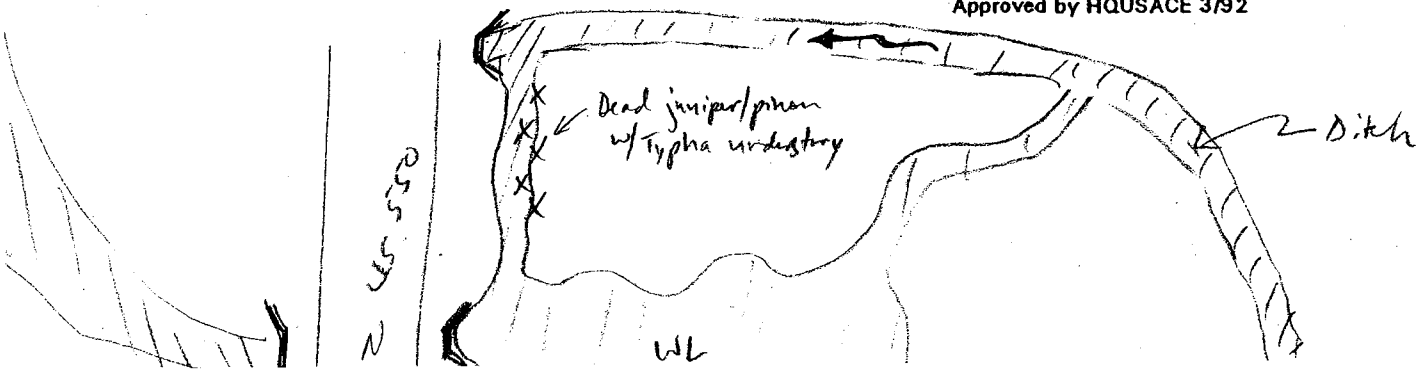
Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

and flow from east Site (Circle)

Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Swale ponding leaky ditch water / Ditch leaking in two main areas – WL narrows up to each leak. WL continues under U.S. 550 in natural swale (to east)

Approved by HQUSACE 3/92



(51)

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

Project/Site: US 550	Date: 9/18/01
Applicant/Owner: CDOT	County: La Plata
Investigator: S Dawson and A. Hamb	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: (51)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: ~~1927~~
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	

✓ p. 17

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Carex vulpinoidea	H	OBL 10
2. Eleocharis palustris	H	OBL 20
3. Juncus balticus	H	FACW 50
* Phleum pratense	H	2
5. Typha latifolia	H	OBL 5%
6. * Poa pratensis	H	2
7. * Epilobium ciliatum	H	2
8. * Rumex	H	

Dominant Plant Species	Stratum	Indicator
9. Hordeum jubatum	FAC*	5
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: * Not dominant

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	1-2 (in.)
Depth to Free Water in Pit:	____ (in.)
Depth to Saturated Soil:	____ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: All has standing water.
Owner says that gophers have made hole/leaks in the canal on SW side across road, which is source of inundation. Has persisted long enough to kill trees there.

SOILS

Map Unit Name (Series and Phase): Faifa clay loam 3-8%

Drainage Class: Wet

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - inundated

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Connects to 19-2 thru culvert

Approved by HQUSACE 3/92

52

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

Project/Site: US 550	Date: 9/18/01
Applicant/Owner: CDOT	County: La Plate
Investigator: J. Dawson and A. Hess	State: CO

Do Normal Circumstances exist on the site?	Yes	No	Community ID: 52
Is the site significantly disturbed (Atypical Situation)?	Yes	No	Transect ID:
Is the area a potential Problem Area?	Yes	No	Plot ID:
(If needed, explain on reverse.)			

p 16

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Polygonum amphibium	H	OBL
2. Typha latifolia	H	OBL
3. Typha latifolia	H	OBL
4. Eleocharis palustris	H	OBL
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 100

Remarks: ~ 35% of pond has emergent vegetation.

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 1'+ (in.)

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

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Sewage lagoons. Surface of water is green scum

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 3-8%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

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

(53)

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J Dawson and B. Hawk	Date: 9/18/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: (53) Transect ID: ~~128~~ Plot ID:

✓ photo 15

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Carex vulpinoidea	H	OBL 35	9.		
2. Fleerhaw Alopecuris	H	OBL 30	10.		
3. Juncus balticus	H	20	11.		
4. Typha angustifolia	H	OBL 5%	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Fringe of irrigation ditch. within bank, mostly. 1-3' wide each side Average 1.5' each side. + Typha in ditch bottom, ~30% of length

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: 12+ (in.)

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

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Irrigation ditch. Water ~~stagnant~~ not moving. Flows into pond. Water surface ~ 4' but is being used to irrigate meadow

SOILS

Map Unit Name (Series and Phase): Faldy loam 2-4%

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit. Mottles evident in soil about 1ft from ~~ditch~~ cleaning ditch

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Connects to 19-2 thru culvert

Approved by HQUSACE 3/92

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

(54)

Project/Site: US 550	Date: 9/17/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Hess + Dawson	State: Co
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~19~~
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: (54)
Is the area a potential Problem Area? Yes (No)	Plot ID: Hillside Seep (west)
(If needed, explain on reverse.)	

Photo # 12

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Agrostis stolonifera	H	FACW 20%	9.		
2. Phalaris arundinacea	H	OBL 10%	10.		
3. Juncus balticus	H	OBL 15%	11.		
4. Eleocharis palustris	H	OBL 15%	12.		
5. Caraway	H	NL 15%	13.		
6. Unk. Aster	H	FAC-OBL 5%	14.		
7* Unk Carex #1			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 87

Remarks: Aster is generally along edges, Phalaris is primarily at top of seep. Cocklebur + C. arvense along edges (outside WL bndry). Wettest areas are E. palustris + J. balticus.

* Not dominant

HYDROLOGY

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

Field Observations:

Depth of Surface Water:	0-3	(in.)
Depth to Free Water in Pit:	—	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Seep/Spring. Saturates entire WL, most is inundated. No defined flowing channel w/in WL bndry — water is well spread over entire area.

SOILS

Map Unit Name (Series and Phase): Ultic Termorthents / Ustic Haplargids 12-60%.
Drainage Class: Well — somewhat excessively
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes (No)

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit — OBL/FACW dominants
Area very cobbly (large to medium)

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Hillside steep just west of US 550. Very little soil present but good vegetative cover. No defined channel — water is well spread. Hillside 25-30° slope (estimated)

Approved by HQUSACE 3/92

(55)

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

Project/Site: WS 550 Applicant/Owner: COUT Investigator: J. Doman and A. Hess	Date: 7/18/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: (55) Transect ID: ~~US~~ Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Typha latifolia	H	OBL
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).

Remarks:

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: _____(in.)

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

Depth to Saturated Soil: _____(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Roadside Sewage lagoon. Not examined up close

SOILS

Map Unit Name (Series and Phase): Will loam 3-8%

Drainage Class: Wet

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit — OBL veg and by analogy

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

(Circle)
Is this Samplig Point Within a Wetland? Yes No

Remarks:

Approved by HQUSACE 3/92

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

(56)

Project/Site: US 550	Date: 9/17/01
Applicant/Owner: CDOT	County: La Plata
Investigator: Dawnmarie Herb	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID: 19-4
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: (56)
Is the area a potential Problem Area? Yes (No)	Plot ID: Hillside spring (west)
(If needed, explain on reverse.)	

p. 13,14

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Caraway	H	NL 70%	9.		
2. Typha latifolia	H	OBL 10%	10.		
3. Rumex sp.		<1%	11.		
4. Agrostis stolonifera		2%	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 50

Remarks: Hillside spring dominated by Caraway. Perimeter areas (outside wetland boundary) dominated by Quercus gambelii, Chinese elm, Rhus trilobata, rabbitbrush w/cocklebur + thistle and some bindweed + service berry.

