

NORTH I-25
EIS



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**Technical Memorandum
WETLANDS AND OTHER WATERS**

Prepared by:



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INTRODUCTION

This technical memorandum describes the results for the inventory of wetlands and other waters within the North I-25 regional project area (see Appendix A for vicinity map). Wetlands and waters of the U.S. are regulated under the Clean Water Act. Wetlands are further protected by Executive Order 11990 which calls for actions to minimize destruction and loss to, and the preservation and enhancement of, wetlands affected by federal actions. Also included in this memorandum are assessments of potential impacts, mitigation measures, wetland delineation forms, representative photographs, and functions and values assessment forms.

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), in cooperation with the Colorado Department of Transportation (CDOT), have initiated preparation of an Environmental Impact Statement (EIS) to identify and evaluate multimodal transportation improvements along approximately 53 miles of the I-25 corridor from the Fort Collins-Wellington area to Denver. The Draft EIS will address regional and inter-regional movement of people, goods and services in the I-25 corridor. As part of that process, a watershed assessment has been conducted to establish the amount of wetlands that could be impacted by the project.

The project area spans portions of seven counties: Adams, Boulder, Broomfield, Denver, Jefferson, Larimer, and Weld. The major population centers in the project area include Greeley, Loveland, Fort Collins and the communities in the northern portion of the Denver metropolitan area.

This report presents the results of a wetland inventory for the I-25 project area and maps depicting wetland locations within the project area. Wetlands were identified using a combination of field reconnaissance surveys, on-site surveys, and review of aerial photographs and mapping. This report was prepared to generally describe wetlands and other waters identified within the project area and to serve as a technical report that can be used to provide supplemental information to the EIS. For the purposes of this report, other waters are broken into two categories, Waters of the U.S., which are streams, rivers, creeks, or other linear aquatic features, and Open Waters, which are ponds, lakes and reservoirs.

WETLAND INVENTORY

Objectives of the Wetland Inventory

A wetland inventory was conducted within the project area, which is defined as approximately 53 miles of the I-25 corridor from the Fort Collins-Wellington area to Denver that extends from US 287 and the Burlington Northern and Santa Fe Railway routes on the west to US 85 and the Union Pacific Railroad line on the east. The objectives of the wetland inventory were to:

- ▶ Conduct an on-site inventory of wetlands within proposed project alignments.

- ▶ Identify potential wetlands in the remaining portion of the project area from visual observations from the road right-of-way in conjunction with National Wetland Inventory (NWI) maps and aerial photographs.

Methods

Wetland Delineation Protocol

A wetland inventory was conducted in the project area following criteria set forth in the 1987 manual to ensure consistency with federal, state, and local regulations. For regulatory purposes, wetlands are defined as: “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (CFR 328.3, 40 CFR 230.3)”.

During wetland determinations, wetland scientists collected data for all accessible wetlands on location, dominant vegetation, wetland plant associations based on Colorado Natural Heritage Program (CNHP) field sampling of Colorado wetlands, Cowardin wetland class, and basic wetland functions. Wetland plant associations used for the project area were groupings of CNHP detailed plant associations. Wetlands frequently include more than one wetland plant association. Classification either was based on the dominant plant association or wetlands were split into several plant associations. Wetland locations were hand drawn on 1:200 scale color aerial photographs for inclusion in project area wetland mapping.

Representative wetland community types were delineated in the field following methods outlined in the 1987 Corps of Engineers Wetland Delineation Manual (USACE 1987). The manual outlines methods used to determine the presence of wetlands based on the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. As is commonly accepted by the USACE, the 1988 Region 5 (Central Plains) Wetland Indicator List (Reed 1988) was used to determine the hydrologic indicator status of plant species. Hydric soils were field identified on the basis of hydric soil indicators including gleying, low chroma colors, mottling, sulfuric odor, and inundation and saturation levels. A Munsell Soil Color Chart was used to determine soil color. Routine Wetland Delineation forms were completed for each wetland community type, and photographs document each representative wetland.

Wetland community types were classified according to Cowardin et al. (1979) and the recently developed system in Field Guide to the Wetlands and Riparian Plant Associations of Colorado (Carsey et al. 2003).

To be subject to federal jurisdiction, a wetland must exhibit positive indicators for three mandatory diagnostic environmental characteristics, or technical criteria: vegetation, soil, and hydrology. “Hydrophytic vegetation”, “hydric soil” and “wetland hydrology” are used in this report to refer to these three parameters. A “jurisdictional wetland” refers to a site that meets the three technical criteria. All wetlands in the project area were delineated based on the same criteria, regardless of their potential jurisdictional status.

Hydrophytic Vegetation

Hydrophytic plants are those plants that are adapted to life in water, soil, or on a substrate that at least periodically experiences anoxic or conditions lacking dissolved oxygen. The U.S. Fish and Wildlife Service (USFWS) has assigned plant indicator status for species based on their frequency of occurrence in wetlands. Plant indicator status categories are described in **Table 1**.

Table 1 Plant Indicator Status Categories

Indicator Status ¹	Definition
Obligate Wetland (OBL)	Occur almost always in wetlands under natural conditions (probability >99%).
Facultative Wetland (FACW)	Usually occur in wetlands (probability >67% to 99%), but occasionally found in non-wetlands
Facultative (FAC)	Equally likely to occur in wetlands or non-wetlands (probability 33% to 67%).
Facultative Upland (FACU)	Usually occur in non-wetlands, but occasionally found in wetlands (probability 1%to<33%).
Obligate Upland (UPL)	Occur rarely in wetlands under natural conditions (probability <1%).
No Indicator Status (NI)	Insufficient information exists to assign an indicator status.

Source: U.S. Fish and Wildlife Service, 1988.

Notes: ¹ The three facultative categories are sometimes modified by (+) and minus(-) signs for the purpose of designating a higher or lower level of the indicator status. A FAC- indicator status is not considered to be an indicator of hydrophytic vegetation.

For a vegetation community to be considered hydrophytic, greater than 50% or more of the dominant species in that area are rated as facultative, facultative wetland, or obligate wetland.

Wetland types were classified according to the system developed by the USFWS (Cowardin et al. 1979). “Dominant” is a term used to describe the prevailing vegetation composition of sites that are evaluated for jurisdictional status. The two most commonly used estimates in determining dominance are basal area (trees) and percent aerial cover (herbs).

Typical vegetation occurring in riparian zones along wetlands in the project area include silver maple (*Acer saccharinum*), Woods’ rose (*Rosa woodsii*), showy milkweed (*Asclepias speciosa*), Siberian elm (*Ulmus pumila*), Russian olive (*Elaeagnus angustifolia*), smooth brome (*Bromus inermis*), crack willow (*Salix fragilis*), boxelder (*Acer negundo*), narrowleaf willow (*Salix exigua*), green ash (*Fraxinus pennsylvanica*), and a mixture of emergent wetland vegetation. Common wetland vegetation found in the N I-25 project area can be found in **Table 7** at the end of this report.

Hydric Soils

Hydric soils are defined as those soils which are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation. Determination of hydric soils was based on the direct observation of either direct evidence of flooding or ponding, or of the presence of one or more of the following hydric soil indicators:

- ▶ Chromas of 1 and 0 without mottles
- ▶ Chromas of 2 or less with redoximorphic features

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- ▶ Organic soils (i.e. peat soils) or histic epipedons
- ▶ Saturated soils indicating aquic soil moisture regime
- ▶ Sulfidic odor indicating reduced soil conditions

Soil pits were made with shovels and examined for hydric soil indicators. Soil color determinations and identification of redoximorphic features were made using the Munsell soil color charts (Macbeth, 1994), and textures were determined using hand texturing in coordination with a texture-by-feel analysis flow chart for proper identification.

Wetland Hydrology

Wetland hydrology was based on field observations. Areas possessing wetland hydrology were inundated either permanently or periodically, or the soil was presumed to be saturated to the surface for sufficient time during the growing season to influence soil conditions and plant growth.

All information gathered on wetlands will be reviewed by the USACE to ensure they concur that the identified community types are accurately described and adequately document the range of wetlands present. Following USACE review and concurrence, wetlands within 100' of the proposed right-of-way for each of package alternative will be mapped by wetland community type based on dominant vegetation, with the assumption that hydric soils and hydrology are also present. Wetland boundaries, based on photographic signatures of known wetlands and field work, were hand drawn onto large scale, orthographically-rectified color aerial photographs. Each wetland site was then digitized into project base mapping and assigned an identification code that was used on all mapping, data sheets, and written descriptions. If property owners did not allow access, wetlands were mapped by aerial photograph interpretation and visual observation from within the road right-of-way.

In order to determine the ecological functions and values of each wetland community type, a functional assessment of each community was performed using a modified version of the Montana Wetland Assessment Method, which is discussed in detail below.

Wetland Mapping

All wetland information collected from the field and aerial mapping were digitized and converted into Global Information System (GIS) shape and database files. Data extracted from the Global Positioning System (GPS) unit was differentially corrected using National Geodetic Survey Continuously Operating Reference Stations (CORS) to acquire 3-dimensional positioning locations of recorded boundaries and then exported as shape files into GIS mapping.

Access Areas

Wetland units within access parcels were typically mapped using Trimble Pro Geo XH GPS capable of sub-foot accuracy. Boundaries of the wetland units were recorded while walking along the existing edges and mapping limits with the handheld GPS receiver. Not all boundaries were mapped using GPS since some boundaries were inaccessible, such as cattail wetlands that extended into surface water, and steep shorelines that could not be walked on safely.

No-Access Areas

A majority of parcels where access was not permitted were visible from public roads, while others were located public properties so some assessment could be conducted visually with a site visit. Larger scale aerial photography was used in the field to hand map the observed wetland units as best as was possible, and a photograph of the site was often taken to further document the observed conditions. There were however some areas that could not be directly observed. These few areas were mapped solely using aerial photography.

Wetland Functional Assessment

The wetland determination included a basic professional judgment of wetland functions. A modified version of wetland function and values were determined based on existing guidelines established by the Montana Wetland Assessment Method (Montana Method), a detailed wetland assessment method developed by the Montana Department of Transportation to provide rapid, economical, repeatable wetland evaluations, was used to assess functions and values of wetland sites selected for wetland delineation (Berglund, 1999).

The Montana Method uses a classification system that combines the USFWS classification system with a hydrogeomorphic (HGM) approach (Berglund, 1999). The Montana Method provides a landscape context to the USFWS classification.

A slightly modified scale was used for the purpose of this study to account for ecosystem differences, attributed to the fact that Colorado has a more arid climate than Montana. An estimate of the quality of the wetland was based on the following classes and criteria:

- ▶ *High Quality Wetlands* have diverse vegetation (2 or more types of wetland vegetation; i.e. emergent and scrub/shrub present), are adjacent to a natural stream, have a well developed associated riparian area and/or provide 4 or more wetland functions.
- ▶ *Moderate Quality Wetlands* are less diverse with only 1 or 2 types of wetland vegetation, may be adjacent to highly-altered stream or reservoir, and may provide 3 or fewer wetland functions.
- ▶ *Low Quality Wetlands* have less diverse vegetation (1 type of wetland vegetation), may be adjacent to highly-altered stream, irrigation or roadside ditch, with no associated riparian area, and have 2 or fewer wetland functions.

For the purpose of this study, wetland functions assessed include the following:

- | | |
|---|--|
| ▶ Threatened and Endangered Species habitat | ▶ Water Quality Improvement |
| ▶ Fish and Wildlife habitat | ▶ Groundwater Recharge/Discharge |
| ▶ Vegetative Habitat diversity | ▶ Education/Research |
| ▶ Food Chain Support/Production Export | ▶ Recreational / Educational / Aesthetic qualities |
| ▶ Bank/Shoreline Stabilization | ▶ Uniqueness/Heritage |

GENERAL SITE CONDITIONS

The project area is located in North Central Colorado, spanning across seven counties and various types of ecosystems. Project area elevations range from approximately 4,600 to 6,000 feet above sea level. A total of five watersheds are located within the project area including: Big Thompson, Cache la Poudre, Clear, Middle South Platte–Cherry Creek, and St. Vrain.

Average annual precipitation for the project area is approximately 17 inches, with approximately 70 to 80 percent of that total falling during the growing season (April to September).

The North I-25 regional project area is within the High Plains Eco-region with the western portion located in the Front Range Fans sub-eco-region and the eastern portion in the Flat to Rolling Plains and Rolling Sand Plains sub-eco-regions (USGS, 2006). The eastern portion of the project area is generally level to rolling prairie broken by occasional hills and bluffs. Affected by rapid development, drought, and invasive species, vegetation in the project area is dominated by non-native plants. The project area primarily includes developed urban and agricultural vegetative habitats. Native, undisturbed habitats in the regional study area are primarily fragmented areas of remnant native prairie and riparian corridors, which typically have an abundance of non-native plant species.

Typical vegetation for the urban, agricultural, and developed habitats include barnyard grass (*Echinochloa crus-galli*), Kentucky blue grass (*Poa pratensis*), western wheatgrass (*Pascopyrum smithii*), smooth brome (*Bromus inermis*), cattail (*Typha sp.*), sedge species (*Carex sp.*), rush species (*Juncus sp.*), narrowleaf willow (*Salix exigua*), Siberian elm (*Ulmus parvifolia*), plains cottonwood (*Populus deltoides ssp. monilifera*), and Russian olive (*Elaeagnus angustifolia*).

Based on the classifications of waters and wetlands developed by Cowardin and others (1979), wetland types present in the project area include palustrine emergent systems with persistent vegetation and palustrine scrub-shrub systems with broad-leaved deciduous shrubs.

Project Area and Study Period

The original survey boundary included about 63 miles of I-25 and a 1,000 foot buffer on each side of the highway. This original boundary was modified on July 29, 2005 and reduced to about 53 miles extending from Denver exit 217 (US 36) to exit 269 (Mulberry St/SH 14) in Fort Collins. The boundary width was variable and was typically about 765 feet wide (440 feet on one side and 325 feet on the other side of the centerline), with expanded areas near highway exits.

Field surveys were conducted in 2005 and 2006 along the alignments within the North I-25 transportation project area.

AGENCY COORDINATION

In 2004, the National Environmental Policy Act/Clean Water Act Section 404 (NEPA/CWA404) merger process and agreement for transportation projects in Colorado was finalized. The purpose of this agreement was to establish a procedure and provide guidance to ensure that documentation and coordination conducted to comply with NEPA will meet the standards of all signatories and that any preferred alternative selected in transportation projects under this joint NEPA/CWA Section 404 decision-making process also complies with CWA Section 404(b)(1) guidelines.

NEPA requires federal agencies to consider the environmental effects of, and any alternatives to, their proposed actions. FHWA is the NEPA lead federal agency for federally funded roadway projects proposed by CDOT. A CDOT action that involves the placement of fill material into a water of the US also requires a CWA Section 404 permit (Permit) from the USACE. For the North I-25 transportation project, an application for a Standard Section 404 Individual Permit (IP) will be necessary based on the large volume of wetlands and anticipated impacts within proposed package alignments. When an IP is required the USACE must determine compliance with the CWA and NEPA prior to issuance of the Permit.

The USACE has primary responsibility for permitting and the U.S. Environmental Protection Agency (EPA) oversees broader issues associated with the Clean Water Act. For the North I-25 transportation project, the four NEPA/404 Merger concurrence points between the FHWA, CDOT, USACE, USEPA, and USFWS are:

- ▶ Project purpose and need (Discussed with the USACE, EPA, and USFWS in 2004). In a letter dated July 25, 2005, USACE concurred with the project Purpose and Need (See Appendix C: Agency Correspondence).
- ▶ Alternatives to be evaluated in detail in the DEIS (Discussed with the USACE, EPA, and USFWS in 2006)
- ▶ Selection of the Least Environmentally Damaging Practicable Alternative (LEDPA)
- ▶ Avoidance and minimization measures stated in the FEIS.

Based on guidelines established in the NEPA/404 Merger, the North I-25 application for a Standard IP will be submitted coincident with the FEIS. Upon review of the final documentation, the USACE will issue a Standard IP based on the results of the North I-25 FEIS.

RESULTS

A total of 2,269 wetlands and other waters with a combined area of approximately 438 acres have been identified in areas surveyed within the project area of North I-25. Wetlands identified within the project area were classified using vegetation classes based on the USFWS wetland classification system (Cowardin et al., 1979), and by whether they are currently in natural or modified condition. Results of the wetland inventory within the project area are summarized in **Table 2**. These results are based

on the record of wetland conditions contained in the GIS database compiled for the environmental analysis for the proposed package alternatives. **Table 7** at the end of this report, lists the common and scientific plant names used in this document.

Table 2 Wetlands and Other Waters Identified Within the North I-25 Project Area

Wetland Type/Terrain	Package A (acres)	Package B (acres)
Palustrine Scrub/Shrub		
Existing	83.71	66.80
Palustrine Emergent		
Existing	315.30	234.38
Other waters		
Waters of the U.S.		
Existing	13.8	14.8
Open Water		
Existing	25.7	28.9
Total Wetlands and Other Waters Existing	438.51	344.88

* Other waters include perennial and intermittent waterways, or bodies of water including irrigation canals, ponds, lakes, and reservoirs, which may be considered as jurisdictional by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act.

Because of the numerous wetlands found within the project area, wetland vegetation, hydrologic and soil conditions and wetland functions are summarized below for wetland groups with similar conditions. The following types of wetlands are found within the project area.

Palustrine Scrub/Shrub Wetlands

Vegetation – Typical vegetation occurring in scrub-shrub wetlands in the project area include various mixes of emergent wetland vegetation in the understory and an overstory primarily dominated in part or combination of narrowleaf willow (*Salix exigua*), boxelder (*Acer negundo*), green ash (*Fraxinus pennsylvanica*), crack willow (*Salix fragilis*), and plains cottonwood saplings (*Populus deltoides ssp. monilifera*).

Riparian zones/buffers are present adjacent to a majority of wetlands occurring along streams, irrigation ditches and canals, and at pond margins. These riparian zones provide important ecological assistance to the existing wetlands and surrounding ecosystem. Typical roles associated with riparian zones include soil/floodplain stability, sediment trap, pollutant filter, wildlife habitat and migration corridors, and water quality improvement.

Hydrology – The majority of scrub/shrub wetlands identified in this portion of the study area occur along the banks and floodplains of established perennial and intermittent waterways and along the outer margins of ponds or large bodies of standing water. A lesser occurrence of this wetland type was identified along man-made irrigation ditches and roadside drainages. Wetlands occurring along the banks of waterways typically have a higher ground water table due to proximity of the stream or river way and receive periods of temporary flooding and inundation from stream and river over flows during storm and snowmelt periods throughout the year. Other common hydrologic indicators identified within these areas include drift lines, sediment deposits, drainage patterns in wetlands, and some areas with water stained leaves.

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Soils - Due to the vast size of the study area, variety of habitats where wetlands were identified, and high level of human disturbance from development, soils for this wetland type are greatly varied within the project area. Some areas were not conducive for creating a soil test pit (i.e. man-made ditches lined with rip-rap) and hydric soils were assumed to be present based on strength of present wetland vegetation and hydrology indicators. Common hydric soil indicators observed in locations where soil test pits were performed include low-chroma colors, mottles, redoximorphic features, sulfuric odors, and high organic content in surface layers. Textures of soils generally include loam, sandy loam, silty loam, silty clay loam, sandy clay loam, and silt loam.

Palustrine Emergent Wetlands

Vegetation – Typical wetland vegetation occurring in emergent wetlands in the project area include cattail species (*Typha sp.*), common threesquare (*Schoenoplectus pungens*), arctic rush (*Juncus arcticus*), reed canarygrass (*Phalaris arundinacea*), Emory's sedge (*Carex emoryi*), smooth horsetail (*Equisetum laevigatum*), bluejoint (*Calamagrostis canadensis*), clustered field sedge (*Carex praegracilis*), foxtail barley (*Hordeum jubatum*), and curly dock (*Rumex crispus*).

Hydrology – The majority of emergent wetlands identified in this portion of the study area occur along man-made irrigation and roadway ditches, edges of pond margins, seeps, and within the floodplains of various perennial and intermittent waterways. Primary hydrology for this wetland type is provided by unidirectional flows of water including surface runoff, waterway over flows, and shallow sub-surface ground water flows. Other common hydrologic indicators observed in these areas include a saturated upper 12" of soil during the growing season, areas of inundation, water-stained leaves, sediment deposits, and drainage patterns common in wetlands.