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-8	(in.)
Depth to Free Water in Pit:	—	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Hillside spring w/ high flow (est. 7-8 cfs). Upper reach is wide, but narrows into a more defined channel down-gradient. Widens again to 30 ft west of study area and continues downhill toward Animas R.

Owner says that rancher across river has water rights

Water is mostly collected into a likely man-made circular structure + then seeps through the "dam" into the area below

SOILS

Map Unit Name (Series and Phase): Ustic torriorthents - Ustic haplargids 12-60% with Irvam 3-8%

Drainage Class: Well - somewhat excessively

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup):

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - OBL/FACW veg. + hydrology
Very cobbly (large to medium).

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

(Circle)
Is this Sampling Point Within a Wetland? (Yes) No

Remarks: Hillside spring dominated by WL forbs. Upper reach is wide with good flows → WL narrows below source of water.

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

(57)

Project/Site: US 550	Date: 10/23/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Dawson and A. Herb	State: Colorado
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~34~~ (57)
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	Seeps - west

Photos

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Salix exigua	S	OBL	9.		
2. Salix lasiandra	S	OBL	10.		
3. Nasturtium officinale	H	OBL	11.		
4. Veronica americana	H	OBL	12.		
5. Poa sp.	H	FACW-FAC	13.		
6. Typha latifolia	H	OBL	14.		
7. Populus deltoides	T	FACW*	15.		
8. Populus angustifolia	T	FAC*	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 87 %

Remarks: Numerous hillside seeps feeding floodplain terrace. Several stands of willows + cottonwoods. Most cottonwoods along edges. Several small pools of water - all dominated by aquatics. Area is grazed by horses

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0-36	(in.)
Depth to Free Water in Pit:	-	(in.)
Depth to Saturated Soil:	0	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Hillside seeps feed a series of shallow pools along the Animas River

SOILS

Map Unit Name (Series and Phase): Ustic Torriorthents – Ustic haplargids — Drainage Class: well – somewhat excessively

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

			(Circle)
Hydrophytic Vegetation Present?	(Yes)	No	
Wetland Hydrology Present?	Yes	No	
Hydric Soils Present?	Yes	No	
Is this Sampling Point Within a Wetland?	(Yes)	No	

Remarks: Series of small seeps on floodplain terrace of Animas River. Small trout pond at toe of slope (of mesa). Many large cottonwoods and some fairly large stands of willow.

(65) (58)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: J. Dawson and A. Herb

Date: 9/19/01
County: La Plata
State: Co

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~6-5/Seep~~
Transect ID: (68)
Plot ID: Seep (west)

/ Photo 1-13

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Carex lanuginosa	H	OBL
2. Nasturtium officinale	H	OBL
3. Agrostis stolonifera	H	FACW
4. Phleum pratense	H	FACU
5. Typha latifolia	H	OBL
6. Eleocharis palustris	H	OBL
7. Pondweed	A	OBL
8. Bidens sp.	H	FACW-OBL
9. Salix exigua	S	OBL
10.		
11.		
12. Populus sp.	In adjacent areas -	
13. Acer negundo	Mostmature + large	
14. Alnus incana		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 89 %

Remarks: Large WL w/ cottonwoods, Chokecherry + alders along edges. Center of WL is aquatic bed dominated by pondweed. Outlying areas are dominated by Carex + Agrostis, w/the wetter areas dominated by Typha

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0-48 (in.)
Depth to Free Water in Pit: – (in.)
Depth to Saturated Soil: 0 (in.)

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

Remarks: Source of water is primarily hillside seep (at toe of slope) and some irrig return flow (enters on south end). Open water areas assumed to be ~4' deep - Most other areas are sat. to surface

SOILS

Map Unit Name (Series and Phase): Ustifluvents-Ustorthents-Ustic haplargids [illegible] loam

Drainage Class: – Somewhat excessively drained, Somewhat poorly drained

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): ______

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Large WL w/ aquatic bed, emergent + scrub/shrub communities. Mature cottonwoods and Box elders are on all sides. WL located adjacent to Animas River but not likely hydrologically connected.

Approved by HQUSACE 3/92

(59)

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J. Dawson and A. Herb	Date: 9/19/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~to-47(sm)~~ Transect ID: (59) Plot ID: Seep (east)

Photo 1-6 (Animas)
Photos 1-14, 15 W. of U.S. WLS

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Agrostis stolonifera	H	FACW	9. Polygonum lapathifolium	H	OBL
2. Scirpus americanus	H	OBL	10. Juncus articulatus	H	OBL
3. Hordeum jubatum	H	FACW	11. Eleocharis palustris	H	OBL
4. Typha latifolia	H	OBL	12. Echinochloa crusgalli	H	FACW
5. Scirpus validus	H	OBL	13. Nasturtium officinale	H	OBL
6. Carex lanuginosa	H	OBL	14. Veronica americana	H	OBL
7. Bidens sp.	H	FACW-OBL	15.		
8. Epilobium ciliatum	H	FAC	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Hill side seep — 100% vegetative cover. Typha in wettest areas and pockets of Nasturtium in wet areas also. Upland areas dominated by wild licorice + M. [illegible]

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available Field Observations: Depth of Surface Water: 0-16 (in.) Depth to Free Water in Pit: — (in.) Depth to Saturated Soil: 0 (in.)	Wetland Hydrology Indicators: Primary Indicators: ✓ Inundated ✓ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: Seep @ toe of slope on the Animas floodplain. Most areas inundated 2-10" other areas saturated to surface. Irrigation ditch return flow also contributes markedly to the hydrology

SOILS

Map Unit Name (Series and Phase): Ustic haplargids - Ustic torriorthents Tefton loam

Drainage Class: somewhat excessively drained / somewhat poorly drained

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): ______

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	Is this Sampling Point Within a Wetland? (Yes) No (Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	

Remarks: Very large + diverse WL situated on The Animas River floodplain Frogs observed.

Approved by HQUSACE 3/92

59-A
Wetland Soil pit

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

Project/Site: US 550	Date: 11/12/03
Applicant/Owner: CDOT	County: La Plata
Investigator: J Dawson, H. Cornelisse	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID:
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: ~~7?A~~ 59A
Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Plot ID:

Wetland ~~F8~~ 59

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Agrostis stolonifera	H	FACW	9.		
2. Scirpus validus	H	OBL	10.		
3. Hordeum jubatum	H	FAC	11.		
4. Muhlenbergia asperifolia	H	FACW+	12.		
5. Juncus torreyi	H	FACW+	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). OBL

Remarks: Plants ± ~~[illegible]~~ boundary very gradual on north abrupt (this line) on ~~[illegible]~~ south

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 1/2 (in.)

Depth to Free Water in Pit: 1" (in.)

Depth to Saturated Soil: 0 (in.)

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

Remarks: Mostly has surface water
Seepage area at ~~[illegible]~~ base of slope. WL parallels base of ~~[illegible]~~ slope.

SOILS

Map Unit Name (Series and Phase): Tedim loam

Taxonomy (Subgroup): ______

Drainage Class: ______

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR 4/2	None		Films, SiL
6-8+		10YR 4/2	~~7.5~~ 2.5YR 4/6	Common, large	SCL

Hydric Soil Indicators:

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

Remarks: Pit in Grazing Swale on ~~[illegible]~~ edge

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)
Wetland Hydrology Present?	(Yes)	No	
Hydric Soils Present?	(Yes)	No	

(Circle)

Is this Samplig Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

59-B
upland soil pit

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

Project/Site: 45 550
Applicant/Owner: CDOT
Investigator: J. Dawson, K. Comstock

Date: 11/12/03
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID:
Transect ID: 25-B 55B
Plot ID:

Animas River floodplain

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Muhlenbergia asperifolia	H	FACW+
2. Glyceria sp.	H	FAC-
3. Hordeum jubatum	H	FAC
4. Rorippa	H	FACW
5. Chenopodium album	H	FACU
6. Taraxacum officinale	H	FACU+
7. Chicory	H	NL
8. Plantago lanceolata	H	FACU

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 25

Remarks: Weedy meadow adjacent to wetland. Somewhat transitional. Not currently grazed, but has old cow pies.
Gradual boundary.