Soils – Due to the vast size of the study area, variety of habitats where wetlands were identified, and a high level of human disturbance from development throughout the project area, soils for this wetland type are greatly varied. Some areas were not conducive for creating a soil test pit (i.e. man-made ditches lined with rip-rap) and hydric soils were assumed to be present based on strength of present wetland vegetation and hydrology indicators. Common hydric soil indicators observed in locations where soil test pits were performed include low-chroma colors, mottles, redoximorphic features, sulfuric odors, and high organic content in surface layers. Textures of soils generally include loam, sandy loam, silty loam, silty clay loam, sandy clay loam, and silt loam.

Other Waters

A mix of perennial and intermittent waterways as well as ponds exists throughout the project area. Major waterways, from north to south, include:

- ▶ Boxelder Creek – Intermittent stream
- ▶ Cache la Poudre River – Perennial waterway
- ▶ Fossil Creek – Perennial waterway
- ▶ Big Thompson River – Perennial waterway

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- ▶ South Platte River – Perennial waterway
- ▶ Little Thompson River – Perennial waterway
- ▶ St. Vrain Creek – Perennial waterway
- ▶ Little Dry Creek – Intermittent stream
- ▶ Big Dry Creek – Intermittent stream

Jurisdictional Status of Wetlands in the Project Area

On June 5, 2007, the EPA and USACE issued agency guidance, effective immediately, regarding jurisdiction of the Clean Water Act following the Supreme Court decision in *Rapanos vs. United States*. The guidance has been issued to ensure that jurisdictional determinations under the Clean Water Act (CWA) are consistent with the *Rapanos* decision and provide efficient protection for the nation's water resources.

Many North I-25 project area wetlands have an apparent connection to jurisdictional open waters and are anticipated to be jurisdictional. Final wetland jurisdictional status will be determined by the USACE. However, jurisdictional and non-jurisdictional wetlands will be included in all levels of data analysis. In accordance with Executive Order 11990 "Protection of Wetlands", and FHWA 23 CFR 771, 23 CFR 777, and Technical Advisory T6640.8A, all impacts to wetlands will be mitigated.

Conditions and Functions of Wetlands

A total of 2,269 wetlands and other waters covering approximately 438 acres were identified in the project area during site surveys. The majority of wetlands identified are small (approximately 0.25 acre) palustrine emergent, palustrine scrub/shrub, and palustrine scrub/shrub-emergent mix wetlands. These wetlands are located sporadically throughout the project area with primary occurrence along existing waterways and in roadside ditches.

Wetland areas that are classified as *High Quality Wetlands* exist as complexes adjacent to some of the major waterways within the project area. These wetlands are classified as such because they provide habitat to documented populations of threatened and endangered species.

Several wetland locations within the project area are considered as *Moderate Quality Wetlands* based on their diversity of HGM classes, high functioning for fish and wildlife species, and high to moderate ratings for most other variables. These wetlands were primarily identified along and within the vicinity of Cache la Poudre River, St. Vrain Creek, South Platte River, Fossil Creek, Big Thompson River, and Little Thompson River.

The majority of wetlands within the project area are considered as *Low Quality Wetlands* due to their relatively small sizes, single wetland vegetation class, isolated or minimal connectivity to existing drainages, and adjacent location to roadsides or areas of surrounding disturbance.

Wetland Functions

Wetlands provide a variety of functions that are dependent on many factors such as the size of the wetland, topography, geology, hydrology, types and distribution of habitat present, condition of adjacent upland, and disturbance history.

Due to project package alignments being located on existing transit lines and roadways, a majority of wetlands identified within the alignments occur in areas of recent man-made disturbance and are thereby limited in the functions and values they provide leading to a *Low Quality* function and value classification. Additionally, the majority of identified *Low Quality Wetlands* are further limited due to the small size of existing wetland complexes and close proximity/location to developed areas. Wetland types rated as *Low* within project alignments include palustrine scrub/shrub and palustrine emergent.

Most wetland complexes associated with the banks, floodplains, and adjacent riparian areas of perennial waterways within project alignments were identified as *Moderate Quality Wetlands* which provide a variety of functions and values discussed further below. Typically in *Moderate Quality Wetlands* complexes, emergent wetlands provide natural biological support, and when associated with a stream or river, can provide organic input to that can be used by aquatic invertebrates which provide a food base for other vertebrates (fish, mammals, birds, amphibians, etc.). Scrub-shrub wetlands can provide greater plant community structure, habitat, and food chain support that can be utilized by birds and mammals. *Moderate Quality Wetlands* within project alignments include palustrine scrub/shrub and palustrine emergent.

Very few wetland locations within the project area were classified as *High Quality Wetlands*. Presence of known threatened or endangered species habitat or populations within a wetland location would automatically qualify the wetland as *High Quality*, regardless of ratings for other functions and values. All *High Quality Wetlands* identified within the project area were classified as such due to presence of threatened or endangered species habitat and/or use.

Primary functions and values associated with *High Quality Wetlands* can be summarized as follows:

- ▶ Threatened and Endangered Species habitat –Known populations of federal and state listed species were identified in the North I-25 Wildlife Technical Report occurring along the Cache la Poudre River, St. Vrain Creek, South Platte River, Fossil Creek, Big Thompson River, and Little Thompson River.

Primary functions and values associated with *Moderate Quality Wetlands* can be summarized as follows:

- ▶ Fish and Wildlife habitat - 50-75% of the streambank/shoreline is shaded by wetland vegetation or associated riparian area providing nesting habitat for migratory and resident bird species, foraging options for herbivores, organic matter for consumption by aquatic invertebrates which in turn provide food for other fish and vertebrate animals,
- ▶ Habitat diversity - Based on the presence of two wetland vegetation classifications and the presence of associated/adjacent riparian zones,

- ▶ Food Chain Support/Production Export - Based on the presence of permanent/perennial water, high to moderate habitat diversity, and high production potential of food products or other materials for fish and wildlife use,
- ▶ Flood Protection Potential - Based on the location of wetland bands to adjacent flows and wetland bands along banks and within the floodplain that are a minimum of 2-10 feet wide with scrub/shrub or mature woody vegetation,
- ▶ Bank/Shoreline Stabilization - Wetlands are located along the banks of permanent/perennial waterways with greater than 30 percent of rooted vegetation stabilizing bank and shoreline edges,
- ▶ Water Quality Improvement: These wetlands receive direct discharge of sediments, nutrients, toxicants from various sources which are trapped and processed prior to entering waterways; wetlands are also located adjacent to known area of flooding/ponding,
- ▶ Groundwater Recharge/Discharge - Wetlands contain normal plant growth during a dormant season or drought, wetlands are found at the toe of natural slope, and these areas may contain permeable substrate.

Primary functions and values associated with *Low Quality Wetlands* can be summarized as follows:

- ▶ Vegetative habitat support – Based on the presence of emergent vegetation that may provide shade, cover, or foraging supplies for wildlife species,
- ▶ Water quality improvement – The majority of *Low Quality Wetlands* are along roadsides and drainage ditches, which effectively trap pollutants from roadway and site runoff before they can reach higher quality waterways
- ▶ Food chain support/production export – wetland locations along ditches or ephemeral waterways provide habitat for insects fed upon by songbirds and seeds that can be used by local wildlife species

ENVIRONMENTAL CONSEQUENCES

Environmental consequences include impacts to wetland and other waters from all improvements within an alternative (e.g. interchanges, structural improvements, safety upgrades, feeder bus, and maintenance facilities). Determination of impacts was done by overlaying GIS data for package construction footprints over GIS data for existing resources. Only those components that would impact these resources are presented. As a result, not every component included in an alternative is presented. Mitigation measures are also described.

Package A Impacts

Components of Package A include safety improvements, construction of additional general purpose lanes on I-25, structure upgrades, and the implementation of commuter rail and commuter bus service. Development of these components would result in impacts totaling an estimated 17.48 acres of wetlands, and 1.86 acres of other waters (**Table 3**). Wetlands

rated as *High and Moderate Quality Wetlands*, within the project area, occur adjacent to major waterways within the project area and impacts to these areas are shown in **Table 4**.

Table 3 Direct Impacts to Wetlands and Other Waters from Package A Components

Package A		PEM* (acres)	PSS** (acres)	Other Waters (acres)		Totals (acres)
				Open Water	Waters of the U.S.	
<i>Safety Improvements</i>						
A-H1	SH 1 to SH 14	0	0	0	0	0
<i>General Purpose Lanes</i>						
A-H2	SH 14 to SH 60	7.00	1.42	0.57	0.85	9.84
A-H3	SH 60 to E 470	4.07	0.77	0	0.42	5.26
<i>Structure Upgrades</i>						
A-H4	E 470 to US 36	0	0	0	0	0
<i>Commuter Rail</i>						
A-T1	Ft. Collins to Longmont	0.51	0.23	0	0	0.74
A-T2	Longmont to North Metro Denver	1.28	2.20	0	0.02	3.50
<i>Commuter Bus</i>						
A-T3	Greeley to North Metro Denver	0	0	0	0	0
A-T4	Greeley to DIA	0	0	0	0	0
<i>Commuter Rail Stations</i>						
<i>Maintenance Facilities</i>						
Package A Totals:		12.86	4.62	0.57	1.29	19.34

Note: Jurisdictional status of impacted wetlands will be determined by a USACE official as part of a jurisdictional determination; totals account for both jurisdictional and non-jurisdictional wetland impacts. All totals are considered as areas of unavoidable/permanent wetland impact.

*PEM = Palustrine emergent wetland

**PSS = Palustrine scrub-shrub wetland

Table 4 Impacts to Wetlands and Other Waters Specific to Major Waterways within the Project Area Associated with Development of Package A

Waterway	PEM* (acres)	PSS** (acres)	Other Waters ***(acres)		Totals (acres)
			Waters of the U.S.	Open Water	
Big Dry Creek	--	--	--	--	--
Big Thompson River	0.17	0.24	0.15	0	0.56
Boxelder Creek	0.09	0.04	0.05	0	0.18
Cache la Poudre River	0.60	0.42	0.15	0	1.17
Fossil Creek	0.36	--	--	0	0.36
Little Dry Creek	0.09	--	--	0	0.09
Little Thompson River	0.04	0.21	0.09	0	0.34
South Platte River	--	--	--	--	--
St. Vrain Creek	0.08	--	--	0	0.08
Package A Totals	1.43	0.91	0.44	0	2.78

Note: Jurisdictional status of impacted wetlands will be determined by a USACE official as part of a jurisdictional determination; totals account for both jurisdictional and non-jurisdictional wetland impacts. All totals are considered as areas of unavoidable/permanent wetland impact.

*PEM = Palustrine emergent wetland

**PSS = Palustrine scrub-shrub wetland

Safety Improvements

Safety improvements proposed in Package A would have no direct or indirect impacts on wetlands or other waters.

General Purpose Lanes

Under Package A, one additional northbound and one additional southbound general purpose lane would be constructed between SH 14 and SH 60 and SH 60 and E-470. Implementation of the general purpose lanes for Package A would affect 15.10 acres of wetlands and other waters. The majority of impacts associated with this component would be associated with construction activities requiring clearing, grading, or vegetation removal adjacent to and in the floodplains of perennial waterways. Impacts are primarily anticipated to occur along Big Dry Creek, Big Thompson River, Cache la Poudre River, Fossil Creek, Little Dry Creek, Little Thompson River, South Platte River, and St. Vrain Creek. Wetland types that would be impacted are palustrine scrub/shrub and palustrine emergent wetland communities with associated riparian buffers.

The construction of general purpose lanes proposed under Package A would have direct impacts to wetlands and other waters within the alternative footprint as a result of fill placement caused by construction of transportation improvements, such as roadway widening and realignment, new alignments, and intersection improvements.

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Structure Upgrades

Package A would provide structural upgrades between E 470 and US 36. There are no wetlands present within construction areas, therefore the proposed structure upgrades under Package A would have no direct or indirect impacts on wetlands or other Waters of the U.S.

Commuter Rail

Package A includes the construction of a commuter rail line from Fort Collins to Longmont, continuing from Longmont to FasTracks North Metro Corridor. Commuter rail installations and stations would affect 4.24 acres of wetlands and other waters.

Components A-T1 and A-T2 would have direct impacts to wetlands and other waters within the alternative footprint as a result of fill placement caused by construction of railway components, such as track installation and alignment, maintenance facilities, and station locations. The majority of impacts for these components would occur along Big Thompson River, Cache la Poudre River, Fossil Creek, Little Thompson River, St. Vrain Creek, and Big Thompson River. Wetland types that would be impacted are palustrine scrub/shrub and palustrine emergent wetland communities with associated riparian buffers.

Commuter Bus

Package A includes the addition of commuter bus service and associated stations between Greeley, Denver, and DIA. The commuter bus lines would operate on existing roadways and would have no direct or indirect impacts to wetlands or other waters. Stations are immediately adjacent to the roadway and would have no direct or indirect impacts to wetlands or other waters.

Package B Impacts

Development of these components would result in impacts totaling an estimated 18.11 acres of potentially jurisdictional wetlands and 2.27 acres of other waters. (**Table 5**). Wetlands rated as *High and Moderate Quality Wetlands*, within the project area, occur adjacent to major waterways within the project area and impacts to these areas are shown in **Table 6**.

Table 5 Direct Impacts to Wetlands and Other Waters from Package B Components

Package B		PEM* (acres)	PSS** (acres)	Other Waters (acres)		Totals (acres)
				Waters of the U.S.	Open Water	
<i>Safety Improvements</i>						
BH-1	SH 1 to SH 14	0	0	0	0	0
<i>Tolled Express Lanes</i>						
BH-2	SH 14 to SH 60	9.78	1.90	1.04	0.71	13.43
BH-3	SH 60 to E 470	4.25	0.81	0.43	0	5.49
BH-4	E 470 to US 36	0.53	0.32	0.09	0	0.94
<i>Bus Rapid Transit</i>						
B-T1	Ft. Collins/Greeley to North Metro Denver	0	0	0		0
B-T2	Ft. Collins to DIA	0	0	0		0
<i>BRT Stations</i>						
	Ft. Collins to Greeley	0.52	0	0		0.52
	Ft. Collins to North Metro Denver	0	0	0		0
	Metro Denver to DIA	0	0	0		0
<i>Maintenance Facilities</i>						
	Package B Totals:	15.08	3.03	1.56	0.71	20.38

Note: Jurisdictional status of impacted wetlands will be determined by a USACE official as part of a jurisdictional determination; totals account for both jurisdictional and non-jurisdictional wetland impacts. All totals are considered as areas of unavoidable/permanent wetland impact.

*PEM = Palustrine emergent wetland

**PSS = Palustrine scrub-shrub wetland

Safety Improvements

Safety improvements proposed in Package B would have no direct or indirect impacts on wetlands or other waters.

Tolled Express Lanes

Under Package B, a northbound and southbound tolled express lane would be constructed from SH 14 to SH 60, SH 60 to E 470, and E 470 to US 36. The construction of tolled express lanes would affect 19.86 acres of wetlands and other waters. The majority of impacts associated with this component would be associated with construction activities requiring clearing, grading, or vegetation removal adjacent to and in the floodplains of perennial waterways. Impacts are primarily anticipated to occur along Big Dry Creek, Big Thompson River, Cache la Poudre River, Fossil Creek, Little Dry Creek, Little Thompson River, South Platte River, and St. Vrain Creek. Wetland types that would be impacted are palustrine scrub/shrub and palustrine emergent wetland communities with associated riparian buffers.



Table 6 Impacts to Wetlands and Other Waters Specific to Major Waterways within the Project Area Associated with Development of Package B

Waterway	PEM (acres)*	PSS** (acres)	Other water (acres)		Totals (acres)
			Waters of the U.S.	Open Water	
Big Dry Creek	0.08	0.01	0.05	0	0.14
Big Thompson River	0.17	0.17	0.15	0	0.49
Boxelder Creek	0.11	0.04	0.06	0	0.21
Cache la Poudre River	0.71	0.70	0.20	0	1.61
Fossil Creek	0.34	--	--	--	0.34
Little Dry Creek	0.08	--	--	--	0.08
Little Thompson River	0.04	0.21	0.09	0	0.35
South Platte River	<0.01	--	--	--	<0.01
St. Vrain Creek	--	--	--	--	--
Package B Totals	1.54	1.13	0.55	0	3.22

Note: Jurisdictional status of impacted wetlands will be determined by a USACE official during an on-site jurisdictional determination; totals account for both jurisdictional and non-jurisdictional wetland impacts. All totals are considered as areas of unavoidable/permanent wetland impact.

*PEM = Palustrine emergent wetland

**PSS = Palustrine scrub-shrub wetland

Bus Rapid Transit

Package B includes the addition of BRT from Fort Collins and Greeley to North Metro Denver and to DIA. BRT would operate on existing roadways or share the tolled express lanes and would not result in direct or indirect impacts on existing wetland resources; however, installation of BRT stations would impact 0.52 acre of wetlands and other waters.

The proposed BRT project activity would have direct impacts to wetlands and other waters within the alternative footprint as a result of fill placement caused by construction of BRT stations. Impacts for this component would be associated with two small, isolated depressions. Wetland types that would be impacted are palustrine emergent wetland communities.

Indirect Impacts Common to Both Packages

Both Package A and Package B would cause indirect effects to wetlands located within and adjacent to areas of construction. The following indirect effects are common to build packages for general purpose lanes, commuter rail, commuter rail stations, commuter bus, tolled express lanes, BRT stations, and maintenance facilities.

Most indirect effects would result from the increase in impervious surfaces caused by additional lanes or added road shoulders. The greater area of impervious surfaces would be expected to increase roadway and new bus/train station runoff, surface flows in adjacent streams, erosion, and the creation of channels in wetlands that were previously free of

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channelization. New flows could contain pollutants associated with roadway runoff. Sediment from winter sanding operations, especially with additional roadway lanes, would likely accumulate in wetlands and drainages. De-icers, such as magnesium chloride, petroleum products, and other chemicals, would likely reduce water quality, thus impacting wetland plants and wildlife. Additional sediment and erosion would be expected during and after construction until bare fill and cut slopes could be successfully revegetated.

Other indirect wetland effects include the decrease or elimination of upland tree and/or shrub buffers between the proposed roadway/rail corridor and wetlands adjacent to other aquatic sites. Buffers filter pollutants before they reach wetlands, streams, and lakes as well as provide habitat for wildlife.

Because proposed roadway and/or rail alignments primarily follow existing lines, many wetlands currently receive indirect effects from general activity and maintenance practices. However, the magnitude of indirect effects would increase with increased area of roadway and rail corridors.

Indirect impacts resulting from project induced growth, transit oriented development, and carpool lots are discussed within **Section 3.1.5.2 Land Use and Zoning Environmental Consequences** of this DEIS.

MITIGATION

Per Section 404 of the Clean Water Act, impacts to wetlands and other waters must be avoided, minimized, or mitigated (in order of preference). Although the Act requires compensatory mitigation only for those wetlands considered jurisdictional by the USACE, it is FHWA and CDOT policy to mitigate all wetlands impacts (jurisdictional and non-jurisdictional) at a 1:1 ratio. All impacted wetlands would be mitigated in accordance with the USACE mitigation policies, and the conditions of the USACE Section 404 Permit. All mitigation plans would be developed in coordination with the USACE and other appropriate agencies during the Section 404 permitting process. In addition, all mitigation for the wetlands as a result of the North I-25 project would be done in accordance with CDOT, FHWA (23 CFR 777).

Impacts to wetlands and other waters will be avoided and minimized to the greatest extent possible during preliminary and final design through the use of established and approved best management practices (BMP's). During this conceptual design phase, roadway improvements, rail alignments, and retaining walls were located to reduce fill in wetlands where practicable.

For federally funded transportation projects, TEA-21 provisions state a preference for the use of wetland mitigation banks to compensate for unavoidable impacts to other waters, including wetlands. There are three wetland mitigation banks in the North I-25 DEIS study area that could serve the project. They are Mile High Wetland Mitigation Bank, South Platte Wetland Mitigation Bank, and the Riverdale Wetland Mitigation Bank. Impacts south of Highway 66 are within these banks' primary service areas and can provide mitigation credit at a 1:1 ratio. Project impacts north of Hwy 66 are generally within the secondary service area and provide mitigation credit at a higher ratio. Acceptance of mitigation bank credit as compensation for impacts depends on the banks' ability to replace the impacted wetland

functions and agreement from regulatory agencies, primarily the Omaha District of the U.S. Army Corps of Engineers and EPA.

Where wetland functions can not be replaced by banking, potential mitigation sites have been identified on public lands within the study area. They include the St. Vrain State Park, Big Thompson Ponds State Wildlife Reserve and a CDOT-owned rest area site north of the Cache de Poudre River. For example, if impacted wetland functions include floodplain attenuation or wildlife habitat, these public lands located along a regional river corridor would provide functional replacement unavailable at the three wetland mitigation banks.

Wetland mitigation can be implemented either on-site or off-site such as with the purchase of credit at an USACE approved wetland mitigation bank. On-site mitigation can maintain the existing level of functions of impacted wetlands and is generally preferred, especially for streambank wetlands. Off-site mitigation is preferred when on-site mitigation is not possible, not likely to succeed, or if the functions of on-site mitigation areas would be low. Success factors considered during mitigation analysis include location of possible mitigation sites, adequacy and reliability of supportive hydrology, water rights issues, wetland functions, and seasonal timing of mitigation construction.

To facilitate proper coordination and development of measures to avoid and minimize impacts to wetlands, an on-site field meeting was held in April 2007 that included representatives from USACE, EPA, USFWS, CDOT, CDOW, and the project team. At the field meeting the agencies requested that CDOT investigate the option of narrowing the rural median at the Big Thompson River crossing. Preliminary investigations indicate this design option could be feasible. This is a design option that would minimize impact. It will be examined in more detail between the DEIS and the FEIS.

During construction, best management practices will be used to avoid indirect construction impacts to wetlands and other waters. Material and equipment will be stored outside of wetland areas and drainages that could carry toxic materials into wetlands. Construction fencing will be used to mark wetland boundaries and sensitive habitats during construction.

EPA Section 404(b)(1) guidelines require that impacts to wetlands be avoided and minimized to the greatest extent practicable. The USACE compensatory mitigation will be considered only when it was shown that the least environmentally damaging practicable alternative (LEDPA) was selected to meet the project's purpose and need.

Approximately 438 acres of wetlands and other waters were identified within the Package A project area. Of that total, 19.34 acres of wetlands are anticipated to be impacted from project construction activities. Approximately 345 acres of wetlands were identified within the Package B project area. Of that total, 20.38 acres of wetlands are anticipated to be impacted.

A preferred alternative that is made from a blend of components between Package A and Package B may be chosen, in which case the impacts will be calculated and the determined acreage of impacts would be used in the Section 404 Permit. Final determination of USACE jurisdiction over the delineated wetlands will be made by the USACE based on new guidance from the national headquarters of USACE and EPA offices in response to the

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recent Supreme Court decision. All of this information will be submitted to the USACE concurrent with the public release of the Final EIS.

Once wetland impacts are avoided and minimized to the greatest extent possible, compensatory wetland mitigation will be considered. Mitigation is required for both wetlands under USACE jurisdiction and non-jurisdictional wetlands, per FHWA and CDOT directive.

The following mitigation goals are appropriate for unavoidable impacts to wetlands within the build packages project areas:

1. Wetland mitigation banks offer wetland mitigation credit for purchase to cover unavoidable impacts from construction of the preferred alternative. There are three wetland mitigation banks that could serve the project area: the Middle South Platte, the Mile High, and the Riverdale. These banks have wetland credits available for purchase.
2. Impacted wetlands will be replaced with in-kind wetland plant communities with same wetland functions on-site or on nearby public lands within the same drainage basin, if practicable. Both the physical source of water and the legal availability of the water supply will be considered when evaluating wetland mitigation sites. St. Vrain State Park, the Big Thompson Ponds State Wildlife Area, and the CDOT I-25 rest stop near the Poudre River are three potential wetland mitigation sites to explore with CDOW and USACE.

For CDOT/FHWA mitigation, a decision-making process for the selection of wetland mitigation sites on CDOT projects was established in May of 2004. This process generated a Wetland Mitigation Site Selection Form that is to be followed when determining the feasibility of a wetland mitigation site location after all possible wetland impact avoidance and minimization techniques have been used.

Final site selection would be based on the installation of groundwater monitoring wells for the purpose of assessing groundwater flow in the area. The wells would be monitored for a minimum of one year. Well data should be collected weekly during the growing season. The well data would be used to determine if the site is suitable and, if needed, the wells could be monitored during final design.

Once a mitigation site is selected and final impacts are known, a detailed mitigation plan would be developed. The plan would describe all phases of wetlands mitigation, including site layout, shallow groundwater monitoring well installation, construction details, and success monitoring. Specifically, the plan would include:

A detailed base map outlining the exact location of the site(s).

- A detailed grading plan based on the well data collected.
- A detailed planting plan that shows different planting zones and includes the placement of herbaceous plant stock (collected on-site, if possible), willow cuttings (collected on-site, if possible), trees, and other shrubs.
- A detailed seed and plant mix including an upland seed mix with grasses, forbs, and shrubs to be used in adjacent areas.

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- Direction to collect and direct transplant of wetland plugs shall also be utilized for the mitigation area.
- Information on the sources and quantities of seed and plants to be used.
- Details on the source(s) of wetland hydrology.
- Details on construction methods, timing, and sequencing.
- A detailed success monitoring plan.

The mitigation success monitoring for any site would include the requirements defined by the USACE and details for the short- and long-term management and maintenance of the site. The success of the site is typically determined by the USACE and is based on the compliance with the success criteria written into the Section 404 Permit. Non-jurisdictional wetland mitigation will fall under the same criteria for success as the jurisdictional wetlands.

3. All appropriate best management practices to prevent damage to adjacent wetlands will be followed during project construction.

In the case of temporary impacts, when construction of a particular area is completed, the fill would be removed and the wetland area would be re-graded and re-vegetated, if necessary, to restore the original wetland condition.

Indirect impacts to wetlands such as changing drainage patterns, increasing runoff volumes, changing wetland hydrology, and increasing delivery of non-point source pollution such as sediment, de-icer, and petroleum products could result from increasing the impervious surface area of the roadway. These effects will be minimized by implementing construction and post-construction BMPs, such as maintenance of vegetation adjacent to the construction footprint or catchments and proper treatment of runoff.

CONCLUSION

A total of 2,269 wetlands have been identified within the project package alignments for the North I-25 project. Package A project alignments contain approximately 438 acres of existing wetlands and Package B contain approximately 345 acres of existing wetlands.

The 438 acres of existing wetland areas identified within Package A include 83.71 acres of palustrine scrub/shrub wetlands, 315.30 acres of palustrine emergent wetlands, and 39.5 acres of other waters. Based on proposed project activities, a total of 19.34 acres of impact to wetlands and other waters are anticipated in Package A including 4.62 acres of impact to palustrine scrub/shrub wetlands, 12.86 acres to emergent wetlands, and 1.86 acres of impact to other waters.

The 345 acres of existing wetland areas identified in Package B include 66.80 acres of palustrine scrub/shrub wetlands, 234.38 acres of palustrine emergent wetland, and 43.5 acres of other waters. Based on proposed project activities, a total of 20.38 acres of impact to wetlands and other waters are anticipated in Package B including 3.03 acres of impact to palustrine scrub/shrub wetlands, 15.08 acres to emergent wetlands, and 2.27 acres of impact to other waters.

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Direct impacts to wetlands and other waters within Package A and Package B footprints would occur primarily from fill placement caused by construction of transportation improvements, such as roadway widening and realignment, new alignments, and intersection improvements. Indirect effects/impacts from both build packages would result primarily from the increase in impervious surfaces caused by additional lanes or added road shoulders.

Wetlands in the North I-25 project area provide a variety of functions that are dependent on many factors including the size of the wetland, topography, geology, hydrology, types and distribution of habitat present, condition of adjacent upland, and disturbance history. Due to project package alignments being located on existing transit lines and roadways, a majority of wetlands identified within the alignments occur in areas of recent man-made disturbance and are thereby limited in the functions and values they provide leading to a *Low Quality* wetland function and value classification. Primary functions provided by *Low Quality* wetlands within the project area include vegetative habitat support, water quality improvement, and minor food chain support.

Most wetland complexes associated with the banks, floodplains, and adjacent riparian areas of perennial waterways within project alignments were classified as *Moderate Quality* wetlands based on high to moderate ratings for a variety of functions and values. Wetlands identified as *Moderate Quality* within the project area were located adjacent or in association with established perennial and intermittent waterways including Boxelder Creek, Cache la Poudre River, Fossil Creek, Big Thompson River, South Platte River, Little Thompson River, St. Vrain Creek, Little Dry Creek, and Big Dry Creek. Primary functions provided by *Moderate Quality* wetlands within the project area include fish and wildlife habitat, habitat diversity, food chain support/production export, flood protection potential, bank/shoreline stabilization, water quality improvement, and ground water discharge/recharge potential.

Very few wetland locations within the project area were classified as *High Quality Wetlands*. All *High Quality Wetlands* identified within the project area were classified as such due to presence of threatened or endangered species habitat and/or use.

CDOT currently works to achieve a “No-Net-Loss” wetland goal by mitigating for impacts to both jurisdictional and non-jurisdictional wetlands. For the North I-25 Transportation Project, an application for a Standard Section 404 Individual Permit will be required based on the large volume of wetlands and anticipated impacts within proposed package alignments. Based on guidelines established in the NEPA/404 Merger Process, the North I-25 application for a Standard Section 404 IP will be submitted coincident with the FEIS. Upon review of the final documentation, the USACE will issue a Standard IP based on the results of the North I-25 FEIS.

Many project area wetlands have an apparent connection to other waters, and are anticipated to be considered jurisdictional by the USACE. Final wetland jurisdictional status will be determined by the USACE. However, jurisdictional and non-jurisdictional wetlands will be included in all levels of data analysis. In accordance with Executive Order 11990 “Protection of Wetlands”, and FHWA and CDOT policies, all impacts to wetlands will be mitigated.



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Impacts to wetlands will be avoided and minimized to the greatest extent possible during preliminary and final design. It is CDOT and FHWA policy to mitigate all wetlands impacts (jurisdictional and non-jurisdictional) at a 1:1 ratio. All impacts to wetlands and other water features will be avoided, minimized, and mitigated.

Summary of Mitigation Approach:

- ▶ Wetland impacts will be mitigated on a 1:1 basis
- ▶ In accordance with mitigation guidance provided by TEA-21, preference will be made to the purchase of mitigation banking credits if the functions of impacted wetlands can be matched
- ▶ Where wetland functions can not be replaced, potential mitigation sites have been identified on public lands within the study area.

Table 7 Vegetation of the North I-25 Project Area Wetlands

Common Name	Scientific Name	Wetland Indicator Status
Alkali bulrush	<i>Schoenoplectus maritimus</i>	NL
Arctic rush	<i>Juncus arcticus</i>	FACW
Aspen	<i>Populus tremuloides</i>	FAC
Austrian pine	<i>Pinus nigra</i>	NL
Blue spruce	<i>Picea pungens</i>	FAC-
Boxelder	<i>Acer negundo</i>	FAC
Canada thistle	<i>Cirsium arvense</i>	FACU
Chokecherry	<i>Padus/Prunus virginiana</i>	FACU
Common dandelion	<i>Taraxacum officinale</i>	FACU+
Crack willow	<i>Salix fragilis</i>	FAC
Curly dock	<i>Rumex crispus</i>	FACW
Dogbane	<i>Apocynum spp.</i>	NL
Douglas fir	<i>Arceuthobium douglasii</i>	NL
Duckweed	<i>Lemna spp.</i>	OBL
Emory sedge	<i>Carex emoryi</i>	OBL
Green Ash	<i>Fraxinus pennsylvanica</i>	FACW
Hoary cress	<i>Cardaria draba</i>	NL
Kochia	<i>Bassia scoparia</i>	FACU
Milkweed	<i>Asclepias speciosa</i>	FACW
Narrow-leaved cattail	<i>Typha angustifolia</i>	OBL
Nebraska sedge	<i>Carex nebrascensis</i>	OBL
Peachleaf willow	<i>Salix amygdaloides</i>	FACW
Plains cottonwood	<i>Populus deltoides ssp. monilifera</i>	FACW
Ponderosa pine	<i>Pinus ponderosa</i>	FACU-
Pursh seepweed	<i>Suaeda calceoliformis</i>	FACW
Quackgrass	<i>Elymus repens</i>	FACU
Redtop	<i>Agrostis gigantea</i>	FACW
Reed canarygrass	<i>Phalaris arundinacea</i>	FACW+

Table 7 Vegetation of the North I-25 Project Area Wetlands

Common Name	Scientific Name	Wetland Indicator Status
Russian olive	<i>Elaeagnus angustifolia</i>	FAC
Narrowleaf willow	<i>Salix exigua</i>	OBL
Scotch thistle	<i>Onopordum acanthium</i>	NL
Scouring-rush (Horsetail)	<i>Equisetum hyemale</i>	FACW
Siberian elm	<i>Ulmus pumila</i>	NL
Smooth brome	<i>Bromus inermis</i>	NL
Spikerush	<i>Eleocharis palustris</i>	OBL
Watercress	<i>Nasturtium officinale</i>	OBL
Wood's rose	<i>Rosa woodsii</i>	FAC-

Note: Species identified from November 2007 USDA website database <http://plants.usda.gov/>

Wetland Indicator Status Definitions:

Obligate Wetland (OBL)—species that almost always (>99% probability) occur in wetlands.

Facultative Wetland (FACW)—species that usually (67 to 99% probability) occur in wetlands.

Facultative (FAC)—species that are equally likely (33 to 67% probability) to occur in wetlands or uplands.

Facultative Upland (FACU)—species that usually (67 to 99% probability) occur in uplands.

+ = more frequently found in wetlands; - = less frequently found in wetlands.

Not Listed (NL)—not an indicator species.

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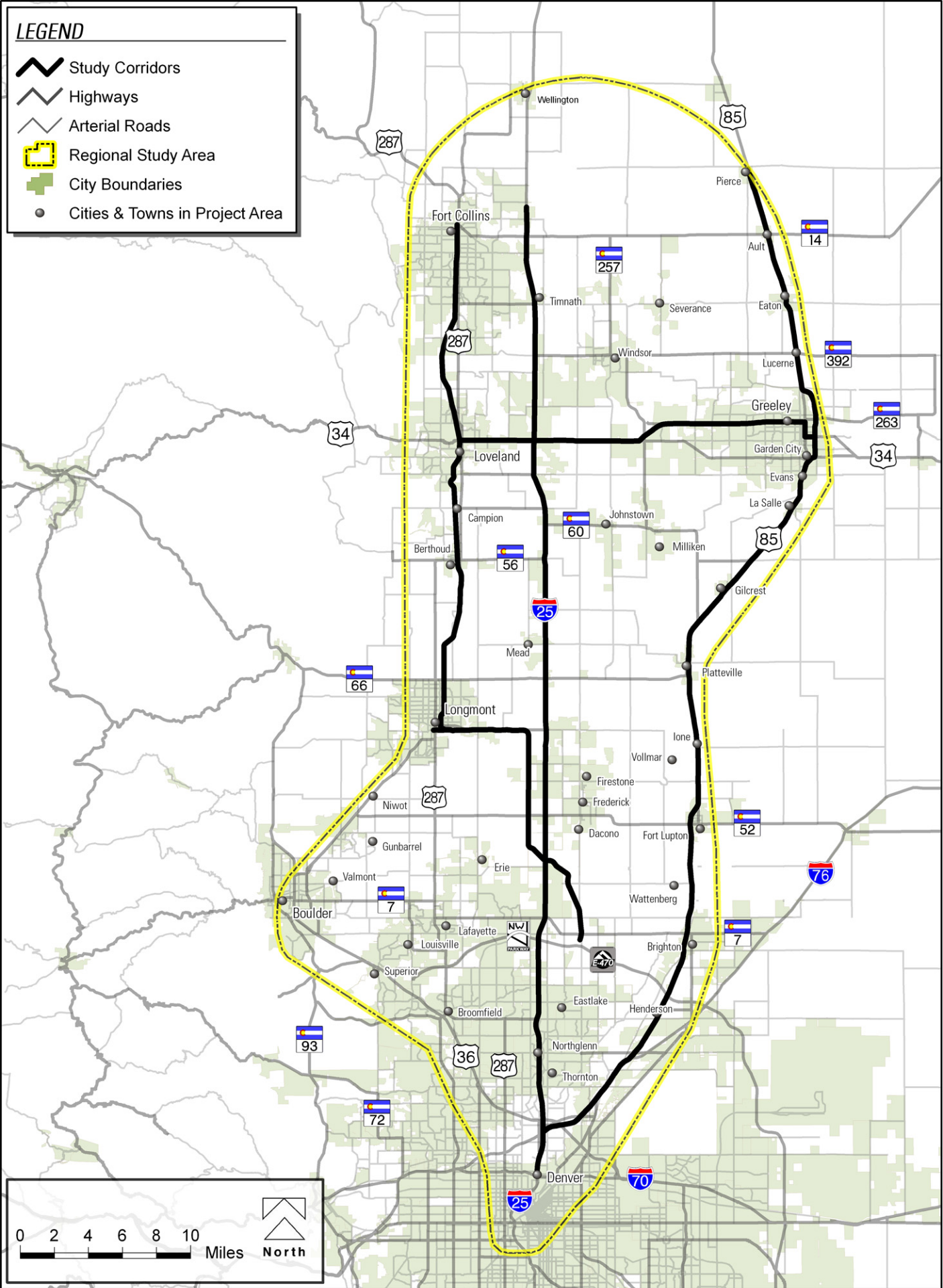
APPENDIX A

Project Area Vicinity and Package Map

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LEGEND

-  Study Corridors
-  Highways
-  Arterial Roads
-  Regional Study Area
-  City Boundaries
-  Cities & Towns in Project Area



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APPENDIX B

Wetland Delineation Forms, Function and Value Forms, and Representative Site Pictures

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Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

page 9

Project, City/County, State: NI 25 RR

Applicant/Owner: _____ Site: 8-Inv. Ditch N of 21st Ave

Investigator: Backus & Stoneman Date: 6-1-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Carex emoryi</u>					

I - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # D4 → NW *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Soils: Wetland soils present? Yes No

Soil map unit series and phase: _____ Hydric soils list? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H₂S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)

Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water _____ Depth to free water in pit _____ Depth to saturated soil _____

Water sources: ditch flows

Goes to: _____

Secondary wetland hydrology indicators:

Secondary indicators (need 2 or more):

- Undated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- Ripples
- Recent deposits
- Rainage pattern in wetlands

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No



North I-25
D4
6-1-06
Site 8—NW

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR page 11
 Applicant/Owner: _____ Site: 7 - Irrigation Ditch
 Investigator: Backus & Stoneham Date: 6-1-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

*Wetland E of RR only
 concrete lined ditch w/ RR*

Dominant species	Layer	Status	Dominant species	Layer	Status
<i>Carex emoryi</i>					

I - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # D2-75E *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

*Asclep spec
 Thalactrium*

Soils: Wetland soils present? Yes No

Soil depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H₂S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)

Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water None Depth to free water in pit No pit Depth to saturated soil 3" w/ probe

Water sources: Ditch flows

Goes to: _____

Primary wetland hydrology indicators:

Secondary indicators (need 2 or more):

- Undated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- Ripples
- Recent deposits
- Drainage pattern in wetlands

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No



North I-25
D3
6-1-06
Site 7—W, west side



North I-25
D2
6-1-06
Site 7—NW

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR 2 W 5 N of watch rd - no wet in row
 Applicant/Owner: _____ Site: 6 Page 20
 Investigator: Backus + Stoneman Date: 6-1-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

Irrigation ditch
Wet in row west of RR only

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Carex emoryi</u>					

I - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.
 Photo # D1 → W *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Soils: Wetland soils present? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No
					Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H₂S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)

Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water 2-3" Depth to free water in pit no pit Depth to saturated soil _____

Water sources: ditch flows

Goes to: _____

Secondary wetland hydrology indicators:

- Undated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- Ripples
- Eolian deposits
- Drainage pattern in wetlands

Secondary indicators (need 2 or more):

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No



North I-25
D1
6-1-06
Site 6
pg 20



North I-25
C23
6-1-06
Ditch—E
W? 5
pg 18



North I-25
C24
6-1-06
Ditch
W? 5
pg 18



North I-25
C25—W
6-1-06
Pg 18

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

pg 17

Project, City/County, State: NI 25 RR

Applicant/Owner: _____ Site: 3 - Little Thompson River check

Investigator: Backus + Stoneman Date: 6-1-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: _____
 Vegetation: Wetland vegetation present? Yes No 2' wide wetland bands
SE bank - active erosion - few clumps of wetland

Dominant species	Layer Status	Dominant species	Layer Status
<u>Carex emergens</u>		<u>many Swallows</u>	
<u>Phalaris amabilis</u>			

I - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # F17 -> NE *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)
C18 -> NW Filled bank - steep - 11 quoniam
C19 -> W 1 medium Pale NW bank
1 clear SW bank

Wetland soils present? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No
					Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H₂S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Wetland hydrology present? Yes No

Depth of surface water 20' wide Depth to free water in pit No pit Depth to saturated soil _____

Water sources: Little Thompson R. Goes to: _____
 Secondary indicators (need 2 or more):
 Oxidized root channels in upper 12"
 Water-stained leaves
 Local soil survey data
 Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
C17
6-1-06
Site 3—NE
pg 17



North I-25
C18
6-1-06
Site 3—NW
pg 17



North I-25
C19
6-1-06
Ditch
Site 3—W
pg 17

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR

Applicant/Owner: _____ Site: 2, Page 16
 Investigator: Backus + Stoneman Date: 6-1-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

marsh to w of RR
FROGS

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Typha</u>					
<u>Eleocharis pal</u>					

I - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # C14 -> NW *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)
C15 -> N
Cardata diaba invading + Kochi -
Minor Saex CAEM on west side embankment

Soils: Wetland soils present? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H2S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled

- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water None in RW Depth to free water in pit No pit Depth to saturated soil No pit
 Water sources: Shallow swale dammed by RR Goes to: Block - ditch + adjacent under RR

- Wetland hydrology indicators:
- Undated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - Ripples
 - Recent deposits
 - Drainage pattern in wetlands
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No



North I-25
C14
6-1-06
Site 2—NW
pg 16



North I-25
C15
6-1-06
Site 2—N
pg 16



North I-25
C13—NE, old marsh
6-1-06
pg 15



North I-25
C16
6-1-06
Site 2 outlet
E of RR—E

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

Project/Site: <u>0531 W6</u>	Date: <u>05/31/06</u>
Applicant/Owner: _____	County: <u>Gar. Co.</u>
Investigator: <u>Stoneman/Krupp</u>	State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input checked="" type="radio"/> No
	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Sedge (Sample)</u>	<u>Dom</u>		9. _____		
2. <u>Cattail</u>	<u>Dom</u>		10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
			16. _____		

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

Remarks: Sedge is the only plant within the wetland band for approximately _____', cattail are dominant within small bulge @ outlet of pipe - sedge wetland band is 1-2' @ north, Cattail bulge is approximately 8-10' in diameter. Sedge mixed in. GPS offset 7' to the west

only on western side of ditch

East wetland 1-2' band no offset - 100% sedge

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>4'</u> (in.) Depth to Free Water in Pit: <u>4'</u> (in.) Depth to Saturated Soil: <u>0'</u> (in.)	