HYDROLOGY

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

Field Observations:

Depth of Surface Water: None (in.)
Depth to Free Water in Pit: 14" None (in.)
Depth to Saturated Soil: 16 (in.)

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

Remarks: No Indicators.

SOILS

Map Unit Name (Series and Phase): Tefton loam

Taxonomy (Subgroup): ______

Drainage Class: ______

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12		7.5YR 4/3	None		CL

Hydric Soil Indicators:

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

Remarks: Pit is mixed by [illegible], about 50 feet east of ~~[illegible]~~ 57A

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes (No)	(Circle)
Wetland Hydrology Present?	Yes (No)	
Hydric Soils Present?	Yes (No)	

Is this Sampling Point Within a Wetland? (Circle) Yes (No)

Remarks:

Approved by HQUSACE 3/92

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

6U

Project/Site: US 550 Applicant/Owner: CDOT Investigator: Dawson and Herb	Date: 9/19/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~6-2~~ Transect ID: (6U) Plot ID: Irrig. Ditch (east)

/ Photo 1-5

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL	9.		
2. Echinochloa crusgalli	H	FACW	10.		
3. Agrostis stolonifera	H	FACW	11.		
4. Salix exigua	S	OBL	12.		
5. Juncus articulatus	H	OBL	13.		
6. Juncus torreyi	H	FACW+	14.		
7. Hordeum jubatum	H	FAC+	15.		
8. Rumex crispus	H	FACW	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Non-WL banks: Chickory, plantago, Trifolium, Curly cup gumweed, WL banks ~ 1/2' each side

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0-8 (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: 0 (in.)

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

Remarks: Small ditch ~1' channel

SOILS

Map Unit Name (Series and Phase): Scully gravelly loam 0-3%

Drainage Class: Well-drained

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup):

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - clay soil obvious

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes No (Circle) — Yes circled

Wetland Hydrology Present? Yes No — Yes circled

Hydric Soils Present? Yes No — Yes circled

Is this Sampling Point Within a Wetland? (Circle) Yes No — Yes circled

Remarks: Small ditch w/one short branch. Channel is ~1' wide and WL banks are ~1/2' each. Some areas that are regularly flooded adjacent to ditch contain some WL veg (Eleocharis) but also contain upland veg (chickory + clover) — these areas not included

Approved by HQUSACE 3/92

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

(61)

Project/Site: US 550	**Date:** 9/19/01
Applicant/Owner: CDOT	**County:** La Plata
Investigator: J. Dawson and A. Herb	**State:** Co

Do Normal Circumstances exist on the site?	(Yes) No	**Community ID:** ~~T3~~ 61
Is the site significantly disturbed (Atypical Situation)?	Yes (No)	**Transect ID:**
Is the area a potential Problem Area?	Yes (No)	**Plot ID:**
(If needed, explain on reverse.)		Hillside Seeps

photos 8, 9, 10

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Juncus articulatus	H	OBL	9. Juncus baltricus	H	FACW
2. Typha latifolia	H	OBL	10. * Cyperus		
3. Agrostis stolonifera	H	FACW	11.		
4. Lidens sp.	H	FACW-OBL	12.		
5. Eleocharis palustris	H	OBL	13.		
6. Sphagnum sp.			14.		
7. * Aster			15.		
8. Epilobium ciliatum	H	FACW	16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 86%

Remarks: Area is hummocky + grazed in drier areas. Wettest area is a floating mass dominated by J. baltricus (~15' diameter).
* Not dominant

HYDROLOGY

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

Field Observations:

Depth of Surface Water:	0-12 (in.)
Depth to Free Water in Pit:	— (in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: WL very hummocky — pockets of open water to 12" deep. Floating mass appears to be spring/seep source

SOILS

Map Unit Name (Series and Phase): Ustic [illegible] - ustic [illegible]

Drainage Class: well to somewhat excessively

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): ______

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12	O	Fibrous organic material	- mixed w/clay	-	2.5/N color
12+		2.5/N	—	—	Clay

Hydric Soil Indicators:

? <__ Histosol
__ Histic Epipedon
✓ Sulfidic Odor
✓ Aquic Moisture Regime
✓ Reducing Conditions
✓ Gleyed or Low-Chroma Colors ~12"

__ Concretions
__ High Organic Content in Surface Layer in Sandy Soils
__ Organic Streaking in Sandy Soils
__ Listed on Local Hydric Soils List
__ Listed on National Hydric Soils List
__ Other (Explain in Remarks)

Remarks: Soil w/high organic content to 1' in depth observed - one area ~ 15' in diameter is a floating mass. Most of the site has hummocks + surrounding areas appear to be clay/clay loam

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Hillside seep appears to be a possible fen — mostly organic soils w/hummocks. Site very diverse vegetatively + is located on a bench ~ 20' (vertical) above the creek. Other seeps are visible in similar positions in the landscape (outside study area)

Approved by HQUSACE 3/92

Some adjacent areas appear to be old wetlands without hydrology. Much larger area of hillside seep is located on same slope/bench upstream of fence

(62)

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

Project/Site: US 550	Date: 9/19/01
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Dawson and A. Herb	State: CO
Do Normal Circumstances exist on the site? Yes / No	Community ID: ~~1~~ 2
Is the site significantly disturbed (Atypical Situation)? Yes / (No)	Transect ID: (2)
Is the area a potential Problem Area? Yes / (No)	Plot ID:
(If needed, explain on reverse.)	Creek

P 1817

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Geocharis palustris	H	OBL
2. Polygonum amphibium	H	FACW+
3. Juncus articulatus	H	OBL
4. Scirpus americanus	H	OBL
5. Watercress	H	OBL
6. Polygonum lapathifolium	H	FACW+
7. Epilobium ciliatum	H	FAC
8. Rumex triang.	H	FACW
9. Bidens sp.	H	FACW - OBL
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Area grazed by cattle. Upland banks contain: musk thistle, tansey mustard & other weedy forbs. WL veg confined to fringe. common burdock, common mallow, amaranth,

Wetland fringe 1-8' wide Average 3-4?

HYDROLOGY

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

Field Observations:

Depth of Surface Water:	0-18 (in.)
Depth to Free Water in Pit:	— (in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Main channel running very strong ~6-8' wide.

SOILS

Map Unit Name (Series and Phase): Udic Haplargids - udic haplargids Drainage Class: well to somewhat excessively drained

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

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit — OBL dominant clay soil throughout

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)		(Circle)
Wetland Hydrology Present?	(Yes) No		
Hydric Soils Present?	(Yes) No — Assumed	Is this Sampling Point Within a Wetland?	(Yes) No

Remarks: Creek w/WL fringe. Area is grazed + is down-gradient of cattle feedlot. Surrounding area is very weedy

Approved by HQUSACE 3/92

63

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

Project/Site: US 550	**Date:** 9/19/01
Applicant/Owner: CDOT	**County:** La Plata
Investigator: J. Dawson and A. Herb	**State:** CO
Do Normal Circumstances exist on the site? Yes (No)	**Community ID:** ++
Is the site significantly disturbed (Atypical Situation)? Yes (No)	**Transect ID:** (63)
Is the area a potential Problem Area? Yes (No)	**Plot ID:** Seep (west)
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Polypogon monspeliensis	H	FACW 7%	9.		
2. Hordeum jubatum		<1%	10.		
3. Scirpus validus		1%	11.		
4. Rumex triang.		2%	12.		
5. Typha latifolia		<1%	13.		
6. Ranunculus sp.		1%	14.		
7. Eleocharis palustris	H	OBL 70%	15.		
8. Bidens sp.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Small seep — surrounding area grazed, disturbed + very weedy
Area grazed by cattle + Not dominant

HYDROLOGY

- ✓ **Recorded Data (Describe in Remarks):**
  - Stream, Lake, or Tide Gauge
  - ✓ Aerial Photographs
  - Other
- **No Recorded Data Available**

Field Observations:

Depth of Surface Water:	0-6 (in.)
Depth to Free Water in Pit:	— (in.)
Depth to Saturated Soil:	0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Small seep adjacent to creek — entire WL inundated
Water source is groundwater — likely a result of irrigation.