Remarks:

SOILS

Map Unit Name
 (Series and Phase): no soil pit-

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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Vegetation is 100% Faew or Obl

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks:



North I-25
W6—North
5-31-06
Pg. 25



North I-25
W6—Grand
5-31-06
Pg. 25

P9.2a

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

Project/Site: <u>0531 U4</u>	Date: <u>05/01/06</u>
Applicant/Owner: _____	County: <u>Lexing</u>
Investigator: <u>Stonerun/Knapp</u>	State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No	Plot ID: _____
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>This location contains</u>			9. _____		
2. <u>the same species as 0531 U3 West</u>			10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
			16. _____		

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

Remarks: Wetland band 5'-6' offset was 5' to the east of the wetland band

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ <u>0</u> (in.) Depth to Free Water in Pit: _____ <u>0</u> (in.) Depth to Saturated Soil: _____ <u>0</u> (in.)	
Remarks: <u>Standing water 2" deep</u>	

SOILS

Map Unit Name
(Series and Phase): No pit - (see below)

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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Species were 100% Facca obl.
stands/rounded into obsourd
soil pit not needed

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks:

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

Project/Site: <u>0531/WS</u> Applicant/Owner: _____ Investigator: <u>Spencer Knapp</u>	Date: <u>05/11/06</u> County: <u>Larimer</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>reed cany grass</u>	<u>dom</u>		9. _____		
2. <u>hem lock</u>			10. _____		
3. <u>peach leaf willow</u>			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
_____			16. _____		

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

Remarks: walked length of wetlands band width out 50' East w as noted in the GPS with about 8' ~~wide~~ stream in between

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ <u>6'</u> (in.) Depth to Free Water in Pit: _____ <u>6'</u> (in.) Depth to Saturated Soil: _____ <u>2'</u> (in.)	
Remarks: _____	

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1		duff from root aug			
0-6	A	sandy gravel no distinct color			Sandy gravel
6-12	B	10YR 3/1		Few dirt 10YR 2/1	silty clay loam

Hydric Soil Indicators:

- | | |
|---|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: 0-6 layers had too much contrast between gravel - said to get color -

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

Remarks:



North I-25
W4—SW
5-31-06
Pg. 29



North I-25
W4—NE
5-31-06
Pg. 29

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

P2, 29.30

Project/Site: <u>0531 W3 (East & West)</u> Applicant/Owner: _____ Investigator: <u>Stevenson Knapp</u>	Date: <u>05/31/06</u> County: <u>Lincoln</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>cattail</u>		<u>Edl</u>	9. _____		
2. <u>Nebraska Sedge</u>			10. _____		
3. <u>reed canary grass</u>			11. _____		
4. <u>corix (spp)</u>			12. _____		
5. <u>Coaly doc</u>			13. _____		
6. <u>See pic of plant w/ white flowers</u>			14. _____		
7. <u>rose</u>			15. _____		
			16. _____		

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

Remarks: All species are fac wet or obl, ditches 8' wetland band, East Sides Sedges + Salix ^{axillaris} offset on west 5' wetland band 10'-15' - receives flow from upland farm/as to east and NE

HYDROLOGY

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

Remarks: open water ± 3-4" deep in center of ditch 1-2' wide - some also south in center of channel. Pan evap prececd. likely less in front water

SOILS

Map Unit Name
 (Series and Phase): No soil pit taken (see below)

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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: No soil pit taken soil is saturated and plants are 100% FACW & OBL

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:



North I-25
W3—Grand
5-31-06
Pg. 29 to 30



North I-25
W3—S
5-31-06
Pg. 29 to 30



North I-25
W3—NW
5-31-06
Pg. 29 to 30

36

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

Project/Site: <u>053 W2 (includes east and west bands)</u>	Date: <u>05/3/06</u>
Applicant/Owner: _____	County: <u>Corral</u>
Investigator: <u>Stoneman/Knapp</u>	State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<input checked="" type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Yes <input type="radio"/> No
	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>cattail (latifolia)</u>		<u>Obl (Dom)</u>	9. _____		
2. <u>bullrush</u>	<u>7 Dom</u>	<u>FACW</u>	10. _____		
3. <u>Carex emoryi</u>		<u>Fach</u>	11. _____		
4. <u>arctic rush</u>			12. _____		
5. <u>curly top</u>			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

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

Remarks: WEST The 3 square section bullrush are dominant in the northern 30-35' of the wetland. The southern portion of the wetland is dominated by cattail with some arctic rush. On the west side bounded by concrete r.p. wall and beyond is a narrow pond from deep to water mg (is likely) to be coming from.

East Includes east orange wetland band 3-4' is rare species in long thin band but only with large pocket of cattail, GPS points offset 2 feet west

Recorded Data (Describe in Remarks):

Stream, Lake, or Tide Gauge

Aerial Photographs

Other

No Recorded Data Available

Field Observations:

Depth of Surface Water: _____ (in.)

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

Depth to Saturated Soil: _____ (in.)

Wetland Hydrology Indicators:

Primary Indicators:

Inundated

Saturated in Upper 12 Inches

Water Marks

Drift Lines

Sediment Deposits

Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 Inches

Water-Stained Leaves

Local Soil Survey Data

FAC-Neutral Test

Other (Explain in Remarks)

Remarks:

SOILS

Map Unit Name
(Series and Phase): No Soil pit (see below)

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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Soil pit was not taken due to 100% Facm & Obl. vegetation
water level was saturated @ top surface

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks: Water source is man-made pond. A pipe through the rip-rap and soil bank feeds the west wetland and a 2' foot metal pipe draws water from the west side, ~~that~~ runs under the RR track and feeds the east drainage/wetland.
(4 pictures) use pipe picture to get other pics w/ correct method



North I-25
W2—N
5-31-06
Pg. 36



North I-25
W2—west towards banks of man-
made pond
5-31-06
Pg. 36



North I-25
W2—N
5-31-06
Pg. 36

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: WI 25 RD

Applicant/Owner: _____ Site: 21 Pg 39

Investigator: Backus + Clarke Date: 5-25-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: Wet bands ~ 2' wide East side - begin ~ 15' from edge of br. West side - begin ~ 12' "

Vegetation: Wetland vegetation present? Yes No Handy Ditch?

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Phalaroides arundinacea</u>	<u>H</u>	<u>FACW+</u>			
<u>Sagittaria arifolia</u>	<u>H</u>	<u>OBL</u>			

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'

Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # c12 -> E c13 -> NE c14 -> W *Dominants = OBL, FACW, FAC _____% (Wetlands - 50% or greater of dominants = OBL, FACW, FAC

Recently burned
ORV track on East side - 6' wide
3' wide on West side edge of wing walls

Soils: Wetland soils present? Yes No

Map unit series and phase: _____ Hydric soils list? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H2S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACV

Hydrology: Wetland hydrology present? Yes No

Depth of surface water _____ Depth to free water in pit _____ Depth to saturated soil _____

Water sources: _____ Goes to: _____

- Primary wetland hydrology indicators:
- Inundated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - drift lines
 - Sediment deposits
 - Drainage pattern in wetlands
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
C12
5-25-06
Site 21—E



North I-25
C13
5-25-06
Site 21—NE



North I-25
C14—NE
5-25-06
Site 21—W

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI-25 RR
 Applicant/Owner: _____ Site: 20 West Pg 39
 Investigator: Backus + Clarke Date: 5-25-04 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

East of RR ditch is dry w/ Kachra in bottom CS → NE

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Typha angustifolia</u>	<u>H</u>	<u>OBL</u>			

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # C7 → W *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC

metal pipe under RR is 2/3 blocked w/ gravel to level a 1' above ditch bottom

Soils: Wetland soils present? Yes No

Map unit series and phase: _____ Hydric soils list? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H2S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)

Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water None Depth to free water in pit No pit Depth to saturated soil _____

Water sources: Ditch Goes to: under RR

Primary wetland hydrology indicators:

- Inundated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- drift lines
- Sediment deposits
- Drainage pattern in wetlands

Secondary indicators (need 2 or more):

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
C7
Site 20—W
pg 39



North I-25
C8
Ditch E of Site 20—N



North I-25
C9
S. of Campion
pg 39



North I-25
C10
South of Campion
pg 39



North I-25
C11
South of Campion
pg 39

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: I-25 W

Applicant/Owner: _____ Site: w19 Pg 41

estigator: Clarke / Beckus Date: 5/25/06 GPS # w19

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting:

Lake Ditch

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Typha</u>	<u>H</u>	<u>OBL CBL</u>			

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # 27 *Dominants = OBL, FACW, FAC _____% (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

- wetland vegetation intermittent - GPS west bank
- irrigation channel, 6-10' wide - offset 2' to right
no sample taken - interpret from records to county Rd. 60

Soils: Wetland soils present? Yes No

Map unit series and phase:	Hydric soils list?				
Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H2S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? (Yes) No

Depth of surface water 3-8" Depth to free water in pit _____ Depth to saturated soil _____

Water sources: _____ Goes to: _____

Primary wetland hydrology indicators:

- Inundated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- drift lines
- Sediment deposits
- Drainage pattern in wetlands

Secondary indicators (need 2 or more):

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
C4
Site 19—E
pg 41



North I-25
C5
Site 19—W
pg 41



North I-25
C6
Site 19—E
pg 41

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR
 Applicant/Owner: _____ Site: 18 East & West pg 4
 Investigator: Backus + Clarke Date: 5-25-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

*Seep from pond to west
Frogs*

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Typha</u>					

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # _____ *Dominants = OBL, FACW, FAC 100 % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)
*C1 -> SW of 18 E
C2 -> SW of 18 W*

Soils: Wetland soils present? Yes No

Map unit series and phase: _____					Hydric soils list? Yes No
Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H2S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled

- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- ~~Assume soils when all dominant plants are OBL and/or FACW~~

Hydrology: Wetland hydrology present? Yes No

Depth of surface water _____ Depth to free water in pit _____ Depth to saturated soil C3 -> W

Water sources: Pond to W Irrigation Goes to: _____

- Primary wetland hydrology indicators:
- Inundated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - drift lines
 - Sediment deposits
 - Drainage pattern in wetlands

- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
C1
Site 18—E—S
pg 41



North I-25
C2
Site 18W—SW
pg 41



North I-25
C3
Pond w. of Site 18
pg 41

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

17
→

Project, City/County, State: NI 25 RR
 Applicant/Owner: _____ Site: 16 Pg 44-43
 Investigator: Backus & Clarke Date: 5 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: Ditch w of RR increased in areas occasional breaks in wetl veg more breaks to south

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Asclep speciosa</u>	<u>H</u>	<u>FAC</u>	<u>B24 → N</u>		
<u>Swamp thistle</u>	<u>H</u>	<u>FAC</u>			
<u>Phalaris amabilis</u>	<u>H</u>	<u>FACW+</u>			
<u>Agrost?</u>					
<u>Calam</u>					
<u>Scirpus spp.</u>					

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # B21 → N *Dominants = OBL, FACW, FAC _____% (Wetlands - 50% or greater of dominants = OBL, FACW, FAC
Bran

Soils: Wetland soils present? Yes No

Map unit series and phase:	Hydric soils list?
Depth <u>10</u> Horizon <u>A</u> Matrix color <u>10YR4/3</u> Mottle color <u>None</u> Mottle abundance/contrast <u>-</u> Texture, concretions, structure <u>sandy clay</u>	Yes No

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H2S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No
Flows ~ 1' wide, 2" deep
 Depth of surface water probe Depth to free water in pit _____ Depth to saturated soil 8"

- Water sources: _____ Goes to: W 15 west
- Primary wetland hydrology indicators:
- Inundated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - drift lines
 - Sediment deposits
 - Drainage pattern in wetlands
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No

E side of tracks - cattail marsh w/ indicators of drying

*Typha

Brar

Canadensis

Kochia

*Tuar

*Phar

No pit

patchy - minor areas of
gravel + Brte

Intermit ditch on west side

Elpa

Nast-fl

veg grass / Carex Carex prorepens?

Saam sapt.

B22 → N, B23 → S

Water from ditch along fence line



North I-25
B21
Site 16—N
pg 44



North I-25
B25
Site 16—S



North I-25
B24
Ditch east side of RR
south of SH 60
pg 43



North I-25
B22
Site 17—N
pg 43



North I-25
B23
Site 18—S
pg 43

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25
 Applicant/Owner: _____ Site: 15W + 15E Pg 44
 Investigator: Backus + Clarke Date: 5-25-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: Swale

Vegetation: Wetland vegetation present? Yes No

15W		15E - Frog S Scour pool	
Dominant species	Layer Status	Dominant species	Layer Status
<u>Typha spp.</u>	<u>H OBL</u>	<u>Ely rep?</u>	
		<u>Asclep spec.</u>	
		<u>Phar</u>	

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # B20 → W *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC
B18 + 19 → E + NE of east side

East side - Scour pool +
downcutting - Transition from
wetland to drier site
woods?

Soils: Wetland soils present? Yes No

Map unit series and phase: _____ Hydric soils list? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
		<u>10YR4/3</u>			<u>East</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H2S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled

- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No concrete culvert underneath - 24" diameter

Depth of surface water 3-4" deep flows Depth to free water in pit No pit Depth to saturated soil _____
 Water sources: swale Goes to: may connect to cattail marsh

- Primary wetland hydrology indicators:
- Inundated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - drift lines
 - Sediment deposits
 - Drainage pattern in wetlands
- Secondary indicators (need 2 or more): to NE
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
B18
Site 15E—NE
pg 44



North I-25
B19
Site 15E—NE
pg 44



North I-25
B20
Site 15W—W
pg 44

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NISS

Applicant/Owner: _____ Site: 14 E+W

Investigator: Barkus + Clarke Date: 5-25-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: ditch below fenced cattail marsh

Vegetation: Wetland vegetation present? Yes No E+W connected by concrete pipe

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Phalaris arundinacea</u>					
<u>Eleocharis palustris</u>		<u>OBL</u>			
<u>Typha spp.</u>		<u>OBL</u>			

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # B16 → W Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC
B17 → E

Soils: Wetland soils present? Yes No

Map unit series and phase: _____					Hydric soils list? Yes No
Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H2S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Pool of standing water at pipe outlet
 Depth of surface water _____ Depth to free water in pit _____ Depth to saturated soil _____

Water sources: cattail marsh to West Goes to: probably cattail marsh to E

- | | |
|---|--|
| Primary wetland hydrology indicators:
<input type="checkbox"/> Inundated
<input type="checkbox"/> Saturated in upper 12" > 12.5% of growing season
<input type="checkbox"/> Water marks
<input type="checkbox"/> drift lines
<input type="checkbox"/> Sediment deposits
<input type="checkbox"/> Drainage pattern in wetlands | Secondary indicators (need 2 or more):
<input type="checkbox"/> Oxidized root channels in upper 12"
<input type="checkbox"/> Water-stained leaves
<input type="checkbox"/> Local soil survey data
<input type="checkbox"/> Fac-neutral test (>50% dom = OBL, FACW+, FACW)
<input type="checkbox"/> Other: |
|---|--|

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
B16
Site 14—W
Pg. 45



North I-25
B17
Site 14—E
Pg. 45

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25

Applicant/Owner: _____ Site: 13 W Pg 45

Investigator: Backus & Clarke Date: 5-25-06 GPS # 13 W

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

Culvert from residential area

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Bromopsis inermis</u>					
<u>Eleocharis palustris</u>					

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'

Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # B14 → SW *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

*Minor typha spp, Paddy virginiana
Area w/ Elpa is < 25 ft²*

Soils: Wetland soils present? Yes No

Map unit series and phase: _____ Hydric soils list? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
<u>6</u>	<u>B</u>	<u>10YR 3/2</u>	<u>7YR 4/6</u>	<u>common</u>	<u>clay</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H2S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water None Depth to free water in pit Probe Depth to saturated soil damp at 6'

Water sources: _____

Goes to: _____

Primary wetland hydrology indicators:

- Inundated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- drift lines
- Sediment deposits
- Drainage pattern in wetlands

Secondary indicators (need 2 or more):

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No

5-25-06 messages

Ken Carlson - call

ROE - WC
pulling tog. info ownership

Rebecca CDOT

3 913 6105

512 4051

Jim



North I-25
B14
Site 13—W
Pg. 45

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25

Applicant/Owner: _____ Site: 12 Pg 45

Investigator: Backus & Clarke Date: 5-25-06 GPS # 12

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting:

Vegetation: Wetland vegetation present? Yes No

seep?

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Typha angustifolia</u>	<u>S</u>	<u>OBL</u>			

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'

Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # B13 → NE *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Soils: Wetland soils present? Yes No

Map unit series and phase: _____ Hydric soils list? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H2S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water _____ Depth to free water in pit _____ Depth to saturated soil _____

Water sources: seep under RR Goes to: continues 5' → E of RR fence

Primary wetland hydrology indicators:

- Inundated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- drift lines
- Sediment deposits
- Drainage pattern in wetlands

Secondary indicators (need 2 or more):

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
B13
W12—NE

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: I-25 W

Applicant/Owner: _____ Site: 10A1 Pg 46

Investigator: Beckus/Clarke Date: 5/25/06 GPS # 10A

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting:

Big Thompson Ditch?

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Phar</u>		<u>FACW+</u>			
<u>Caem</u>		<u>OBL</u>			

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # _____ *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

West of tracks flows in concrete channel
swallows in CB

Soils: Wetland soils present? Yes No

Map unit series and phase: no sample taken - OBL/FACW species present Hydric soils list? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
<u>No PIT</u>					

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H2S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)

Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water _____ Depth to free water in pit no sample taken _____ Depth to saturated soil _____

Water sources: 1-2' on flowing water in channel Goes to: _____

Primary wetland hydrology indicators:

- Inundated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- drift lines
- Sediment deposits
- Drainage pattern in wetlands

Secondary indicators (need 2 or more):

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25

Applicant/Owner: _____ Site: B 11 Pg 47

Investigator: Backus + Clarke Date: 5-25-06 GPS #: 11

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: gravel fill on East side RR

Vegetation: Wetland vegetation present? Yes No

veg continues under tracks - new veg is hypochaeris - lawn FACW

Dominant species	Layer Status	Dominant species	Layer Status
<u>Phar</u>		<u>Ser. lac, Spurry, Brite, Kochia</u>	
<u>Typha</u>			
<u>Sax - west side</u>			

Flora in riparian area to East

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'

Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # B11+12 → E Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

*Site appears in transition to drier community
Bar invading Phar upper margins
Lemna in open water & outlet flows*

Soils: Wetland soils present? Yes No

Map unit series and phase: _____ Hydric soils list? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
<u>12"</u>	<u>probe</u>	<u>10YR 3/2</u>	<u>No</u>		<u>clay - Phar upper</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H2S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

pool of water in center
Depth of surface water: None Depth to free water in pit: No pit Depth to saturated soil: 10cm

Water sources: _____

Goes to: _____

Primary wetland hydrology indicators:

Secondary indicators (need 2 or more):

- Inundated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- drift lines
- Sediment deposits
- Drainage pattern in wetlands

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other:

old river channel w/ minor flows

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
Site 11—E
Pg. 47



North I-25
North Loveland Ditch
5-9-06
Pg. 55



Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR
 Applicant/Owner: _____ Site: 16 Pg 57
 Investigator: L. Backus Date: 5-9-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Typha</u>					
<u>Typha</u>					

I - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.
 Photo # B5-25 *Dominants = OBL, FACW, FAC _____% (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)
Bar invading upper margins pit in upper wet.