Some Feedlot runoff present

SOILS

Map Unit Name (Series and Phase): Urbi terriv-thents - urbi haplargids
Drainage Class: well to somewhat excessively
Field Observations
Taxonomy (Subgroup): _____ Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit - obs done
Soil very clayey.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No Assumed

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: Small seep - likely groundwater discharge as a result of irrigation. Sulfidic odor prevalent. Surrounding area very weedy + overgrazed

(64)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: Dawson and Herb

Date: 9/19/01
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? ~~Yes~~ (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~to-1 South~~ -105
Transect ID: (64)
Plot ID: Irrg. Ditch (east)

/ Photo #1-1

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Agrostis stolonifera	H	FACW
2. Phleum pratense	H	FACU
3. Rumex spring.	H	FACW
4. Echinochloa crusgalli	H	FACW
5. Eleocharis palustris	H	OBL
6. Bidens sp.	H	FACW-OBL
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 83

Remarks: Small ditch — 1/2' fringe each side
Banks (non-WL) contain: Rosa sp., chickory, Plantago, Aster, Red clover, amaranth, asparagus, A. speciosa

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0-4 (in.)
Depth to Free Water in Pit: — (in.)
Depth to Saturated Soil: 0 (in.)

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

Remarks: Small ditch - channel ~ 1' wide

SOILS

Map Unit Name (Series and Phase): Wit loam 1-3 %

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? (Yes) No - Assumed

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks: Small typical irrig. ditch — lower area is grazed + (near creek)

Approved by HQUSACE 3/92

* Photos 1-3 for WL
1-3 east
1-4 for 1-2 east

(65)

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: Dawson and Herb	Date: 9/19/01 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~65~~ ~~[illegible]~~ Transect ID: (65) Plot ID: Seep (east)

/ Photo 1-2

VEGETATION

Dominant Plant Species	Stratum	Indicator		Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL	30%	9.		
2. Rumex triang.	H	FACW	5%	10.		
3. Salix exigua	S	OBL	40%	11.		
4. Bidens sp.	H	FACW OBL	5%	12.		
5. Polygonum lapathifolium	H	OBL	5%	13.		
6. Agrostis stolonifera			1%	14.		
7. Hordeum jubatum			1%	15.		
8.				16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Salix in upper areas – climbing up hillside. Area has been recently grazed

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0-2 (in.)

Depth to Free Water in Pit: – (in.)

Depth to Saturated Soil: 0 (in.)

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

Remarks: Appears to be a small seep – not connected to any ditches

SOILS

Map Unit Name (Series and Phase): Wit loam 1-3 %

Drainage Class: Well

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	

Is this Samplig Point Within a Wetland? (Yes) No (Circle)

Remarks: Small seep at the bt slope

Approved by HQUSACE 3/92

(66)

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: S. Dawson and A. Merk

Date: 9/19/01
County: La Plata
State: CO

Do Normal Circumstances exist on the site? (Yes) No
Is the site significantly disturbed (Atypical Situation)? Yes (No)
Is the area a potential Problem Area? Yes (No)
(If needed, explain on reverse.)

Community ID: ~~64~~ (66)
Transect ID:
Plot ID: Seep (east)

2 photos / Photo #16, 17

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Carex lanuginosa	H	OBL
2. Salix exigua	S	OBL
3. Nasturtium officinale	H	OBL
4. Veronica americana?	H	OBL
5. Scirpus americanus	H	OBL
6. * Bidens sp.		
7. Eleocharis palustris	H	OBL
8. * Echinochloa crus-galli		
9. Typha latifolia	H	OBL
10. Scirpus validus	H	OBL
11. * Polygonum lapathifolium	H	
12. Agrostis stolonifera	H	FACW
13.		
14.		
15.		
16. * Not dominant		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: The wettest areas, along the road & other flowing channels at the toe of slope are dominated by Nasturtium officinale. The wettest areas on the floodplain are dominated by Carex & Typha.

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0-8 (in.)
Depth to Free Water in Pit: — (in.)
Depth to Saturated Soil: 0 (in.)

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

Remarks: Hillside seep along old road turns into a larger WL on the floodplain of the Animas River. Some flowing channels are visible - other areas are saturated to the surface and/or inundated

SOILS

Map Unit Name (Series and Phase): Ustic Torriorthents - Ustic Haplargids

Drainage Class: Well to somewhat excessively drained

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): ____________________

Profile Description:

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

Hydric Soil Indicators:

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

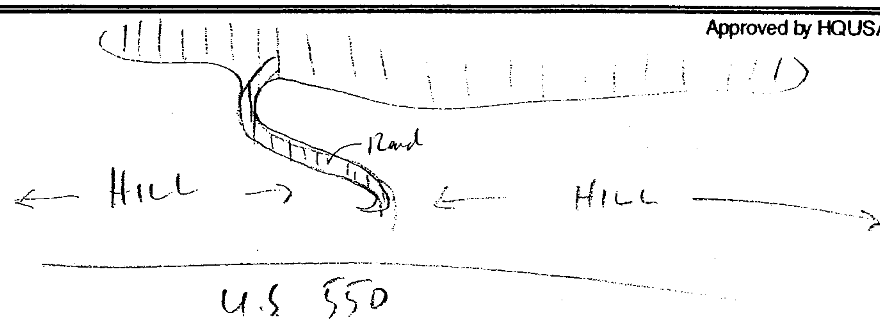
Remarks: No pit — OBL/FACW dom.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes circled) No (Circle)	
Wetland Hydrology Present?	(Yes circled) No	
Hydric Soils Present?	(Yes circled) No - Assumed	Is this Sampling Point Within a Wetland? (Circle) (Yes circled) No

Remarks: Seep likely created and/or enhanced when road was built. Portion of wc on floodplain has likely experienced increased flows. Hillside seep area follows roadbed down the hill to the floodplain. Floodplain area continues south of the old road.

Approved by HQUSACE 3/92



67A
Wetland

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: S. Dawson, K. Cornelisse	Date: 11/11/03 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? (Yes) No (If needed, explain on reverse.)	Community ID: Transect ID: W 67A Plot ID:

P 25, 24

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha	H	OBL	9.		
2. Phar	H	OBL	10.		
3. Euthamia	H	OBL	11.		
4. * Conyza canadensis			12.		
5. * Rumex triangulivalvis			13.		
6.			14.		
7.			15.		
8.			16.		

* Not Dominant

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Cattail wetland at edge of pond. Pit in phar. Euthamia and Phalaris Dom in the ways

HYDROLOGY

✓ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ✓ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: ✓ Inundated 90% of the to 6" ✓ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands
Field Observations: At pit Depth of Surface Water: ___ (in.) Depth to Free Water in Pit: 2" (in.) Depth to Saturated Soil: 0 (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: ~~Cat~~ Upper Edge of artificial pond, depression. Most of pond has grassy shore. Pit at edge of wetland in phar. Cattail area all inundated

Pond gets water from ditch (69)

SOILS

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

Field Observations

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

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2		10YR 3/2	None		LC Many roots
2-12+		10YR 4/3	None		LC

Hydric Soil Indicators:

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

Remarks: Pit located on outer perimeter because rest inundated. Perimeter soil may not have had time to develop hydric characteristics. Abrupt edge. Dominant veg obl and FACW. Assumed to be hydric

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks: Assume hydric soils because pit location probably not representative

Approved by HQUSACE 3/92

67-B
upland soil pit

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J. Dawson and K. Cornelius	Date: 11/11/03 County: La Plata State: Co
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ____ Transect ID: 67-B Plot ID: ____

Paired plot with 67A

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Dactylis glomerata	H	FACU	9.		
2. Agropyron repens	H	FACU	10.		
3. Chicory	H	NL	11.		
4. Plantago lanceolata	H	FACU	12.		
5. Grindelia squarrosa	H	FACU	13.		
6. Descurainia pinnata	H	NL	14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks: Pit in dense Agro. Grazed pasture, though no livestock present now

HYDROLOGY

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

Field Observations:

Depth of Surface Water: 0 (in.)

Depth to Free Water in Pit: 0 (in.)

Depth to Saturated Soil: 0 (in.)

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

Remarks: 67B
No indicators

SOILS

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

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1	A	2.5Y 3/1	None		L, thick organic mat/mix
1-12+		10YR 4/3	None		SL

Hydric Soil Indicators:

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

Remarks: Pit ~10 ft from GSA 1 1.
No

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes (No) (Circle)		(Circle)
Wetland Hydrology Present?	Yes (No)		
Hydric Soils Present?	Yes (No)	Is this Samplig Point Within a Wetland?	Yes (No)

Remarks:

Approved by HQUSACE 3/92

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

Project/Site: U 550 Applicant/Owner: CDOT Investigator: J. Dawson, K. [illegible]	Date: 11/11/03 County: [illegible] State:
Do Normal Circumstances exist on the site? Yes **No** (circled) Is the site significantly disturbed (Atypical Situation)? **Yes** (circled) No Is the area a potential Problem Area? Yes **No** (circled) (If needed, explain on reverse.)	Community ID: Transect ID: 68 Plot ID:

[illegible] - end of irrigation season

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha	H	OBL	9.		
2. Agst	H	FACW	10.		
3. [illegible] microcarpus	H	OBL	11.		
4. Pha[illegible]	H	OBL	12.		
5. Echinochloa	H	FACW	13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100%

Remarks: Vegetated ditch bottom 4' wide. Adjacent veg is roadside Brin, whitetop, Alsp, Vetch, Agre, [illegible] mown connecting ditch to N more shallow, cattle w/ rhizomes with sparsely vegetated bottom [illegible] on edge

HYDROLOGY

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

Remarks: Ground very moist at surface. Ditch [illegible] ditch [illegible] [illegible], [illegible] through culvert to pond. - higher WL 68 D c low area east of culvert and lower than culvert invert. Also continues to west the veg. sparser. Ditch ~ 2-3 [illegible] WL on both

SOILS

Map Unit Name (Series and Phase): Falfa clay loam

Taxonomy (Subgroup): ______

Drainage Class: ______
Field Observations
Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-8		10YR 3/2	7.5YR 4/6	5% [illegible]	CL
8-12		10YR 4/1	None		SiCL

Hydric Soil Indicators:

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

Remarks: Pit in cattail and [illegible] – "wettest" location

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks: GPS line [illegible]

Approved by HQUSACE 3/92

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

69-A
Wetland

Project/Site: US 550 Applicant/Owner: CDOT Investigator: S. Dawson, K. Cornelius	Date: 11/11/03 County: La Plata State: CO
Do Normal Circumstances exist on the site? **Yes** No Is the site significantly disturbed (Atypical Situation)? Yes **No** Is the area a potential Problem Area? Yes **No** (If needed, explain on reverse.)	Community ID: Transect ID: 69A Plot ID:

photo 18 Pond or Ditch (pond)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Saex	S	OBL	9.		
2. Juba	H	FACW	10.		
3. Agst	H	FACW	11.		
4. Plantago lanceolata	H	FACU	12.		
5. * Chicory	H		13.		
6. * Rosa	S		14.		
7.			15.		
8.			16.		

* Not dominant

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 75%

Remarks: A number of dead junipers, nearby, possibly killed by high groundwater. Dead juniper in a tightly defined zone, junipers above and below are all healthy. Saex extends beyond wetland associated with mesic shrubs.

Pond w 72B

Side cast mowing many plantago and chicory. Saex in ditch (edge)

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: ___ Inundated ✓ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ✓ Drainage Patterns in Wetlands Ditch
Field Observations: Depth of Surface Water: 0 (in.) Depth to Free Water in Pit: 0 (in.) Depth to Saturated Soil: 8 (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: Ditch 15" wide 3" deep ~~wetland~~ flowing
Ditch not visible on photo

SOILS

Map Unit Name (Series and Phase): [illegible] - [illegible]

Drainage Class: ______

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): ______

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR 3/2	5YR 4/5	2%. 1/8"	CL many cobbles

Hydric Soil Indicators:

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

Remarks: Pit located about 1 ft below ditch in drainage [illegible] and [illegible].
Soil very cobbly on surface on hillside

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes)	No	(Circle)
Wetland Hydrology Present?	(Yes)	No	
Hydric Soils Present?	(Yes)	No	

Is this Samplig Point Within a Wetland? (Circle) (Yes) No

Remarks: 72A pit
~~[illegible]~~

Approved by HQUSACE 3/92

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

C9B
upland

Project/Site: US 550	Date: 11/11/03
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Dawson K. Cornelisse	State: CO

Do Normal Circumstances exist on the site?	(Yes) No	Community ID:	
Is the site significantly disturbed (Atypical Situation)?	Yes (No)	Transect ID:	~~~~
Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes (No)	Plot ID:	C9B

photo 19

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Chicory	H	NL	9.		
2. Taraxacum officinale	H	FACU+	10.		
3. Plantago lanceolata	H	FACU	11.		
4. Sitanion hystrix	H	NL	12.		
5. Bromus tectorum	H	NL	13.		
6. Juniperus sp. (dead)			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks: Surrounding area Juniper forest
From wetland part of ditch has steeper gradient mostly Dactylis and Phleum in channel exp. few Agst from common in lower part about 72A Pipeline ROW

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: 0 (in.) Depth to Free Water in Pit: 6 (in.) Depth to Saturated Soil: 6 (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: None

SOILS

Map Unit Name
(Series and Phase): Ustic torriorthents / ustic haplargids

Taxonomy (Subgroup): ______

Drainage Class: ______
Field Observations
Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-3		10YR 2/3			CL
3-7		10YR 3/4	7.5YR 4/6	10% slight contrast	~~CL~~, SCL
7-12		10YR 4/4			CL

Hydric Soil Indicators:

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

Remarks: Edge of wet pipeline right of way

WETLAND DETERMINATION

			(Circle)
Hydrophytic Vegetation Present?	Yes	(No)	
Wetland Hydrology Present?	Yes	(No)	
Hydric Soils Present?	Yes	(No)	
Is this Sampling Point Within a Wetland?	Yes	(No)	

Remarks: ~~[illegible]~~

Approved by HQUSACE 3/92

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

(70)

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J. Dawson H. [illegible]	Date: 11/11/03 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: 70 Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha	H	OBL	9.		
2. Elyes	H	OBL	10.		
3. Rumex crispus	H	FACW	11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Dense Salix along banks. No hydrophytic indicators in willows. Mostly cattail in ditch bottom

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: — (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: 0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: No pit. Ditch bottom ~5' below berm [illegible] [illegible] need to walk. Only wetland part of ditch was [illegible] included

Ditch incised. Continues on other side of US 550. as small side ditch – Wetland CO

SOILS

Map Unit Name (Series and Phase): Cadillac gravelly loam 0-3 %

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

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

Remarks: No pit. VBLT FACw with sharp boundary.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

71-A
wetland

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

Project/Site: U.S. 550	Date: 11/12/03
Applicant/Owner: CPOT	County: La Plata
Investigator: J. Dawsmek Connelise	State: CO
Do Normal Circumstances exist on the site? (Yes) No	Community ID:
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: 71-A
Is the area a potential Problem Area? (Yes) No	Plot ID:
(If needed, explain on reverse.) Constructed in 2000	

VEGETATION

Photo 14, 13

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Echinochloa	H	FACW	9.		
2. Eleocharis palustris	H	OBL	10.		
3. Agropyron smithii (edge)	H	FACW	11.		
4. Rumex crispus	H	FACW	12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): 75

Remarks: About 2/3 of wetland is ± ponded area of mud and barnyard grass.