Soils: Wetland soils present? Yes No

Soil unit series and phase:	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No
	<u>0-5</u>	<u>10YR4/2</u>			Texture, concretions, structure
	<u>5-12</u>	<u>2.5Y 5/3</u>	<u>7.5YR4/6</u>	<u>Common, vertical</u>	<u>clay</u> <u>clay</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H₂S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water None Depth to free water in pit None Depth to saturated soil _____

- Other sources: _____ Goes to: _____
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other: _____
- Wetland hydrology indicators:
- Undated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - Ripples
 - Sediment deposits
 - Drainage pattern in wetlands

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No

Draw - Matt Nutton Aviation
with Delin - at Montrose

Jim can do
Jim will do scope of work

Aspen Airport - updated cost estimate
place for Bill to stay in house
↳ Aviation vehicle
email
Angela



North I-25
B5
5-9-06
Site 16
Pg. 57

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

10423/2 0-3
 Soils 545/1 3-12

Same indicators

Project/Site: <u>Wetland 6A (east) - Wetland 7A (east)</u> Applicant/Owner: _____ Investigator: <u>Stonerow / Clarke</u>	Date: <u>05/29/06</u> County: <u>Weld</u> State: <u>Colorado</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No <input type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typhus (specie) cat tail</u>	<u>Dom</u>		9. _____		
2. _____			10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
			16. _____		

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

Remarks: Cat tail is the only species within the wetland 100% of cover. Thick with old growth but new growth evident. Connected by culvert to wetlands 1A-5A -

HYDROLOGY

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

Remarks: Soil is saturated beyond two inches just above B horizon

Map Unit Name
Series and Phase): _____
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	A	10YR3/2			3 inch organic layer
3-	B	5Y 4/1 and 2.5Y 4/2	5Y 5/3	Strong mottles/abundant	Saturated duff

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)

not sandy soil

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

Remarks:

pg. 59

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

connected by culvert
(South East 1) sets
0-2104R31L
Shog bottles
dry roots. 3-12-5Y
S/I

hydrologically connected to SA - same indicators

Project/Site: Wetland SA (South 1) (South 2) (South 3) (South 4) (South 6) (South 5) (South 7)

Applicant/Owner: _____

Investigator: h3 PIC 4 PIC P-5

Date: 05/24/06

County: Weld

State: Colorado

Community ID: _____

Transect ID: _____

Plot ID: _____

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.)

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typha (spec-ies) cattail</u>			9. _____		
2. _____			10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
			16. _____		

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

Remarks: Cattail is the only species within the wetland area. This is the eastern extent of a larger system
Smoothbroom is veg evident thick at the upland margin

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: 1 (in.)

Wetland Hydrology Indicators:

Primary Indicators:

Inundated

Saturated in Upper 12 Inches

Water Marks

Drift Lines

Sediment Deposits

Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 Inches

Water-Stained Leaves

Local Soil Survey Data

FAC-Neutral Test

Other (Explain in Remarks)

Remarks:

Map Unit Name
 Series and Phase): _____
 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	A	10YR 4/1	yes 5YR 5B		clay loam
6-	B	10YR 5/2			clay loam

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input checked="" type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks:



North I-25
Wetland 7A (east)—NE
5-24-06
Photo 8
Pg. 59



North I-25
Wetland 6A (east)—NE
5-24-06
Photo 7
Pg. 59



North I-25
Wetland 5A (South 1)—SW
5-24-06
Photo 2
Pg. 59



North I-25
Wetland 5A (South 2)—NW
5-24-06
Photo 3
Pg. 59



North I-25
Wetland 5A (South 3)—SW
5-24-06
Photo 4
Pg. 59



North I-25
Wetland 5A (South 4)—W
5-24-06
Photo 5
Pg. 59



North I-25
Wetland 5A (South 5)—SW
5-24-06
Photo 6
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DATA FORM
ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

(PICA)

Project/Site: <u>Wetland SA</u>	Date: <u>05/24/06</u>
Applicant/Owner: _____	County: <u>Weld</u>
Investigator: <u>Storowan/Cladice</u>	State: <u>Colorado</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No	Transect ID: _____
Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No	Plot ID: _____
(If needed, explain on reverse.)	Pg. 60

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typha (species) cattail - Dominant</u>		<u>OBL</u>	9. _____		
2. <u>Scirpus</u>			10. _____		
3. _____			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
			16. _____		

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

Remarks: Cattail is very thick though 90% of the area on the north end an amount scirpus is in with the cattail 6/11 years growth is heavy but new growth is clearly evident

HYDROLOGY

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

Remarks: This is the eastern extent of a larger wetland.

SOILS

Map Unit Name
Series and Phase): _____
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	A	10YR 3/2		ab	clay loam
3-12	B	10YR 5/2	5YR 6/8	abundant/strong	clay loam

Hydric Soil Indicators:

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

Remarks:
Mottles are clearly evident → 5YR 6/8

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks:



North I-25
Wetland 5A—SW
5-24-06
Photo 2
Pg. 60

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

M. 60-61

Project/Site: <u>Wetland 4A (east)</u> Applicant/Owner: _____ Investigator: <u>Stoneman/Knapp</u>	Date: <u>05/23/05</u> County: <u>Weld</u> State: <u>Colorado</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typha (species) cattail</u>	<u>groundcover</u>	<u>OBL</u>	9. _____	_____	_____
2. _____	<u>100%</u>	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
_____	_____	_____	16. _____	_____	_____

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

Remarks: Cattail consists of 100% of the wetland vegetation - mostly last years growth but new growth is clearly visible. In an approximately 15' in width at middle and 5' @ edges, begins bottom of east RR slope and continues to and beyond RR right of way.

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: Overflows from adjacent drainage ditch. Hummocks -> new drainage patterns with cattails.

SOILS

Map Unit Name
 Series and Phase): No pit - Dominance of obligate UL-
 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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

WETLAND DETERMINATION

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

Remarks:



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Wetland 4A—S
5-23-06
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Pg. 60-61

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

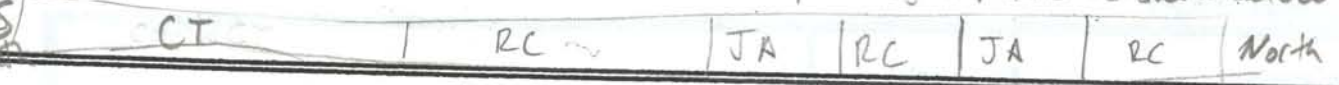
Project/Site: <u>Wetland 4A (west)</u> Applicant/Owner: _____ Investigator: _____	Date: <u>05/23/05</u> County: <u>Weld</u> State: <u>Colorado</u>
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>reed cany grass</u>	<u>(RC)</u>	<u>Dom</u>	9. _____	_____	_____
2. <u>Juncus arvens</u>	<u>(JA)</u>	<u>Dom</u>	10. _____	_____	_____
3. <u>Typha species (anttil)</u>	<u>(CT)</u>	<u>Dom</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
_____	_____	_____	16. _____	_____	_____

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

Remarks: All species are dominant in specific areas - there are patches of individual species with greater than 90% of a single species. The bands/areas of the individual pockets of plants is shown below.



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: 12" (in.)

Depth to Saturated Soil: 6" (in.)

Wetland Hydrology Indicators:

Primary Indicators:

Inundated
 Saturated in Upper 12 Inches
 Water Marks
 Drift Lines
 Sediment Deposits
 Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

Oxidized Root Channels in Upper 12 Inches
 Water-Stained Leaves
 Local Soil Survey Data
 FAC-Neutral Test
 Other (Explain in Remarks)

Remarks:

Map Unit Name
Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Soil pit not taken due to dominance of 100% facw aobl plant species.

WETLAND DETERMINATION

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

Remarks:



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Wetland 4A—SW
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North I-25

D9.61

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

Project/Site: <u>Wetland 3A (east/west)</u>	Date: <u>05/23/05</u>
Applicant/Owner: _____	County: _____
Investigator: <u>Stoneran/Knapp</u>	State: <u>Colorado</u>
Do Normal Circumstances exist on the site? <input type="radio"/> Yes <input checked="" type="radio"/> No	Community ID: <u>Wetland 3A (east/west)</u>
Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No	
Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No	
(If needed, explain on reverse.)	Transect ID: _____
	Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>reed canopy</u>	<u>Dom</u>	<u>FACW</u>	9. _____	_____	_____
2. <u>Salix erigua</u>	_____	<u>FACW</u>	10. _____	_____	_____
3. <u>horse tail</u>	_____	<u>FAC</u>	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
			16. _____	_____	_____

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

Remarks: Dominant reed canopy grass with scattered Salix in 3 foot bands - and horse tail on upper bank.
Banks are separated by approximately 12' of open water flowing east in canal.
Horse tail on banks adjacent to wetland northward

HYDROLOGY

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

Field Observations:

Depth of Surface Water: unknown/water cloudy (in.)
likely a few feet

Depth to Free Water in Pit: 5" (in.)

Depth to Saturated Soil: 12" (in.)

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

Remarks:

Map Unit Name
Series and Phase): _____
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.
0-5	A	7.5Y3/3			silty/clay
5-12+	B	7.5Y3/2	10YR 5/6	Few/distinct	Silty/sandy clay loam

Hydric Soil Indicators:

- | | |
|---|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Test pit taken on bank @ ordinary high water level above rising flow.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks: yes, wetland vegetation, hydrology and soils are present.



North I-25
Wetland 3A—SW
5-23-06
pg. 61



North I-25
Wetland 3A—E
5-23-06
pg. 61

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

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Project/Site: <u>Wetland 2A (Salt mudflat) includes east and west</u> Applicant/Owner: _____ Investigator: <u>Stoermer/Krupp</u>	Date: <u>05/23/06</u> County: _____ State: <u>Colorado</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

Salt Flat

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. <u>Alkali Bulrush (limited sparse along banks)</u>		
2. <u>Seablite (Suaeda arifolia) dom</u>		
3. _____		
4. _____		
5. _____		
6. _____		
7. _____		

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:

Salt mudflat limited vegetation on bank in thin band and sparse / center of mud flat is mud w/ seablite

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: 0-2" (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: Soil is very muddy (very clayey) alkali - standing water clearly visible along with ordinary high water & clear banks.

SOILS

Map Unit Name See Sample
 Series and Phase: _____
 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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: see sample

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks:



North I-25
2A—NE
5-23-06
Pg. 66



North I-25
2A—NE
5-23-06
Pg. 66



North I-25
2A—NW
5-23-06
Pg. 66



North I-25
2A—S
5-23-06
Pg. 66



North I-25
2A—SW
5-23-06
Pg. 66



North I-25
2A—W
5-23-06
Pg. 66



North I-25
2A—NE
5-23-06
Pg. 66

Ground shot of push seepweed

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

Pg 60

PS, 69

Project/Site: <u>Wetland 1A (2 plots)</u> Applicant/Owner: _____ Investigator: <u>Stoneman/Knapp</u>	Date: <u>05/23/06</u> County: _____ State: <u>Colorado</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>Wetland 1A</u> Transect ID: _____ Plot ID: _____

Ditch S of 37th St

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typha</u>		<u>Obl</u>	9. _____		
2. <u>algal species</u>			10. _____		
3. _____			11. _____		
4. <u>reed canary</u>	<u>Dom</u>	<u>Obl</u>	12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
			16. _____		

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

Remarks: Cattail was the dominant/only wetland plant in this area consisted of mostly new growth. Algal mats were also very evident indicating often saturated conditions. reed canary dominant species in wetland band to south. Part of same drained.

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <input checked="" type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands
<p>Field Observations:</p> <p>Depth of Surface Water: <u>2-6"</u> (in.)</p> <p>Depth to Free Water in Pit: <u>0'</u> (in.)</p> <p>Depth to Saturated Soil: <u>0'</u> (in.)</p>	<p>Secondary Indicators (2 or more required):</p> <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)

Remarks:

Map Unit Name
 Series and Phase: No pit needed
 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.

Hydric Soil Indicators:

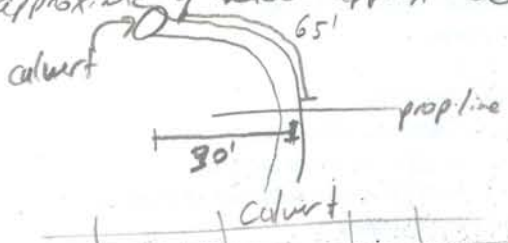
- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: area of wetland is completely saturated. Dominant (80%) of vegetation is cattail (Typha sp.). No pit was needed.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle) Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	

Remarks: completely saturated soils with dominant vegetation of cattails. Area is approximately 4' wide approx- 65' in length bends SW about 30' from GPS point.





North I-25
1A (further south on track)
5-23-06
Drainage Ditch—E
Pg. 69

(Note: not wetland, not mapped,
included for reference)



North I-25
1A
5-23-06
Drainage Ditch—W
Pg. 69

(Note: not wetland, included for
reference)



North I-25
1A
5-23-06
Drainage Ditch—E
Pg. 69



North I-25
1A (further south on tracks)
5-23-06
Drainage Ditch—SW

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Pg 71

Project, City/County, State: NT-25 RR Site: 12, B... / nat. drainage
 Applicant/Owner: _____ Date: 5-9-06 GPS # _____
 Investigator: L. Backus

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Phar</u>					
<u>E+sa</u>					
<u>Typha</u>	<u>extension to south = (1)-13</u>				

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.
 Photo # A-23 → S *Dominants = OBL, FACW, FAC 100 % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)
minor typha

both sides of bridge
 Soils: Wetland soils present? Yes No

Soil map unit series and phase: _____ Hydric soils list? Yes No

Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
<u>12</u>	<u>10YR 3/2</u>	<u>7.5YR 6/6</u>	<u>common</u>	<u>clay</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H₂S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Striking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No
minor flows ~ 2' wide
 Depth of surface water 3-4" Depth to free water in pit 11" Depth to saturated soil Sur

- Water sources: _____ Goes to: _____
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other: _____
- Wetland hydrology indicators:
- Inundated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - Iron oxides
 - Sediment deposits
 - Drainage pattern in wetlands

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No
 Do the wetland extend outside of study area boundaries? Yes No



North I-25
A23
5-9-06
Site 12—S
East side



North I-25
A24
5-9-06
Site 12—NE
West side



North I-25
A25
5-9-06
Site 13—S

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR

Applicant/Owner: _____

Site: Fossil Cr - 10

Pg 72

Investigator: L. Backus

Date: 5-9-06

GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Phar</u>					

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # A20 → NW, A21 → Non wet soil *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Minor Saix, Caem - E > 2' wide bands of phar
Podir & Elan above - W > adj to creek

Soils: Wetland soils present? Yes No

Soil	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No
<u>02</u>		<u>10YR 3/2</u>	<u>tan (10YR 6/4)</u>	<u>10YR 3/1</u>	<u>Sandy clay loam</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H₂S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water 1-2 Depth to free water in pit None Depth to saturated soil 8"

- Water sources: Fossil Cr. Goes to: _____
- Wetland hydrology indicators:
- Inundated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - Iron oxides
 - Sediment deposits
 - Drainage pattern in wetlands
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No



North I-25
A20
5-9-06
Fossil Creek—NW



North I-25
A20
5-9-06
Fossil Creek
West side

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI-25 RR
 Applicant/Owner: _____ Site: 6 Page 77
 Investigator: L. Backus Date: 5-9-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: Ditch

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Typha</u>					
<u>Phar in south portion</u>					

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # 12A → NE *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Pode, Elan, Bran, Rucr above water
Typha just beginning to sprout

Soils: Wetland soils present? Yes No

Map unit series and phase:					Hydric soils list? Yes No
Dr	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
<u>2</u>	<u>3</u>	<u>10YR 2/2</u>	<u>None</u>		<u>Sandy clay loam</u>
<u>8-12</u>		<u>10YR 3/1 +</u>	<u>4/1</u>		<u>" "</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H₂S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)

Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water None Depth to free water in pit 8" Depth to saturated soil Sur

Water sources: Groundwater Goes to: _____

Primary wetland hydrology indicators:

- Inundated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- Ripples
- Sediment deposits
- Drainage pattern in wetlands

Secondary indicators (need 2 or more):

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
A12
5-9-06
Site 6—NE

Project, City/County, State: NI-25 RR

Applicant/Owner: _____ Site: 4 drainage outlet from Ft. Collins stormwater detention

Investigator: Backus + Stoneman Date: 5-8-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Phalaroides arundinacea</u>	<u>H</u>	<u>FACW+</u>	<u>Typha spp.</u>	<u>H</u>	<u>OBL</u>
			<u>Nasturtium officinale</u>	<u>H</u>	<u>OBL</u>
			<u>Phalaroides arundinacea</u>	<u>H</u>	<u>FACW</u>

East side

West side

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'

Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # _____ *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC

one Rhus virginia on west side

Soils: Wetland soils present? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
<u>0-5</u>	<u>-</u>	<u>10YR 2.3/3</u>	<u>None</u>	<u>-</u>	<u>clay</u>
<u>5-9</u>	<u>-</u>	<u>10YR 6/3</u>	<u>10YR 5/6</u>	<u>common</u>	<u>clay</u>
<u>9-12</u>	<u>-</u>	<u>10YR 2/1</u>	<u>None</u>	<u>-</u>	<u>clay</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H2S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water 2' wide ditch Depth to free water in pit Surface Depth to saturated soil Surface

Water sources: Stormwater detention basin to west Goes to: _____

- Primary wetland hydrology indicators:
- Inundated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - drift lines
 - Sediment deposits
 - Drainage pattern in wetlands
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other: _____

area of standing water to east beyond wetland boundary

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
A9
5-8-06
Wetland 4, E side—NE
pg 78



North I-25
A10
5-8-06
Wetland 4, W side—W
pg 78

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-I25 Station Alt. PN-30 Site 2</u> Applicant/Owner: _____ Investigator: <u>Brad Storeneman</u>	Date: <u>09/29/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Cattail</u>		<u>Obl</u>	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: The potential wetland area contains almost 100% cattail. Other species include portions of the cattail have been removed and near the margins of the potential wetland area number of weedy species. Within the inside of the wetland is a circular area with intact cattail.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>none observed</u> (in.) Depth to Free Water in Pit: <u>none observed</u> (in.) Depth to Saturated Soil: <u>none observed</u> (in.)	

Remarks: The area was substantially dry. But the heavy layer of dead cattail held more moisture in the soil. Soil was moist @ about 4" but no saturated soil to 14' was noted. The area likely is saturated due to the cattail.

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-4"	A	10YR 3/2			
4-14"	B	10YR 3/2	None	N/A	Loam
0-1"	Organic				
1-3"	A	10YR 4/3	None	N/A	Loam
3-12"	B	10YR 4/2			
0-3"	Organic	5YR 3/2			
3-7"	A		None	N/A	Loam
7-14"	B	10YR 3/2			

Hydric Soil Indicators:

and 2.5Y 3/3
two distinct soil colors in the matrix.