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: Std. of Area 1" (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: surface = 0 (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Newly constructed roadside ditch, flows north to south to connect to Citizens Animas Ditch just before under US 550 in culvert

SOILS

Map Unit Name (Series and Phase): Fa/Sa clay loam

Drainage Class:

Field Observations

Taxonomy (Subgroup):

Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR 4/3	None		clay loam
		10YR 3/3 mix			
		10YR 5/1			

Hydric Soil Indicators:

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

Remarks: Newly constructed soil appears mixed. Pit in an area of sediment deposits from ponding. Assume site does not display hydric characteristics - less than 3 yrs.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	Is this Samplig Point Within a Wetland? (Yes) No

Remarks:

Approved by HQUSACE 3/92

71-B
upland

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

Project/Site: US 550
Applicant/Owner: CDOT
Investigator: J. Dawson & K. Cornelius

Date: 11/12/03
County: La Plata
State: CO

Do Normal Circumstances exist on the site?	(Yes)	No
Is the site significantly disturbed (Atypical Situation)?	Yes	(No)
Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes	(No)

Community ID:
Transect ID: 71-B
Plot ID:

Photos: 14, 13

VEGETATION

	Dominant Plant Species	Stratum	Indicator
1.	Agropyron elongatum	H	NL
2.	Agropyron trachycaulum	H	FACU
3.	Plantago lanceolata	H	FACU
4.	Oryzopsis hymenoides	H	NL
5.	Melilotus officinalis	H	FACU
6.	Chive }		
7.	Brome } same		
8.	Chicory		
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks: Revegetation mix on highway slope

HYDROLOGY

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

Field Observations:

Depth of Surface Water: ________(in.)

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

Depth to Saturated Soil: ________(in.)

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

Remarks: No indicators - slope upward to highway

SOILS

Map Unit Name (Series and Phase): Constructed

Drainage Class:

Taxonomy (Subgroup):

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-9		5Y 4/3	None		Gravelly loamy clay
		7.5YR 5/1			
		2.5Y 4/1	mix		
		2.5Y 4/2			

Hydric Soil Indicators:

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

Remarks: No indicators. Soil mixed from recent construction

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes (No)	(Circle)
Wetland Hydrology Present?	Yes (No)	
Hydric Soils Present?	Yes (No)	
Is this Samplig Point Within a Wetland?	Yes (No)	(Circle)

Remarks:

Approved by HQUSACE 3/92

72-A
72-C
wetland

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: S. Dawson K Cornelius	Date: 11/16/03 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: ~~72-A~~ 72A Transect ID: Plot ID: 72-C

Stateline Project Mitigation area — photo 3, 2

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Typha	H	OBL	9. Seepage area — C		
2. Eleocharis palustris	H	OBL	10. Agrostis stolonifera	H	FACW
3. Agrostis stolonifera (edge)	H	FACW	11. Juncus torreyi	H	FACW+
4. Potamogeton (openings)	H	OBL	12. Scirpus [illegible]	S	OBL
5. Phalaris arundinacea	H	OBL	13. Epilobium ciliatum	H	FAC
6. (seepage)			14. Carex canadensis	H	NL
7.			15. Bromus? grass	H	FACW
8.			16. Eleocharis palustris	H	OBL
Plantago lanceolata			Hordeum jubatum	H	FAC

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). A = 100 C = 87

Remarks: Mostly cattail in constructed wetland. Very mixed on lower slope seepage area extends below fence killing sagebrush. Well defined willow channel leads to Animas River on floodplain. irrigation ditch that parallels (Twin Rock Ditch)

HYDROLOGY

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

Remarks: Open water in some parts. pit from a saturated area near edge. Depression. Fed by tail water from irrigation canal. Small pond with Potamogeton at S end

Most of wetland in an ~~[illegible]~~ enclosed basin. Area also includes seepage on downward side

Seepage area has some surface water. Was flow, subirrigation

SOILS

Map Unit Name (Series and Phase): Constructed

Taxonomy (Subgroup):

Drainage Class:
Field Observations
Confirm Mapped Type? Yes No

Profile Description:

	Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
A	0-2		2.5Y 3/1	None		C
	2-12		10YR 4/1	None		C
E	0-12		10YR 5/2 ~~7.5YR 4/4~~	7.5YR 4/4	Abundant 50/50	LC

Hydric Soil Indicators:

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

Remarks: Heavy clay, very hard to get out of hole
Pit about 3' within cattail zone
7 & E in seepage area mostly Agrostis stolonifera

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No	(Circle)
Wetland Hydrology Present?	(Yes) No	
Hydric Soils Present?	(Yes) No	

Is this Sampling Point Within a Wetland? (Circle) (Yes) No

Remarks:

Approved by HQUSACE 3/92

72-B
upland

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: J. Dawson, K. Cornelius	Date: 6/12/03 County: La Plata State: CO
Do Normal Circumstances exist on the site? **Yes** No Is the site significantly disturbed (Atypical Situation)? Yes **No** Is the area a potential Problem Area? Yes **No** (If needed, explain on reverse.)	Community ID: Transect ID: [illegible] Plot ID: 72B

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Mustard spp.			9.		
2. Grindelia squarrosa			10.		
3. Convolvulus arvensis			11.		
4. Agropyron elongatum			12.		
5. Verbascum thapsus [illegible]			13.		
6. Bromus tectorum			14.		
7. Sporobolus cryptandrus			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 0

Remarks: Paired with 78 A
± weedy revegetated road berm 4:1 between 550 and WL
Grindelia squarrosa, Verbascum on edge of wetland chicory

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available Field Observations: Depth of Surface Water: 0 (in.) Depth to Free Water in Pit: None (in.) Depth to Saturated Soil: None (in.)	Wetland Hydrology Indicators: Primary Indicators: ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: No Indicators

MEMO A-2

SOILS

Map Unit Name (Series and Phase): Constructed

Drainage Class: ______

Field Observations Confirm Mapped Type? Yes No

Taxonomy (Subgroup): ______

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR3/4	None		Loam
6-8		2.5Y 6/8	None		Hard SL
8+		Rock			White sandstone

Hydric Soil Indicators:

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

Remarks: Tried several pits. large blocks of sandstone preventing going to 12 inches in all of them. This was the deepest. No Indicators. Pit about 20' from 72A ~~22A~~ S.W., about 4' vertically

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	~~Yes~~ (No)	(Circle)
Wetland Hydrology Present?	Yes (No)	
Hydric Soils Present?	Yes (No)	

(Circle)

Is this Samplig Point Within a Wetland? Yes (No)

Remarks:

Approved by HQUSACE 3/92

NW-1

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

Project/Site: US 550	Date: 9/19/91
Applicant/Owner: CDOT	County: La Plata
Investigator: J. Dawson and Andy Herb	State: Co
Do Normal Circumstances exist on the site? (Yes) No	Community ID: ~~10-6~~ NW-1
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID: NW-1
Is the area a potential Problem Area? Yes (No)	Plot ID:
(If needed, explain on reverse.)	

NW-1

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL 60
2. Glyceria lanceolata	H	FACW 10
3. Hordeum jubatum	H	FAC* 10
4. Phalaris arundinacea	H	OBL 5
5.		
6.		
7.		
8.		

Dominant Plant Species	Stratum	Indicator
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 3/4 = 75

Remarks: Part of hay meadow/pasture

HYDROLOGY

___ Recorded Data (Describe in Remarks):
- ___ Stream, Lake, or Tide Gauge
- ✓ Aerial Photographs — very faint
- ___ Other

___ No Recorded Data Available

Field Observations:

Depth of Surface Water: — (in.)

Depth to Free Water in Pit: — (in.)

Depth to Saturated Soil: — (in.)

Wetland Hydrology Indicators:

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

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

Remarks: Small depressional area - sump for irrigation - highway higher. In irrigated field along edge of roadway embankment.

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 1-3% slopes

Drainage Class: Well-drained

Taxonomy (Subgroup): _____

Field Observations Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
10"		10YR 4/3	Faint		LC Damp

Hydric Soil Indicators:

___ Histosol (None)
___ Histic Epipedon
___ Sulfidic Odor
___ Aquic Moisture Regime
___ Reducing Conditions
___ Gleyed or Low-Chroma Colors
___ Concretions
___ High Organic Content in Surface Layer in Sandy Soils
___ Organic Streaking in Sandy Soils
___ Listed on Local Hydric Soils List
___ Listed on National Hydric Soils List
___ Other (Explain in Remarks)

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)	
Wetland Hydrology Present?	Yes (No)	Is this Samplig Point Within a Wetland?	Yes (No)
Hydric Soils Present?	Yes (No)		

Remarks:

Approved by HQUSACE 3/92

NW-2

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

Project/Site: US 550	**Date:** 9/17/01
Applicant/Owner: CDOT	**County:** La Plata
Investigator: Herb/Dawson	**State:** Co
Do Normal Circumstances exist on the site? (Yes) No	**Community ID:** ~~NW-2~~
Is the site significantly disturbed (Atypical Situation)? Yes (No)	**Transect ID:** NW-2
Is the area a potential Problem Area? Yes (No)	**Plot ID:**
(If needed, explain on reverse.)	Non-WL Data Point

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL 40%	9.		
2. Echinochloa crusgalli	H	FACW <1%	10.		
3. Rumex sp.	H	FACW <1%	11.		
4. Hordeum jubatum	H	FAC+ 2%	12.		
5. Poa sp.	H	FACW-FAC 5%	13.		
6. Tansy Mustard	H	NL 5%	14.		
7. Juncus baltricus	H	OBL 2%	15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 5/7 = 71%

Remarks: Eleocharis is most dominant, Cannweed, chickory + Jap. brome and several small Chinese elm along edges
By big Populus deltoides - Elps, Polygonum lanceolatum, High

HYDROLOGY

Recorded Data (Describe in Remarks):
- ✓ Stream, Lake, or Tide Gauge
- ✓ Aerial Photographs Drainage
- ✓ Other USGS map
- ___ No Recorded Data Available

Field Observations:

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

Wetland Hydrology Indicators:

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

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

Remarks: No primary indicators — area likely ponds water after heavy precip. events and during ditch overflow events

SOILS

Map Unit Name (Series and Phase): Falfa clay loam 1-3% Drainage Class: Well-drained

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

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14		7.5YR 3/3	Small mottles, faint in color		clay loam

Hydric Soil Indicators:

None

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

Remarks: No hydric soil indicators. Soil pit in E Ponderosa
2nd pit by Douglas fir — 10YR 4/3 found few mottles

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	(Yes) No (Circle)	(Circle)
Wetland Hydrology Present?	Yes (No)	
Hydric Soils Present?	Yes (No)	Is this Sampling Point Within a Wetland? Yes (No)

Remarks: Small area possibly dammed by a dirt road — likely ponds water during major precip. events + during ditch overflows. Ditch located to the north + west. Area likely has been disturbed (very weedy in surrounding areas).

NW-3

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

Project/Site: US 550	**Date:** 9/19/01
Applicant/Owner: CDOT	**County:** La Plata
Investigator: Dawson and Hawk	**State:** CO
Do Normal Circumstances exist on the site? (Yes) No	**Community ID:** ~~29-1~~
Is the site significantly disturbed (Atypical Situation)? Yes (No)	**Transect ID:** NW-3
Is the area a potential Problem Area? Yes (No)	**Plot ID:**
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Eleocharis palustris	H	OBL 30	9.		
2. Hordeum jubatum	H	FAC+ 10	10.		
3. Plantago lanceolata	H	FACU 20	11.		
4. Poa pratensis	H	FACU 5	12.		
5. Trifolium	H	FACU?	13.		
6. Phleum pratense	H	FACU 5	14.		
7. Rumex crispus (?)	H	FACW 5	15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 3/7 = 43

Remarks: Very transitional, poorly defined boundaries

HYDROLOGY

- X Recorded Data (Describe in Remarks):
  - ___ Stream, Lake, or Tide Gauge
  - X Aerial Photographs
  - X Other USGS topo
- ___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	0 (in.)
Depth to Free Water in Pit:	>16 (in.)
Depth to Saturated Soil:	>16 (in.)

Wetland Hydrology Indicators:

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

NWI

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

Remarks: Flow was in swale in irrigated meadow. Original route of Unnamed tributary of Florida River. Any surface flows now pass through wetland 49. This may also be an area where leakage in reservoir has occurred in the past

SOILS

Map Unit Name (Series and Phase): Falfa clay loam, 3-8% Drainage Class: Well drained

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

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/Contrast	Texture, Concretions, Structure, etc.
0-1	A				
1-18+		10YR 4/3		Faint, few	CL

Hydric Soil Indicators:

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

None

Remarks: Oxidized rhizospheres - a couple

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes (No) (Circle)	(Circle)
Wetland Hydrology Present?	Yes (No)	
Hydric Soils Present?	Yes (No)	Is this Sampling Point Within a Wetland? Yes (No)

Remarks:

NW-4

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

Project/Site: US 550 Applicant/Owner: CDOT Investigator: S. Dawson K. Cornelison	Date: 11/11/03 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? (Yes) No Is the area a potential Problem Area? Yes (No) (If needed, explain on reverse.)	Community ID: Transect ID: ~~6SA~~ Plot ID: NW-4

photo 22

VEGETATION

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

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Dense Phar between fence (slightly moist) and road edge 4' to 1' About 10 ft wide. Adjacent veg is mix of Phar, Agsp, Plantago lanceolata, Trifolium pratense higher ground vegetation much shorter

HYDROLOGY

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ✓ No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: ___ Inundated ✓ Saturated in Upper 12 Inches ___ Water Marks ___ Drift Lines ___ Sediment Deposits ___ Drainage Patterns in Wetlands
Field Observations: Depth of Surface Water: 0 (in.) Depth to Free Water in Pit: 8 (in.) Depth to Saturated Soil: 4 (in.)	Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks: Roadside depression. Adjacent pit in upland has no indicators. Water from culvert/ditch drainage

SOILS

Map Unit Name (Series and Phase): Fella Jay Loam 1-3

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6		10YR4/3			CL
6-12		10YR4/3	2.5Y 2.5/1	20% Mutmute	CL
12+		10YR4/4			CL

Hydric Soil Indicators:

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

Remarks: Pit inside fence ~ 1' inside edge of wetland. NV indicators.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

(Circle)
Is this Samplig Point Within a Wetland? Yes No

Remarks: Small ditch on other side of road also NV mostly dry but in bottom.

Approved by HQUSACE 3/92

NW-5

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

Project/Site: U.S. 550 Applicant/Owner: CDOT Investigator: J Dawson K. Carmichael	Date: 11/11/03 County: La Plata State: CO
Do Normal Circumstances exist on the site? (Yes) No Is the site significantly disturbed (Atypical Situation)? Yes (No) Is the area a potential Problem Area? (Yes) No (If needed, explain on reverse.)	Community ID: Transect ID: NW-5 Plot ID:

after irrigation season

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. Typha	H	OBL
2. Eleocharis palustris	H	OBL
3. Rumex crispus	H	FACW
4. Juncus	S	OBL
5. Hordeum	H	FAC
6. Agrostis	H	FACW
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: 3 of 5 PSS

HYDROLOGY

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

___ No Recorded Data Available

Field Observations:

Depth of Surface Water:	None	(in.)
Depth to Free Water in Pit:	None	(in.)
Depth to Saturated Soil:	None	(in.)