- 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) Is this Sampling Point Within a Wetland? Yes No
Wetland Hydrology Present?	Yes No	
Hydric Soils Present?	Yes No	

Remarks:



North I-25
Station Alt.
PN30
Site 2
Overview



North I-25
Station Alt.
PN30
Site 2
Overview



North I-25
Station Alt.
PN30
Site 2
Sample A



North I-25
Station Alt.
PN30
Site 2
Sample B



North I-25
Station Alt.
PN30
Site 2
Sample B

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-I25 PN-19</u> Applicant/Owner: _____ Investigator: <u>Brad Storeman</u>	Date: <u>10/20/06</u> County: <u>Las Animas</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>cattail</u>	<u>100%</u>	<u>Obl.</u>	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: The site is dominated by agricultural land, recently harvested field and growing crops. The ditch adjacent to Highway 56 contains thick cattails and is the dominant if not the only species in the ditch.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>Ponded water was observed in the ditch.</u>

SOILS

Map Unit Name
(Series and Phase): _____
Taxonomy (Subgroup): _____

Drainage Class: _____
Field Observations
Confirm Mapped Type? Yes No

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

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)

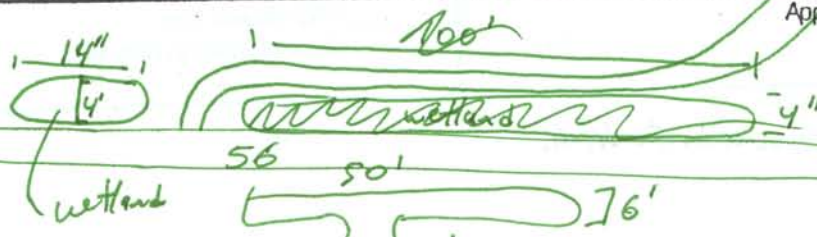
Remarks: *No soil pit was dug due to the presence of obligate wetland species and hydrology.*

VETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present?	<input type="radio"/> Yes <input type="radio"/> No	
		Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No

Remarks: *This point is wetland however no GPS plots were taken due to the lack of ROE.*

Estimates of wetland area. a small pocket 4'x14" on west of dirt access road. there is a larger band along 56 east of the dirt access road approximately 100' in length.



Approved by HQUSACE 3/92



North I-25
PN19



North I-25
PN19



North I-25
PN19

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>I-25N PN16 BNSF56</u>	Date: <u>10/10/06</u>
Applicant/Owner: _____	County: <u>Corral</u>
Investigator: <u>Brad Stoneman</u>	State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/>
	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Cattail - 95% of species</u>	<u>95%</u>	<u>obl.</u>	9. _____	_____	_____
2. <u>Curly doc</u>	_____	_____	10. _____	_____	_____
3. <u>Scotch thistle</u>	_____	_____	11. _____	_____	_____
4. <u>Soil boundaries between wetland area.</u>	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

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

Remarks: Dominant species is cattail. There are some encroaching weeds, Two Russian olive plants (2-3 yrs) on wetland boundaries. Curly doc within wetland area and in upland. Scotch thistle within upper edge of wetland and ~~some~~ hawthorn.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>0"</u> (in.) Depth to Free Water in Pit: <u>5"</u> (in.) Depth to Saturated Soil: <u>3"</u> (in.)	Remarks: <u>Light rain previous night, however, the surface organic layer was practically dry, with no rain over the previous weeks. Unusually soils were wet @ 3" @ the higher point of the wetland boundary. Definite wetland hydrology present.</u>

SOILS

Map Unit Name (Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0"-2"	organic				
2"-3"	A	2.5Y 5/2	N/A	N/A	Coamy sand
3"-14"	B	10YR 3/1	10R 3/4 / 10R 4/6	Abundant / very distinct	clay

Hydric Soil Indicators:

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

Remarks: Soil has an approx 0-2" organic duff layer. Small roots extend into the A horizon resulting in a light non-compact soil. Mottles are very common, clearly visible in all samples and pulled pieces - B horizon also contained numerous oxidized root channels.

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

Remarks: This area contains all three criteria needed for possible wetland determination. Dominant vegetation consists of cattail.



North I-25
PN16
BNSF 56



North I-25
PN16
BNSF 56



North I-25
PN16
BNSF 56



North I-25
PN16
BNSF 56

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

Project/Site: <u>I-25N PNS-Harmony North-Site 1</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/03/06</u> County: <u>Colimer</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Salix exigua</u>		<u>OBL FACW</u>	9. _____		
2. <u>Cattail</u>		<u>Obl.</u>	10. _____		
3. <u>curly doc</u>			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

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

Remarks: Dominant vegetation is willow and cattail. Cattails are within the middle of the small ditch about 4-5' wide. A band of willows are in a thin band between the banks and channel. up to 8' wide.

HYDROLOGY

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

Remarks: Surface water is notable in some locations. In other areas the soil is saturated.

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Soils not needed. Both hydrology and vegetation are present*

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: *Wetland.
See marked map. GPS down.*



North I-25
PN5
Harmony North
Site 1



North I-25
PN5
Harmony North
Site 1

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

*Roadside ditches, minor ponded areas,
 irrigation ditches & canals.*

Project/Site: <u>1.6th T25 (Longmont Metro North & DM Alternatives)</u> Applicant/Owner: <u>RTD</u> Investigator: <u>Knepp</u>	Date: <u>11/2/06</u> County: _____ State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: <u>PEM</u> Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Typha spp</u>			9. _____		
2. <u>Phalaris carolinensis</u>			10. _____		
3. <u>Rumex crispus</u>			11. _____		
4. <u>Carex spp.</u>			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

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

Remarks: *Minor occurrence of algae spp. along pond margins & intersect irrigation ditches.*

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input checked="" type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1-2</u> (in.) Depth to Free Water in Pit: <u>n/a</u> (in.) Depth to Saturated Soil: <u>n/a</u> (in.)	
Remarks: <i>Irrigation ditches, small ponded areas.</i>	

SOILS

Map Unit Name
(Series and Phase): No Pit

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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Soils assumed hydric based on dominance of wetland vegetation with a OBL or FACW indicator status.*

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: *All wetland areas were dominated by either Phalaris arundinacea or Typha spp. with lesser occurrence of other wetland vegetation species.*

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR N of 9th
 Applicant/Owner: _____ Site: 10 Irrigation ditch pgs
 Investigator: Backus & Stowman Date: 6-1-06 GPS #: _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

concrete lines to w of RR

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Phalaris</u>					

I - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.
 Photo # D11 -> SE *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Soils: Wetland soils present? Yes No

Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No
<u>1-12"</u>		<u>2.5A</u>			<u>Texture, concretions, structure</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H₂S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water No Depth to free water in pit No pit Depth to saturated soil 4"

- Water sources: ditch flows - 2 culverts Goes to: _____
- Wetland hydrology indicators:
- Undated
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - Ripples
 - Recent deposits
 - Drainage pattern in wetlands
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No



North I-25
D8
6-1-06
Site 10—SE

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR PS 17
 Applicant/Owner: _____ Site: 4 irrigation ditch PS 17
 Investigator: Backus & Staman Date: 6-1-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No 4' wide wetl bands - South side only

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Carex emoryi</u>					
<u>Saxifraga</u>					

I - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # C21 → E *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)
C22 → SW

Soils: Wetland soils present? Yes No

Soil depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No	Texture, concretions, structure

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H₂S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled

- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)

Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water _____ Depth to free water in pit No pit Depth to saturated soil _____

Water sources: 5' wide irrigation ditch

- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? (Yes) No



North I-25
C20—NW
6-1-06
Wetland associated with
res outside ROW



North I-25
C21
6-1-06
Site 4—E
pg 17



North I-25
C22
6-1-06
Site 4—SW
Pg 17

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25

Applicant/Owner: _____ Site: 13 East Pg 45

Investigator: Backus & Clark Date: 5-25-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: connected to 13 W by CBC

Vegetation: Wetland vegetation present? Yes No ditch from residential area

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Typha angustifolia</u>					
<u>Salix exigua</u>	<u>at N margin</u>				

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'

Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # B15 -> E *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Kochia invading

Soils: Wetland soils present? Yes No

Map unit series and phase:	Hydric soils list? Yes No				
Depth	Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
<u>10</u>	<u>A</u>	<u>10YR 2/1</u>	<u>7YR 5/6</u>	<u>common</u>	<u>clay</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

Non-sandy hydric soil indicators:

- Histosol
- Histic epipedon
- H2S odor
- Aquic moisture regime (gw to surface)
- Peraquic moist. regime (capillary action brings gw to surface)
- Fe/Mg recent concretions
- Reducing conditions (a-a-dipyridil)
- Gley
- Chroma = 2/less in mottled, 1 or less in unmottled

Sandy hydric soil indicators - add:

- Aquic moisture regime
- High organic content in surface layer
- Streaking of subsurface horizons by organic material
- Organic accretions (muck balls just below surface)
- Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water None Depth to free water in pit No Depth to saturated soil 2"

Water sources: culvert from housing dev Goes to: Typha marsh to East

Primary wetland hydrology indicators:

- Inundated
- Saturated in upper 12" > 12.5% of growing season
- Water marks
- drift lines
- Sediment deposits
- Drainage pattern in wetlands

Secondary indicators (need 2 or more):

- Oxidized root channels in upper 12"
- Water-stained leaves
- Local soil survey data
- Fac-neutral test (>50% dom = OBL, FACW+, FACW)
- Other:

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Does the wetland extend outside of study area boundaries? Yes No



North I-25
B15
Site 13—E
Pg 45

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

P-10 P-11 P-12

Project/Site: <u>Wetland 8A / Wetland 9A / Wetland 10A</u> Applicant/Owner: _____ Investigator: <u>Stoneman/Clarke</u>	Date: <u>05/24/06</u> County: <u>Carmer</u> State: <u>Colorado</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width:100%;"> <tr> <td><input checked="" type="radio"/> Yes</td> <td><input type="radio"/> No</td> </tr> <tr> <td><input type="radio"/> Yes</td> <td><input checked="" type="radio"/> No</td> </tr> <tr> <td><input type="radio"/> Yes</td> <td><input checked="" type="radio"/> No</td> </tr> </table>	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<input checked="" type="radio"/> Yes	<input type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
	Community ID: _____ Transect ID: _____ Plot ID: _____						

VEGETATION

Plot	Dominant Plant Species	Stratum	Indicator																												
1. <u>Plot BA</u>	<u>reed canopy</u>		<u>FACW</u>	<table style="width:100%;"> <thead> <tr> <th>Dominant Plant Species</th> <th>Stratum</th> <th>Indicator</th> </tr> </thead> <tbody> <tr><td>9. _____</td><td></td><td></td></tr> <tr><td>10. _____</td><td></td><td></td></tr> <tr><td>11. _____</td><td></td><td></td></tr> <tr><td>12. _____</td><td></td><td></td></tr> <tr><td>13. _____</td><td></td><td></td></tr> <tr><td>14. _____</td><td></td><td></td></tr> <tr><td>15. _____</td><td></td><td></td></tr> <tr><td>16. _____</td><td></td><td></td></tr> </tbody> </table>	Dominant Plant Species	Stratum	Indicator	9. _____			10. _____			11. _____			12. _____			13. _____			14. _____			15. _____			16. _____		
Dominant Plant Species	Stratum	Indicator																													
9. _____																															
10. _____																															
11. _____																															
12. _____																															
13. _____																															
14. _____																															
15. _____																															
16. _____																															
2.	<u>willow (species)</u>		<u>FACW</u>																												
3.	<u>(see sample)</u>																														
4.																															
5. <u>10A</u>	<u>algae growth</u>		<u>FACW</u>																												
6. <u>Cattail</u>	<u>emergent new growth</u>																														
7. <u>RCG</u>	<u>dom</u>																														
	<u>SW quadrant is disturbed/fill material</u>																														

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

Remarks: BA
reed canopy dominant vegetation / only veg in wetland
3' wetland band south of GPS point

9A veg. thick stand of willow dominant plant in area but reed canopy is tall all year long

HYDROLOGY

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

Field Observations:	10A	9A	8A	
Depth of Surface Water:	<u>2"</u>	<u>4"</u>	<u>2"</u>	(in.)
Depth to Free Water in Pit:	<u>2"</u>	<u>4"</u>	<u>2"</u>	(in.)
Depth to Saturated Soil:	<u>2"</u>	<u>0"</u>	<u>2"</u>	(in.)

<u>9A</u> <u>8A</u> Wetland Hydrology Indicators: <u>10A</u> Primary Indicators: <input checked="" type="checkbox"/> <u>Inundated</u> <input checked="" type="checkbox"/> <u>Saturated in Upper 12 Inches</u> <input checked="" type="checkbox"/> <u>Water Marks</u> ___ Drift Lines ___ Sediment Deposits <input checked="" type="checkbox"/> <u>Drainage Patterns in Wetlands</u> <u>5</u> Secondary Indicators (2 or more required): ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)

Remarks:

Map Unit Name _____
 Series and Phase: _____
 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	A	Duff layer only plant vegetation				8A
3-12	B	2.5Y 2/0	none		sandy clay loam	
0-6	A	10YR 3/2	none		sandy loam	9A
6-12	B	10YR 2/1	none		sandy clay loam	
0-5	A	10YR 4/2	none			10A
5-12		2.5Y 2/0	none			

Hydric Soil Indicators:

- 9A BA ^{organic} 10A ^{hist?} 9A BA 10A
- 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:

ETLAND DETERMINATION

hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No
hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No

Remarks:

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

in GPS

Project/Site: <u>Wetland 8A (labelled as 7A - but this one will have two wetlands on either side of banks)</u> Applicant/Owner: <u>Plot's 839</u> Investigator: <u>Stoneran / Clarke</u>	Date: <u>05/29/06</u> County: <u>Larimer</u> State: <u>Colorado</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> </table>	Yes <input type="radio"/>	No <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Yes <input type="radio"/>	No <input type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Community ID: _____ Transect ID: _____ Plot ID: _____							

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Reed Canegrass</u>	<u>Dom</u>	<u>FACW</u>	9. _____	_____	_____
2. _____	_____	_____	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. _____	_____	_____	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
_____	_____	_____	16. _____	_____	_____

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

West Remarks: Reed Canegrass is the only plant within the 2 foot wetland band. To the south the channel is ~20' wide and opposite bank has no wetland veget. - Upland boundary mapped - Wetland boundary is 3' bank to south

East Reed Canegrass is only wetland plant and only plant species. Channel to north is ~20' wide with no wetland vegetation on North bank

HYDROLOGY

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

Map Unit Name
 Series and Phase): _____
 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.
0-5	A	10YR 3/2	none		
5-12	B	10YR 2/1	none		

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 Strreaking in Sandy Soils
- Listed on Local Hydric Soils List
- Listed on National Hydric Soils List
- Other (Explain in Remarks)

Remarks:

ETLAND DETERMINATION

hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)
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Remarks:



North I-25
Wetland 8A—W
5-24-6
Pg. 48



North I-25
Wetland 9A—SW
5-24-6
Pg. 48



North I-25
Wetland 10A—SW
5-24-6
Pg. 48

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NI 25 RR Pg 75
 Applicant/Owner: _____ Site: 8 Mailcreek
 Investigator: L. Backus Date: 5-9-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No
 Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No
 Ecological setting: Need trees/shrub planting for better path A17 → NE
 Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Phar</u>					
<u>NAST</u>					
<u>Cowpea-EMORYI</u>					

H - woody/non-wood <3.2', S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'
 Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.
 Photo # A14, 15, 16 Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Boxel W (FAC), Ulpu, Elan, Paduir, Rowa, mt. maple
Parthenoc, Brar, Hawthorne
 Soils: Wetland soils present? Yes No

Soil map unit series and phase: _____ Hydric soils list? Yes No

Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Texture, concretions, structure
<u>4-5</u>	<u>10YR 3/3</u>			<u>sandy clay loam</u>
<u>5-12</u>	<u>10YR 7/3</u>			
	<u>10YR 3/2</u>			

Mottle abundance: few = <2%, common = 2-20%, many = >20%
 Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H2S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled
- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
- Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No Mailcreek
 Depth of surface water 6-12" Depth to free water in pit 8' chute
 Depth to saturated soil Surface

Water sources: 3' wide flows from culvert
 Secondary wetland hydrology indicators: 10-15' wide flows combined
 Inundated: _____
 Saturated in upper 12" > 12.5% of growing season _____
 Water marks _____
 Sediment deposits _____
 Drainage pattern in wetlands _____

Goes to: _____
 Secondary indicators (need 2 or more):
 Oxidized root channels in upper 12"
 Water-stained leaves
 Local soil survey data
 Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No

Carter & Burgess Colorado Wetland Functional Assessment (May/June 2006)

Project NI 25 RR

Date 5-9-06

Evaluator L. Backus

Site ID mail cr.

Pg 75

Function	High	Moderate	Low
Habitat Diversity	Exceptional: 3 veg classes Open water Veg classes: High: 2 veg classes + open water Veg classes:	2 veg classes or open water Veg classes: <u>emergent shrub/tree</u>	1 veg class Veg class:
Wildlife / Fish Habitat	E, H, M habitat diversity Migratory stopover Substantial use by many species Species:	M habitat diversity Occasional migratory stopover M use by many species Species:	L habitat diversity Rare migratory stopover L species use Species:
Threatened & Endangered Species Habitat	Documented regular or occasional use Species:	Suspected regular or occasional use Species:	No known use by any T&E species
Flood Protection	Flooded wetL > 1 acre Much of wetland forest or scrub shrub No or restricted outlet	Flooded wetL < 1 acre Some of wetland forest or scrub shrub No or restricted outlet	Flooded wetL < 1 acre Little/ none of wetland forest/ scrub shrub Unrestricted outlet
Water Quality Improvement	WetL gets direct discharge of sediment/nutrients/toxicants Floods or ponds Restricted or no outlet >50% veg cover	<u>In between H and L</u>	WetL does not get direct discharge of sediment/nutrients/ toxicants Does not flood or pond Unrestricted outlet <50% veg cover
Bank / Shoreline Stabilization	>30% rooted vegetation Permanent/perennial water	<u><30% rooted vegetation</u> <u>Seasonal/intermittent water</u>	Very little rooted vegetation Temporary/ephemeral water
Food Chain Support	>1 acre wetL has outlet H-E habitat diversity Permanent/perennial water	<1 acre wetL may have outlet M habitat diversity <u>Seasonal/intermittent water</u>	<1 acre wetL w/o outlet L habitat diversity Temporary/ephemeral water
Hydrologic Cycle Maintenance	Groundwater recharge/discharge Vegetation transpiration	<u>Groundwater recharge/discharge</u> <u>Vegetation transpiration</u>	Groundwater recharge/discharge Vegetation transpiration
Production Export	High production of food products or other materials for human/wildlife use	<u>Moderate production of food products or other materials for human/wildlife use</u>	Low production of food products or other materials for human/wildlife use.
Education, Research	Wetland used for education/research or excellent potential for this use	In between H and L	No significant features
Recreation, Beauty	Destination site for bird watching, hunting, fishing, hiking, photography, art work	In between H and L	Not a desitination site
Uniqueness/ Heritage	Known archeological/historic sites, unusual aesthetic quality, unique geologic features, unique plant associations, uncommon animals	In between H and L	No significant features

Notes:



North I-25
A14
5-9-06
Mail Creek—S



North I-25
A15
5-9-06
Mail Creek—S



North I-25
A16
5-9-06
Mail Creek—S



North I-25
A-16
5-9-06
Mail Creek—E

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

Left Hand Creek, St. Vrain,

Project/Site: <u>I25 (Longmont & Metro North FOM Alternatives)</u> Applicant/Owner: _____ Investigator: _____	Date: <u>11/3/06</u> County: _____ State: <u>CO</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Yes <input checked="" type="radio"/></td> <td style="text-align: center;">No <input type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> <tr> <td style="text-align: center;">Yes <input type="radio"/></td> <td style="text-align: center;">No <input checked="" type="radio"/></td> </tr> </table>	Yes <input checked="" type="radio"/>	No <input type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Yes <input checked="" type="radio"/>	No <input type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Yes <input type="radio"/>	No <input checked="" type="radio"/>						
Community ID: <u>PSS/PEM</u> Transect ID: _____ Plot ID: _____							

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Salix exigua</u>	_____	_____	9. <u>Curly dock</u>	_____	_____
2. <u>Salix spp.</u>	_____	_____	10. _____	_____	_____
3. <u>Cottonwood</u>	_____	_____	11. _____	_____	_____
4. <u>Kypha spp.</u>	_____	_____	12. _____	_____	_____
5. <u>Phalaris carolinensis</u>	_____	_____	13. _____	_____	_____
6. <u>Sedge spp.</u>	_____	_____	14. _____	_____	_____
7. <u>Rush spp.</u>	_____	_____	15. _____	_____	_____
8. <u>Polygonum persicaria</u>	_____	_____	16. _____	_____	_____

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

Remarks: High probability of many other wetland vegetation species occurring on site that were not visible due to lateness in growing season

HYDROLOGY

<input checked="" type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <u>1-18</u> (in.) Depth to Free Water in Pit: <u>n/a</u> (in.) Depth to Saturated Soil: <u>n/a</u> (in.)	
Remarks: <u>Left Hand Creek, St. Vrain</u>	

SOILS

Map Unit Name
(Series and Phase): N.P.1

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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Soils assumed hydric based on dominance of wetland vegetation with an OBL or FACW indicator status.*

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

Remarks: *Lots of wildlife species observed in these areas at time of survey. Deer tracks, various small mammal tracks, many various duck/waterfowl species, song birds, and reptiles.*

Routine Wetland Determination (1987 COE Wetlands Delineation Manual)

Project, City/County, State: NT 25 RR

→ check # w/ GPS

Applicant/Owner: _____

Site: (14) upper portion of 12, Pg 70

Investigator: L. Backus

Date: 5-9-06 GPS # _____

Disturbed - Wetland indicators altered/removed w/in last 5 years by human activities/catastrophic natural events? Yes No

Problem Area - Wetland indicators periodically lacking due to normal seasonal environmental variations? Yes No

Ecological setting: _____

Vegetation: Wetland vegetation present? Yes No

Dominant species	Layer	Status	Dominant species	Layer	Status
<u>Chamaecrista?</u>	<u>Seeding</u>				
<u>Kochia</u>					

H - woody/non-wood <3.2'; S - woody >3.2', <3.0" dbh, T - woody >3.0" dbh of any height, V - woody, climbing >3.2'

Dominant species - most abundant species that exceed 50% of total cover, plus additional species comprising over 20% of total cover.