Wetland Hydrology Indicators:

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

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

Remarks: Roadside depression ~5' lower than road surface and 2' lower than adjacent field

SOILS

Map Unit Name (Series and Phase): Sedilla gravelly loam 0-3%

Drainage Class: _____

Field Observations
Confirm Mapped Type? Yes (No)

Taxonomy (Subgroup): _____

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR 4/3	None		[illegible]

Hydric Soil Indicators:

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

Remarks: Pit in dune spherush in middle of drainage pattern. No indicators

WETLAND DETERMINATION

Hydrophytic Vegetation Present? (Yes) No (Circle)
Wetland Hydrology Present? (Yes) No
Hydric Soils Present? Yes (No)

Is this Samplig Point Within a Wetland? (Circle) Yes (No)

Remarks: [illegible]

Approved by HQUSACE 3/92

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

Project/Site: US 550	Date: 11/12/03
Applicant/Owner: CDOT	County: La Plata
Investigator: A. J. Dawson, K. [illegible]	State: CO
Do Normal Circumstances exist on the site? **(Yes)** No	Community ID:
Is the site significantly disturbed (Atypical Situation)? Yes **(No)**	Transect ID: ~~[illegible]~~ NW. 5
Is the area a potential Problem Area? Yes **(No)** (If needed, explain on reverse.)	Plot ID:

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. Carex lanuginosa	H	OBL	9.		
2.			10.		
3.			11.		
4.			12.		
5.			13.		
6.			14.		
7.			15.		
8.			16.		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-). 100

Remarks: Dominant plant is Poa, Cli, Agrostis, Carex, [illegible] [illegible] Brom cottonwood Bwy Musk thistle road berm bottom and small depression between road berm and cottonwood forest below Pine hill ridge

HYDROLOGY

___ Recorded Data (Describe in Remarks):	Wetland Hydrology Indicators:
___ Stream, Lake, or Tide Gauge	Primary Indicators:
___ Aerial Photographs	___ Inundated
___ Other	___ Saturated in Upper 12 Inches
___ No Recorded Data Available	___ Water Marks
	___ Drift Lines
Field Observations:	___ Sediment Deposits
	___ Drainage Patterns in Wetlands
Depth of Surface Water: None (in.)	Secondary Indicators (2 or more required):
	___ Oxidized Root Channels in Upper 12 Inches
Depth to Free Water in Pit: None (in.)	___ Water-Stained Leaves
	___ Local Soil Survey Data
Depth to Saturated Soil: None (in.)	___ FAC-Neutral Test
	___ Other (Explain in Remarks)

Remarks: No indicators. Roadside swale. No outlet. Low area between hill and road. No evidence of ponding or incoming channels, but gets some overland flow

SOILS

Map Unit Name (Series and Phase): Poscar fine sandy loam

Taxonomy (Subgroup): ______

Drainage Class: ______

Field Observations

Confirm Mapped Type? Yes **(No)** (circled)

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-9		10YR4/3	~~10~~7.5YR 4/4	few large	CL mottles may be S... ~~soil mottling~~
9-12		10YR 3/2			LC
		~~10YR~~			

Hydric Soil Indicators:

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

Remarks: No indicators.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	**(Yes)**	No	(Circle)
Wetland Hydrology Present?	Yes	**(No)**	
Hydric Soils Present?	Yes	**(No)**	

Is this Sampling Point Within a Wetland? (Circle) Yes **(No)**

Remarks:

Approved by HQUSACE 3/92

Appendix E
Wetland Mitigation Site Selection Form

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

Project Name/No.: ***US 550 From New Mexico State Line North to County Road 220 - NH5501-011***
Subaccount ***12979*** Region ***5*** Author: ***Jeff Dawson*** Firm: ***URS Corporation*** Date: ***August 23, 2004***

Mitigation Options Available

(1) Mitigation bank available? *No*
(2) Project impacts in 1°, 2° service area? *NA* (3) HUC units *14080104*
(4) On-site mitigation available? *Yes*
(5) Off-site mitigation available? *Yes*
(6) In-lieu fee arrangement available? *No*
(7) Mitigation ratio(s) involved? *Yes* Ratio(s) *1:1*

Site Characteristics

	Impact Site	Mitigation Site
(8) Geographic location	*US 550 - From New Mexico State Line to CR220 UTM: From 13 247653E 4122414N To 13 244656E 4098728N*	*Not yet determined*
(9) Wetland community type	*95% PEM, 5% PSS*	*Not yet determined*
(10) Functions, values	*Low rated: TE, WH, FA, SS, SR, PE, GW, U, R*	*Not yet determined*
(11) Size of impacts, pct?	*2.89 acres, 22 percent of the project area wetlands*	*N/A*

Wildlife/Habitat

(12) T&E species/habitat present?	*Yes*	
(13) Species? Status?	*Bald Eagle, Southwestern willow flycatcher4 Federally threatened*	
(14) Migratory Bird Treaty Act?	*The project will comply with the Act*	
(15) Other wildlife issues?	*Migration corridor*	*Will maintain migration corridor*
(16) Status of aquatic resource?	*No special status*	
(17) Special aquatic site?	*Wetlands*	
(18) Unique? Quality? Ranking?	*Not unique, low quality, no rating*	*Will create a higher quality wetland*
(19) Watershed, ecosystem issues?	*Non-jurisdictional irrigation wetlands are common in the region because of irrigated agriculture*	

Other

(20) Likelihood of success?	*N/A*	*Not yet determined*
(21) Interagency agreement?	*N/A*	*None*

(22) Project logistics, size/scope? *Five new potential on-site wetland mitigation areas have been identified. These areas will be investigated and a site selected for mitigation. Options are limited for on-site mitigation.*
(23) Cost considerations? *CDOT will obtain easements or other legal protection of the mitigation areas.*

Water Issues

(24) Individual 404 permit condition? *An IP will be required, but the special conditions are not yet known*
(25) 404(b)(1) Guidelines? *A 404(b)(1) Analysis was performed as part of the EA and the proposed project is the least environmentally damaging, practicable alternative*
(26) NWP gen., reg. conditions? *No*
(27) Regulatory letters? *The location and design of the mitigation site will comply with RGL 02-2 and will incorporate a "watershed approach" to wetland mitigation*
(28) S.B. 40? *All mitigation requirements associated with S.B. 40 will be followed.*
(29) Water rights issues? *The wetland mitigation replacement ratio will be 1:1 and no open water will be included in the mitigation design, so no additional water rights will be needed. Water rights will not be an issue.*

NEPA Issues

(30) Cumulative impact issues? ***CDOT is committed to successful compensatory mitigation for both jurisdictional and non-jurisdictional wetlands, thus the US 500 project would not contribute to cumulative losses of non-jurisdictional wetlands.***
(31) Agency policy, input? ***None***
(32) Public involvement? ***No specific requests regarding wetland mitigation***

(33) Basis for Decision

[Describe those factors from the front side that are instrumental in the selection of the chosen mitigation decision.]

Five new potential on-site wetland mitigation areas have been identified. One of them (Animas River Terrace) is relatively large and can be used to mitigate all of the project impacts, if necessary, and also provides a location for riparian habitat mitigation. The other four sites are smaller and address specific impacts. All 5 areas will be investigated during final design and permitting. All of the potential mitigation areas are in upland or primarily upland areas, and wetland mitigation will primarily consist of wetland creation. Final selection of sites and construction methods will depend on various factors such as the areas required, land availability, hydrology, engineering feasibility, wetland functions that can be achieved, and the surrounding habitats and relative importance in the ecological landscape. CDOT will identify and preserve larger blocks of land for wetland mitigation as early as possible. Early identification, preservation, and construction of mitigation sites will facilitate management and monitoring, increase the probability of success, and enable better long-term protection. CDOT will obtain easements or other legal protection of the mitigation areas.

(34) Decision

Pursue on-site compensatory wetland mitigation, but actual sites are yet to be determined.