Photo # B2 → N *Dominants = OBL, FACW, FAC _____ % (Wetlands - 50% or greater of dominants = OBL, FACW, FAC)

Soils: Wetland soils present? Yes No

Sompsals

Soil unit series and phase: _____

Horizon	Matrix color	Mottle color	Mottle abundance/contrast	Hydric soils list? Yes No
<u>0-12</u>	<u>0YR 4/2</u>	<u>1.5 YR 4/6</u>	<u>Most in bottom 6"</u>	<u>Sandy clay</u>

Mottle abundance: few = <2%, common = 2-20%, many = >20%

Mottles prominent/distinct: same hue - value varies by 3 units, chroma by 2; different hue - value and chroma vary by 1 unit

- Non-sandy hydric soil indicators:
- Histosol
 - Histic epipedon
 - H₂S odor
 - Aquic moisture regime (gw to surface)
 - Peraquic moist. regime (capillary action brings gw to surface)
 - Fe/Mg recent concretions
 - Reducing conditions (a-a-dipyridil)
 - Gley
 - Chroma = 2/less in mottled, 1 or less in unmottled

- Sandy hydric soil indicators - add:
- Aquic moisture regime
 - High organic content in surface layer
 - Streaking of subsurface horizons by organic material
 - Organic accretions (muck balls just below surface)
 - Wet spodosol (dark red-br horizon beneath leached E horizon at water table depth)
 - Assume soils when all dominant plants are OBL and/or FACW

Hydrology: Wetland hydrology present? Yes No

Depth of surface water None Depth to free water in pit 4" Depth to saturated soil Surface

Water sources: Nat. drainage

- Wetland hydrology indicators:
- Flooded
 - Saturated in upper 12" > 12.5% of growing season
 - Water marks
 - Ripples
 - Sediment deposits
 - Drainage pattern in wetlands

- Goes to: _____
- Secondary indicators (need 2 or more):
- Oxidized root channels in upper 12"
 - Water-stained leaves
 - Local soil survey data
 - Fac-neutral test (>50% dom = OBL, FACW+, FACW)
 - Other: _____

Wetland Determination: Does this sampling point meet all 3 wetland criteria? Yes No

Do the wetland extend outside of study area boundaries? Yes No



North I-25
B1
5-9-06
West of ROW
Pg. 70



North I-25
B2
5-9-06
Site 14—N
Pg. 70

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>AV-2LS PN-39 Ft. Cuyton</u>		Date: <u>10/20/06</u>
Applicant/Owner: _____		County: <u>Corner</u>
Investigator: <u>Brad Stoneman</u>		State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes No Yes No Yes No	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: Built site with dirt lots - Ditches are present but adjacent to side with no wetland vegetation

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>No hydrology that would support wetlands is present</u>	

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *soil pit not reeded*

WETLAND DETERMINATION

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

Remarks:



North I-25
PN39
Fort Lupton



North I-25
PN39
Fort Lupton

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-125-PN38</u> Applicant/Owner: _____ Investigator: _____	Date: <u>10/06/06</u> County: _____ State: _____
Do Normal Circumstances exist on the site? _____ Yes No Is the site significantly disturbed (Atypical Situation)? _____ Yes No Is the area a potential Problem Area? _____ Yes No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: *No wetland vegetation was present on the site. The site contains mostly upland species and grasses on the vacant lots. Some manicured areas are present.*

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <i>No areas with standing or ponded water were noted.</i>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was needed.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input checked="" type="radio"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/>
Wetland Hydrology Present?	Yes <input checked="" type="radio"/>	
Hydric Soils Present?	Yes <input checked="" type="radio"/>	

Remarks: *Not a wetland area.*



North I-25
PN38



North I-25
PN38

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>Z-25N PN 37 / No station site</u>	Date: <u>10/20/06</u>
Applicant/Owner: _____	County: <u>Weld</u>
Investigator: <u>Brad Stoneman</u>	State: <u>CO</u>
Do Normal Circumstances exist on the site? Yes No	Community ID: _____ Transect ID: _____ Plot ID: _____
Is the site significantly disturbed (Atypical Situation)? Yes No	
Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	

VEGETATION

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

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

Remarks: Tree site

HYDROLOGY

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

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

WETLAND DETERMINATION

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

Remarks:

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

Project/Site: <u>N-I25 Station Alt. PN 357³⁶ North Side.</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>09/26/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: The site is almost completely bare.
A few scattered weeds and grasses and a couple trees are present.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>The site is completely dry, no standing water or saturated soil was observed.</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug.
No vegetation or wetland hydrology was noted.*

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: *Not a wetland.*

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

Project/Site: <u>N-I25 Station Alt. PN25 South Site.</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>09/26/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/> Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? Yes <input type="radio"/> No <input checked="" type="radio"/> (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: The site is nearly unvegetated. ~~From~~ 90% of the site consists of a tilled ag field. Some weedy vegetation is present along the borders of the site.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>The site is completely dry. no standing water or saturated soil was observed.</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug.
No vegetation or wetland hydrology was noted.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No (Circle)	Is this Sampling Point Within a Wetland? Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No (Circle)
Wetland Hydrology Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No (Circle)	
Hydric Soils Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No (Circle)	

Remarks: *Not a wetland*

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

Project/Site: <u>N-I-25 Station AH PN-34</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>09/29/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <input checked="" type="radio"/> Yes <input type="radio"/> No </div> <div style="text-align: center;"> <input type="radio"/> Yes <input checked="" type="radio"/> No </div> </div>
Community ID: _____ Transect ID: _____ Plot ID: _____	

VEGETATION

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

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

Remarks: No vegetation is present.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ <u>0</u> (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>There is no standing water in the area.</u>	

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *The soil has been excavated and is standing in piles within the station site.*

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: *Not a wetland,*

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks:

WETLAND DETERMINATION

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

Remarks:

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>I-25N PM 32</u>	Date: <u>10/20/06</u>
Applicant/Owner: _____	County: _____
Investigator: <u>Brad Stoneman</u>	State: _____
Do Normal Circumstances exist on the site? Yes No	Community ID: _____ Transect ID: _____ Plot ID: _____
Is the site significantly disturbed (Atypical Situation)? Yes No	
Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	

VEGETATION

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

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

Remarks: The site is dominated by paved areas and the built environment. Vegetation consist of landscaped areas along sidewalks and buildings.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>No standing pond water was observed.</u>

SOILS

Map Unit Name
(Series and Phase): _____
Taxonomy (Subgroup): _____

Drainage Class: _____
Field Observations
Confirm Mapped Type? Yes No

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

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was needed.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> NO (Circle)	(Circle)
Wetland Hydrology Present?	Yes <input type="checkbox"/> NO	
Hydric Soils Present?	Yes <input type="checkbox"/> NO	
Is this Sampling Point Within a Wetland?		Yes <input type="checkbox"/> NO

Remarks: *Not a wetland area*

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>A-125 PN 29</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/20/06</u> County: <u>Colimer</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: The vegetated areas outside the parking area contains upland vegetation only. The site is dominated by prairie dog colony.

HYDROLOGY

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

Remarks: No standing water or areas with obvious hydrology was observed. a drain outlet is located on the southeast end of the area but no water was observed even after the rain/snow. Prairie dogs are indicative of dry conditions.

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was needed. No hydrology or vegetation was present.*

WETLAND DETERMINATION

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

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

Remarks: *Not a wetland.*



North I-25
PN29



North I-25
PN29

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>M-I 25 PN 28</u> Applicant/Owner: _____ Investigator: <u>Brad Stone man.</u>	Date: <u>10/11/06</u> County: <u>Weld</u> State: <u>CO</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width:100%;"> <tr> <td style="text-align: center;"><input checked="" type="radio"/> Yes</td> <td style="text-align: center;"><input type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> </table>	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<input checked="" type="radio"/> Yes	<input type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
Community ID: _____ Transect ID: _____ Plot ID: _____							

VEGETATION

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

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

Remarks: ROE was not provided so a roadside observation of the site was made. From the road no wetland vegetation or obvious wetland areas were noted. The site was fallow agricultural land with sparse upland vegetation.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>From the roadside no area with wetland hydrology were visible.</u>	

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Right of Entry was not provided. No soil pit was dug.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	
Hydric Soils Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	

Remarks: It seems unlikely the area contains a wetland. Prior to any construction work associated with the N-ILS project a formal delineation must be conducted. ROE was subsequently obtained - No wetlands are on site



North I-25
PN28



North I-25
PN28



North I-25
PN28

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-125 PN 27 North site -</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/11/06</u> County: <u>Weld</u> State: <u>CO</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width:100%; border: none;"> <tr> <td style="text-align: center;"><input checked="" type="radio"/> Yes</td> <td style="text-align: center;"><input type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> </table>	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<input checked="" type="radio"/> Yes	<input type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
Community ID: _____ Transect ID: _____ Plot ID: _____							

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. _____	_____	_____
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: Vegetation was observed from the adjacent frontage road. The site consists of fallow agricultural land with mostly bare soil and upland weedy vegetation. No wetland vegetation was seen from the road.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>From observation from the road the site does not appear to have any areas with wetland hydrology. A concrete drainage ditch is along the northern project boundary but it does not contain vegetation.</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soils were taken. No hydrologic or hydric vegetation was observed from the road.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> (Circle)	(Circle)
Wetland Hydrology Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/>	
Hydric Soils Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/>	
		Is this Sampling Point Within a Wetland? Yes <input type="checkbox"/> <input checked="" type="checkbox"/>

Remarks: *Based on roadside observations it does not appear that any wetland is located on the site or that the project site conditions are conducive to allowing wetlands to form. If a formal delineation is not conducted prior to purchase of the site a formal delineation must be conducted prior to ground disturbance for purposes of RTP construction.*



North I-25
PN27—North Site



North I-25
PN27—North Site

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

Project/Site: <u>N-1 25 PN 27 South.</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/11/06</u> County: <u>Carver</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: *The site contains no vegetation. The site has been plowed and planted w/ alfalfa*

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 standing or ponded water on-site*

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug. No vegetation or hydrology was observed.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	Is this Sampling Point Within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	
Hydric Soils Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (Circle)	

Remarks: *There are no wetlands within this area.*



North I-25
PN27—S



North I-25
PN27—S



North I-25
PN27—S

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>NE25 PN 24025026</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/11/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/>
Community ID: _____ Transect ID: _____ Plot ID: _____	

VEGETATION

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

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

Remarks: The site contains upland vegetation and a few scattered trees. The site is fallow agriculture at this time and does not contain any wetland species.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	
Remarks: <u>There is no ponded water or areas that would facilitate wetland hydrology. Soil was moist due to recent rain, but would quickly dry.</u>	

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug. No hydrology or wetland vegetation was present.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input checked="" type="radio"/> No (Circle)	(Circle)
Wetland Hydrology Present?	Yes <input checked="" type="radio"/> No	
Hydric Soils Present?	Yes <input checked="" type="radio"/> No	
Is this Sampling Point Within a Wetland?		Yes <input checked="" type="radio"/> No

Remarks: *No wetlands are within the project/proposed station area.*



North I-25
PN27



North I-25
PN27

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>M-I25 PN-22 ^{and 3} Hwy 119 North</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/10/06</u> County: <u>Carimer/Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/>
Community ID: _____ Transect ID: _____ Plot ID: _____	

VEGETATION

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

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

Remarks: Site 1: The Park-n-ride site is partly paved and vegetated. The predominant vegetation is upland and consists of _____ . Some Corydoc is present but no other wetland indicator species are present.
Site 2: The western half of the site is developed with a trailer sales lot. The eastern half of the site is fallow agland ~~or upland~~ w/ upland vegetation.

Access to the site was not provided so a survey of the site was not possible. No wetland areas were seen from a distance, all areas seem to be bare or contain upland vegetation.

HYDROLOGY

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

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

Field Observations:

Depth of Surface Water: _____ (in.)

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

Depth to Saturated Soil: _____ (in.)

Remarks: No hydrology/standing/pooled water was seen within the trailer sales area. From a distance the eastern site area appeared mostly flat and no depressional areas that could collect water for 12 hrs unsited.

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Soil pits were not dug. No pits needed for the trailer sales yard.
No pit was dug on the eastern side due to the lack of right of entry.

WETLAND DETERMINATION

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

Remarks: It is unlikely wetlands exist on the project (eastern) proposed station location



North I-25
PN22 and PN23
Highway 119—N

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-I25 PN 21320</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/06/06</u> County: <u>Lincoln</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes <input checked="" type="radio"/> No Yes <input checked="" type="radio"/> No Yes <input checked="" type="radio"/> No
Community ID: _____ Transect ID: _____ Plot ID: _____	

VEGETATION

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

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

Remarks: The site contains both fallow/recently plowed fields as well as areas with growing crops. A farm house a farm area is in the south west corner. Unknown vegetation in the ditch due to lack of Right-of-Way.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>The site appears mostly dry with no standing water or ponds observed. There is a ditch that bisects the property. Due to lack of entry it was not possible to verify if the ditch contained water or had wetland hydrologic conditions.</u>

SOILS

Map Unit Name
(Series and Phase): _____
Taxonomy (Subgroup): _____

Drainage Class: _____
Field Observations
Confirm Mapped Type? Yes No

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

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No right-of-entry was obtained so it was not possible to check on soils within anywhere on the site or within the ditch.*

WETLAND DETERMINATION

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

Remarks: *It cannot be concluded if wetlands exist on the site or not. No right-of-entry was available for the site.*
Prior to any disturbances on the site associated with a project a formal wetland delineation must be conducted to conclude if or if not wetlands exist on the site.



North I-25
PN20 and PN21



North I-25
PN20 and PN21

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-125 PN 17/18/ Not a Station Area.</u> Applicant/Owner: _____ Investigator: <u>Brad Storeman</u>	Date: <u>10/20/06</u> County: <u>Cariner</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? Yes <input type="radio"/> <input checked="" type="radio"/> No Is the area a potential Problem Area? Yes <input type="radio"/> <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: The site (general vicinity of temp) contains agricultural fields. No wetland vegetation was observed from surrounding areas. No right-of-entry was granted. There may be ditches on site with wetland vegetation.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>No standing water was observed from offsite areas. There may be water within the ditches or other areas on site.</u>

SOILS

Map Unit Name (Series and Phase): _____
 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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug due to lack of Right-of-Entry.*

WETLAND DETERMINATION

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

Remarks: *It cannot be determined if wetlands exist within the areas. Right-of-entry was not granted so the sites were only viewable from surrounding areas. If these sites are chosen a formal site walk and if needed, wetland, delineation should be conducted.*

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-I 25 PN-15 BNSF 34</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/10/06</u> County: <u>Carimer</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: *There are small pockets of landscaped areas that contain mature trees (cottonwood, aspen, hawthorns), manicured grass lawns, and a few small lowlying shrubs.*

HYDROLOGY

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

Remarks: *The majority of the site 90% is paved or built on. There are a few depressional areas adjacent to the railroad but it is gravel lined and does not contain wetland vegetation. No other locations could capture or hold water for 12 days.*

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was needed, hydrology and wetland vegetation are absent*

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: *No wetlands within the station areas.*



North I-25
PN15
BNSF 34



North I-25
PN15
BNSF 34

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-125 PN-14 BNSF 29 Sites 1 and 2</u> Applicant/Owner: _____ Investigator: <u>Brad Stoveman</u>	Date: <u>10/10/06</u> County: <u>Colimer</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the area a potential Problem Area? Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>evergreen</u>			9. _____		
2. <u>deciduous</u>			10. _____		
3. <u>manicured grass</u>			11. _____		
4. _____			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

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

Remarks: The site consists of a developed area with commercial structures, parking lots and landscaped islands. No wetland vegetation is present.
Southern side contains an undeveloped lot with upland vegetation - maybe mowed regularly no long vegetation, pine trees.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>The site is paved or formally landscaped</u> <u>The southern undeveloped lot is relatively flat very few swales to capture water for extended length of time (12 days)</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit dug. Hydrology and vegetation were absent*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No (Circle)	(Circle)
Wetland Hydrology Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No	
Hydric Soils Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No	
Is this Sampling Point Within a Wetland?		Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No

Remarks: *Not a wetland area*



North I-25
PN14
BNSF 29
Sites 1 and 2



North I-25
PN14
BNSF 29
Sites 1 and 2



North I-25
PN14
BNSF 29
Sites 1 and 2



North I-25
PN14
BNSF 29
Sites 1 and 2

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-125 PN, 11, 12, and 13</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneeman</u>	Date: <u>10/20/06</u> County: <u>Colimer</u> State: <u>CO</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width:100%;"> <tr> <td style="text-align: center;"><input checked="" type="radio"/> Yes</td> <td style="text-align: center;"><input type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> </table>	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<input checked="" type="radio"/> Yes	<input type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
Community ID: _____ Transect ID: _____ Plot ID: _____							

VEGETATION

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

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

Remarks: *North is plowed completely - the site is bare ground and has recently been planted with halophytes. South parallel to the facilities - this area consist of a large parking area with no vegetation, built facilities, and some upland and landscaping on the edges of the road.*

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <i>No surface water was observed within the site area.</i>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soils were needed. No vegetation or hydrology was present on-site*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No (Circle)	(Circle)
Wetland Hydrology Present?	Yes <input type="checkbox"/> No	
Hydric Soils Present?	Yes <input type="checkbox"/> No	
Is this Sampling Point Within a Wetland?		Yes <input type="checkbox"/> No

Remarks: *No wetlands on the site.*



North I-25
PN11, PN12 and PN13



North I-25
PN11, PN12 and PN13

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

Project/Site: <u>N-I25 PN-89¹⁰ Crossroads</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/03/06</u> County: <u>Cariner</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: *No wetland vegetation is present. All vegetation consists of mowed grass areas, large evergreen and deciduous trees. There are open areas with limited vegetation mostly mowed grass & also a number of areas with bare ground.*

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <i>No standing or ponded water. A few engineered ditches are located throughout the site but no vegetation or tall grasses in the areas. A large detention basin in the NE corner basin contains mowed short grass.</i>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pits dug. No vegetation or hydrology.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (Circle)
Wetland Hydrology Present? Yes
Hydric Soils Present? Yes

Is this Sampling Point Within a Wetland? Yes (Circle)

Remarks: *No wetlands on site*

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

Project/Site: <u>N-125 PN7 - Windsor Hwy 392</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/03/06</u> County: <u>Carimer</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>cotton wood</u>			9. _____		
2. <u>blue spruce</u>			10. _____		
3. <u>Russian olive</u>			11. _____		
4. <u>low lying grasses</u>			12. _____		
5. <u>ground cover</u>			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

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

Remarks: The site is predominantly open with low lying grass cover. No wetland species were observed from available vantage points. Non hydrophytic tree species were observed.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>The site was viewed from the west and northern boundaries. No water was observed. A few dry ditches were noted, a concrete ditch is located on the north. The site is a dry now vacant agricultural field.</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Vegetation and hydrologic indicators were not present. Soil pit was not needed*

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: *No wetlands were observed*



North I-25
PN7—Windsor
Highway 392



North I-25
PN7—Windsor
Highway 392



North I-25
PN7—Windsor
Highway 392

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

Project/Site: <u>I-25 N PMS-Harmony North-Site 2</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneham</u>	Date: <u>10/03/06</u> County: <u>Cariver</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Cottonwood</u>			9. _____		
2. <u>Russian Olive</u>			10. _____		
3. <u>Aspen</u>			11. _____		
4. <u>Groundcover/shrubs</u>			12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

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

Remarks: The area is predominantly developed or used as parking areas and driveway. predominant vegetation is upland shrubs and large cottonwood trees.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>The site is mostly dry with a few small ditches surrounding the site. No standing water was seen.</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Soils were not needed due to the lack of vegetation and hydrology.*

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: *Not a wetland*



North I-25
PN5
Harmony North
Site 2

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

Project/Site: <u>N-I 25- PN 4-Timberline Sites 1 and 2</u> Applicant/Owner: _____ Investigator: _____	Date: <u>10/03/06</u> County: <u>Carimer</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. <u>Site 1-</u>		
2. <u>manicured grass</u>		
3. <u>ponderosa</u>		
4. <u>blue spruce</u>		
5. <u>maples</u>		
6. <u>shrubs</u>		
7. _____		
8. _____		

Dominant Plant Species	Stratum	Indicator
9. <u>Site 2</u>		
10. <u>maples</u>		
11. <u>shrubs-</u>		
12. _____		
13. _____		
14. _____		
15. _____		
16. _____		

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

Remarks: Site 1 contains manicured and landscaped vegetated areas. Site 2 is completely paved with landscaped islands. No wetland vegetation is present

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	None
Remarks: <u>Site 1 and 2</u> <u>No standing water was noted.</u>	

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Site 1 no soil pit needed, no vegetation or hydrology.*
Site 2 " " " " " " " "

WETLAND DETERMINATION

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

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

Remarks: *No wetlands in either site 1 or 2.*



North I-25
PN4
Timberline
Site 1



North I-25
PN4
Timberline
Site 1



North I-25
PN4
Timberline
Site 2

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

Project/Site: <u>N-125 - PN-3, Ft Collins South</u> Applicant/Owner: _____ Investigator: <u>Brad Streeman</u>	Date: <u>10/03/06</u> County: <u>Windsor</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/>
Community ID: _____ Transect ID: _____ Plot ID: _____	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>blue spruce</u>	<u>25%</u>		9. _____		
2. <u>douglas fir</u>	<u>25%</u>		10. _____		
3. <u>Austrian pine</u>	<u>25%</u>		11. _____		
4. <u>upland grasses/shrubs</u>	<u>25%</u>		12. _____		
5. _____			13. _____		
6. _____			14. _____		
7. _____			15. _____		
8. _____			16. _____		

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

Remarks: No wetland vegetation was observed

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>No open or standing water was noted</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was needed.
There is no wetland vegetation or hydrology on site.
There is a bare ditch on the northern property line - no veg or hydrology.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present? Yes (Circle)
Wetland Hydrology Present? Yes
Hydric Soils Present? Yes

Is this Sampling Point Within a Wetland? Yes (Circle)

Remarks: *No wetlands.*



North I-25
PN3
Fort Collins South



North I-25
PN3
Fort Collins South



North I-25
PN3
Fort Collins South



North I-25
PN3
Fort Collins South



North I-25
PN3
Fort Collins South



North I-25
PN3
Fort Collins South



North I-25
PN3
Fort Collins South

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-125 PN-2 FT Collins CS Station</u> Applicant/Owner: _____ Investigator: <u>Brad Stone</u>	Date: <u>10/20/06</u> County: <u>Coroner</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: Manicured and landscaped areas

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>No standing or ponded water</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit needed*

WETLAND DETERMINATION

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

Remarks:



North I-25
PN2
Fort Collins CSU Station



North I-25
PN2
Fort Collins CSU Station

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

Project/Site: <u>N-I 25 PN-1 sites 1, 2, and 3</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/03/06</u> County: <u>Carimer</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. <u>Site 1</u>		
2. <u>evergreen</u>		
3. <u>upland veg/weeds</u>		
4. _____		
5. <u>Site 2</u>		
6. <u>bare ground</u>		
7. <u>upland/weeds</u>		
8. _____		

Dominant Plant Species	Stratum	Indicator
9. <u>Site 3</u>		
10. <u>manicured grass</u>		
11. <u>evergreens</u>		
12. <u>SW corner</u>		
13. <u>Salix exigua</u>	<u>2-5'</u>	
14. <u>curly doc</u>	<u>2-5'</u>	
15. _____		
16. _____		

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC) Site 3

Remarks: This area contains a predominant mix of upland vegetation with 2 Salix exigua and about 10 curly doc plants. Willow is at the mouth of four drainage outlets only. Curly doc is mixed in and around the circular area. See pictures (no right of entry)

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)
- None observed

Remarks: No standing or ponded water was noted. If the drains provide enough water for the willow to establish, the hydrology for a "cattle" and does not seem to exist.

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Soils appear very dry. No Right of Entry obtained, no soil pit dug -
Soils at base of willows was dry*

WETLAND DETERMINATION

limited 3 willows and 2 15' cut ditches

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

Remarks: *Not a wetland*



North I-25
PN1
Site 1



North I-25
PN1
Site 2



North I-25
PN1
Site 3



North I-25
PN1
Site 3



North I-25
PN1
Site 3



North I-25
PN1
Site 3



North I-25
PN1
Site 3

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>N-125 - 9E, 10E, 11E, 12E, 13E, 14E, 15E</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/11/06</u> County: <u>Weld</u> State: <u>CO</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width:100%; border: none;"> <tr> <td style="text-align: center;"><input checked="" type="radio"/> Yes</td> <td style="text-align: center;"><input type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> </table>	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<input checked="" type="radio"/> Yes	<input type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
Community ID: _____ Transect ID: _____ Plot ID: _____							

VEGETATION

Dominant Plant Species	Stratum	Indicator
1. _____	_____	_____
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: The vegetated areas adjacent to USBS and Frontage Roads was upland.

HYDROLOGY

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

Remarks: There were a few ditches along the roads that may contain water at times of the year. No water was noted after terrains and no ditches contained wetland vegetation. One ditch contained some ponded water but no wetland vegetation.

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: Soil pit was not dug due to the lack of hydrology and vegetation

WETLAND DETERMINATION

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

Remarks:



North I-25
9E, 10E, 11E, 12E, 13E, 14E, 15E



North I-25
9E, 10E, 11E, 12E, 13E, 14E, 15E



North I-25
9E, 10E, 11E, 12E, 13E, 14E, 15E

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

Project/Site: <u>N-125-GE, FE, and BE</u> Applicant/Owner: _____ Investigator: _____	Date: <u>10/11/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: *The site contains all upland vegetation along the sides of US85 and the frontage road.*

HYDROLOGY

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

Remarks: *No hydrology needs wetland characteristics was noted. The isolated ditches may contain water in early spring but no vegetation was present and water likely infiltrates, sun-dries, or evaporates rapidly.*

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was needed. No hydrology or wetland vegetation was present.*

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: *Not a wetland*



North I-25
6E, 7E, 8E



North I-25
6E, 7E, 8E



North I-25
6E, 7E, 8E



North I-25
6E, 7E, 8E

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

Project/Site: <u>N/I-25 - 5E</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>09/29/06</u> County: <u>Weld</u> State: <u>CO</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%;"> <tr> <td style="text-align: center;"><input checked="" type="radio"/> Yes</td> <td style="text-align: center;"><input type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> </table>	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<input checked="" type="radio"/> Yes	<input type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
Community ID: _____ Transect ID: _____ Plot ID: _____							

VEGETATION

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

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

Remarks: *All vegetation is upland and is mostly grasses and weeds. There are ditches along US 85 but all vegetation is upland. No wetland indicator species.*

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <i>The entire area is very dry. No surface water was observed within the station area.</i>

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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug.
Neither hydrology or vegetation was present.*

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: *Not a wetland.*

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

Project/Site: <u>N-125 - 4E</u> Applicant/Owner: _____ Investigator: _____	Date: <u>09/29/06</u> County: <u>Weld</u> State: <u>CO</u>						
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><input checked="" type="radio"/> Yes</td> <td style="text-align: center;"><input type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> <tr> <td style="text-align: center;"><input type="radio"/> Yes</td> <td style="text-align: center;"><input checked="" type="radio"/> No</td> </tr> </table>	<input checked="" type="radio"/> Yes	<input type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No	<input type="radio"/> Yes	<input checked="" type="radio"/> No
<input checked="" type="radio"/> Yes	<input type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
<input type="radio"/> Yes	<input checked="" type="radio"/> No						
Community ID: _____ Transect ID: _____ Plot ID: _____							

VEGETATION

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

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

Remarks: All vegetation is upland. vegetation consists of weeds and grasses

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>No water or moisture of any kind was observed.</u>

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug. No wetland vegetation or wetland hydrology was observed.*

VETLAND DETERMINATION

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

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

Remarks: *Not any wetlands within the proposed station location.*

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

Project/Site: <u>N/E 25 PN 2 East 3E</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>10/11/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Yes No Is the site significantly disturbed (Atypical Situation)? Yes No Is the area a potential Problem Area? Yes No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: The sites, station / Que jump does not contain any wetland vegetation. Upland species, bare soil, or concrete/structures, cover the surface.

HYDROLOGY

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

Remarks: Some areas contain ponded water but significant hydrology or hydrologic conditions do not exist.

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug. No hydrologic or hydric vegetation was present.*

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: *No wetlands on the site.*



North I-25
PN2E and PN3E

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

Project/Site: <u>N-I25 1E</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneham</u>	Date: <u>09/26/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/>
Community ID: _____ Transect ID: _____ Plot ID: _____	

VEGETATION

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

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

Remarks: The entire area contains upland vegetation or vegetation associated with land clearing.

HYDROLOGY

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

Remarks: The entire area is very dry, no standing water was observed. There were a few ditches (small) along the roads that likely conduct some water during wetter months. No vegetation associated w/ wetlands, however, was observed.

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____
Field Observations
Confirm Mapped Type? Yes No

Taxonomy (Subgroup): _____

Profile Description:

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

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Soils were observed to be very dry.
At the Northwest corner of US 85 and 31st street was a saturated but manicured
grass lawn. No wetland species were present*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No (Circle)	(Circle)
Wetland Hydrology Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No	
Hydric Soils Present?	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No	
		Is this Sampling Point Within a Wetland? Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No

Remarks:

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

Project/Site: <u>I-25 N PN's - 4W, 5W, and 6W</u> Applicant/Owner: _____ Investigator: <u>Brad Strneman</u>	Date: <u>10/11/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? <input checked="" type="radio"/> Yes <input type="radio"/> No Is the site significantly disturbed (Atypical Situation)? <input type="radio"/> Yes <input checked="" type="radio"/> No Is the area a potential Problem Area? <input type="radio"/> Yes <input checked="" type="radio"/> No (If needed, explain on reverse.)	Community ID: _____ Transect ID: _____ Plot ID: _____

VEGETATION

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

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

Remarks: The stations/Quejumps are located through the urban and area. vegetation in this area consists of upland vegetation in the limited undeveloped vacant areas and landscaped areas and manicured lawns. No wetland vegetation was noted.

HYDROLOGY

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

Remarks: Hydrology within the station/Quejump sites is limited. Most run off would be from the hardscape to drains or infiltrate through the landscaped parkways. One drainage ditch was noted but this area, although appeared wet, had a concrete line and is not vegetated with hydroic veg.

SOILS

Map Unit Name
(Series and Phase): _____
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.

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *No soil pit was dug. No hydrology or wetland vegetation was noted.*

WETLAND DETERMINATION

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

Is this Sampling Point Within a Wetland? Yes (Circle)

Remarks: *No wetland characteristics were noted except the small are not tined ditch which may have hydrology. However no wetland vegetation was present.*



North I-25
PN4W, PN5W, and PN6W



North I-25
PN4W, PN5W, and PN6W



North I-25
PN4W, PN5W, and PN6W



North I-25
PN4W, PN5W, and PN6W



North I-25
PN4W, PN5W, and PN6W



North I-25
PN4W, PN5W, and PN6W



North I-25
PN4W, PN5W, and PN6W



North I-25
PN4W, PN5W, and PN6W

ROUTINE WETLAND DETERMINATION
(1987 COE Wetlands Delineation Manual)

Project/Site: <u>NI25-PN-1W</u> Applicant/Owner: _____ Investigator: <u>Brad Stoneman</u>	Date: <u>09/29/06</u> County: <u>Weld</u> State: <u>CO</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes <input checked="" type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/> Yes <input type="radio"/> No <input checked="" type="radio"/>
Community ID: _____ Transect ID: _____ Plot ID: _____	

VEGETATION

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

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

Remarks: All upland vegetation - Island @ Promontory Circle contained manicured grass and other ornamental species - All other areas were very dry.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: _____ (in.) Depth to Free Water in Pit: _____ (in.) Depth to Saturated Soil: _____ (in.)	Remarks: <u>The entire area was very dry. No surface water was observed within the Station area.</u>

SOILS

Map Unit Name
(Series and Phase): _____

Drainage Class: _____

Taxonomy (Subgroup): _____

Field Observations
Confirm Mapped Type? Yes No

Profile Description:

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

Hydric Soil Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Concretions |
| <input type="checkbox"/> Histic Epipedon | <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils |
| <input type="checkbox"/> Sulfidic Odor | <input type="checkbox"/> Organic Streaking in Sandy Soils |
| <input type="checkbox"/> Aquic Moisture Regime | <input type="checkbox"/> Listed on Local Hydric Soils List |
| <input type="checkbox"/> Reducing Conditions | <input type="checkbox"/> Listed on National Hydric Soils List |
| <input type="checkbox"/> Gleyed or Low-Chroma Colors | <input type="checkbox"/> Other (Explain in Remarks) |

Remarks: *Due to the lack of hydrology and vegetation, no soil pit was needed.*

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No (Circle)	(Circle)
Wetland Hydrology Present?	Yes <input type="checkbox"/> No	
Hydric Soils Present?	Yes <input type="checkbox"/> No	
Is this Sampling Point Within a Wetland?		Yes <input type="checkbox"/> No

Remarks:

Not a wetland, Not one wetland criteria was present.



North I-25
PN1W

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 29-Jul-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 120703001063 Plot ID: 01

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. CAREX EMORYI	Herb	OBL	85	9. _____
2. CALAMAGROSTIS CANADENSIS	Herb	OBL	5	10. _____
3. ASCLEPIAS SPECIOSA	Herb	FACW	3	11. _____
4. APOCYNUM CANNABINUM	Herb	FAC	3	12. _____
5. BREEA ARVENSIS	Herb	FACU	2	13. _____
6. CYPERUS ERYTHORRHIZOS	Herb	OBL	1	14. _____
7. _____				15. _____
8. _____				16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	100
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Remarks: Species distribution is somewhat patchy with some areas dominated by Apocynum cannabinum. Some parts of this ditch with abundant Phalaroides, and one small area has Salix exigua.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input checked="" type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Banks of irrigation ditch	

SOILS

Plot ID: 01

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:							
Depth (inches)	Horizon	Matrix Color (Munsell Moist)		Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1	A	10YR	3/2			/ /	Silt Loam
1-5	B	10YR	3/2	10YR	3/1	5% / 0.1" / Med	Silty Clay Loam
5-12+	C	10YR	5/3			/ /	Silty Clay Loam
						/ /	
						/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Mottling in surface horizon indicates some surface flooding in addition to subirrigation.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
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Remarks: Banks of irrigation ditch. Mostly subirrigated, but occasionally flooded.

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **S01a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501624** Northing: **4455896**

Description: Soil profile.



Photo File: **S01b.jpg** Orientation Northwest -facing

UTM NAD83 meter: Easting: **501624** Northing: **4455896**

Description: Upgradient view of irrigation ditch.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 29-Jul-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 120702000013 Plot ID: 02

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. POPULUS DELTOIDES SSP. MONILIFERA	Tree	FAC	70	9. _____
2. ROSA WOODSII	Shrub	FACU	40	10. _____
3. BROMOPSIS INERMIS	Herb	*FACU	25	11. _____
4. PHALAROIDES ARUNDINACEA	Herb	FACW+	20	12. _____
5. CAREX EMORYI	Herb	OBL	20	13. _____
6. SALIX FRAGILIS	Tree	FAC	5	14. _____
7. APOCYNUM CANNABINUM	Herb	FAC	1	15. _____
8. BREEA ARVENSIS	Herb	FACU	1	16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	67
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Remarks: Mix of native and weedy species. Species distribution is patchy with large patches of each dominant understory species occurring at different locations.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input checked="" type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input style="width: 50px;" type="text"/> (in.) Depth to Free Water in Pit: <input style="width: 50px;" type="text"/> (in.) Depth to Saturated Soil: <input style="width: 50px;" type="text"/> (in.)	
Remarks: Obviously occasionally flooded, with small woody debris in low spots	

SOILS

Plot ID: 02

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 4/2		/ /	Silty Clay Loam
2-4	B	10YR 4/2		/ /	Clay Loam
4-8	C1	10YR 5/2	10YR 5/1	3 / 0.1" / Med	Silty Clay Loam
8-12+	C2	10YR 6/3	10YR 6/1	15 / 0.25" / High	Clay Loam
				/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input checked="" type="checkbox"/> Other (Explain in Remarks)
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Remarks: Mottling at surface and at depth indicates both surface saturation and subirrigation

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input type="text" value="Yes"/>
Wetland Hydrology Present?	<input type="text" value="Yes"/>	
Hydric Soils Present?	<input type="text" value="Yes"/>	

Remarks:

Approved by HQUSACE 3/92

Additional Comments:

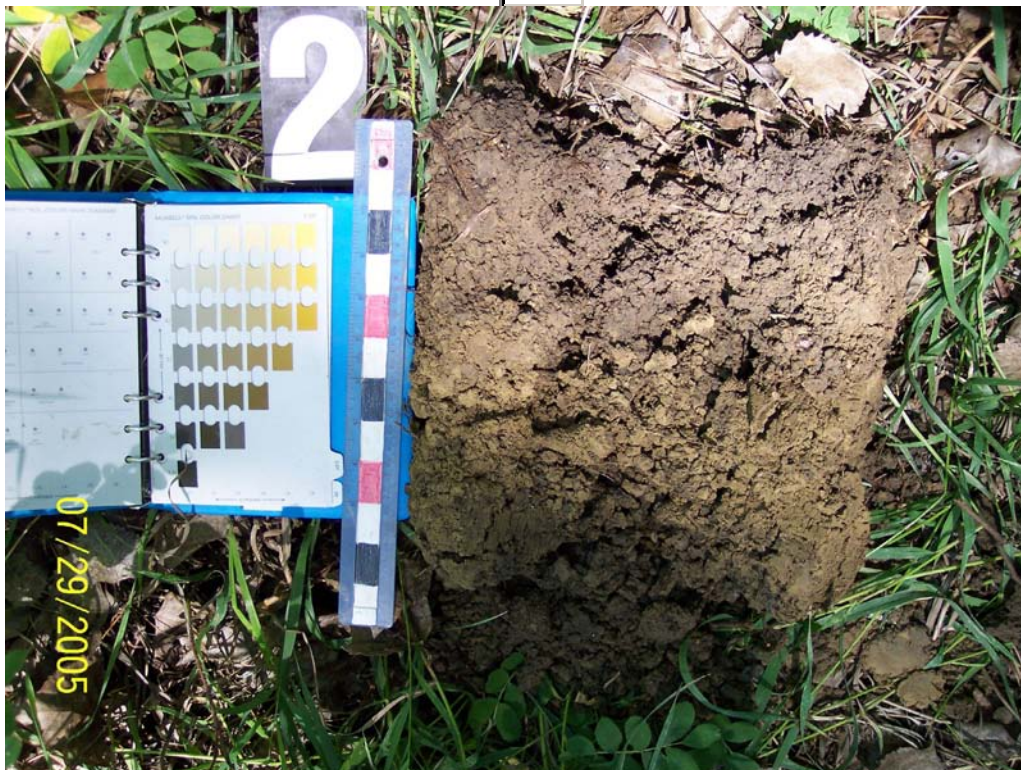


Photo File: **S02a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501852** Northing: **4455384**

Description: Soil profile.



Photo File: **S02b.jpg** Orientation North Northeast -facing

UTM NAD83 meter: Easting: **501852** Northing: **4455384**

Description: Site view. Relatively open tree canopy and dense understory.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 01-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: ROW Plot ID: 03

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. SALIX EXIGUA	Shrub	OBL	93	9. _____			
2. ELYMUS LANCEOLATUS	Herb	FAC	3	10. _____			
3. BROMOPSIS INERMIS	Herb	*FACU	1	11. _____			
4. LACTUCA SERRIOLA	Herb	FAC	1	12. _____			
5. ASCLEPIAS SPECIOSA	Herb	FAC	1	13. _____			
6. OENOTHERA VILLOSA SSP. STRIGOSA	Herb	FAC	1	14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	100
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Remarks: Soils not moist or saturated at time of sample.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input style="width: 50px;" type="text"/> (in.) Depth to Free Water in Pit: <input style="width: 50px;" type="text"/> (in.) Depth to Saturated Soil: <input style="width: 50px;" type="text"/> (in.)	
Remarks: Although soils were not saturated at time of sample, mottled soils indicates regular saturation.	

SOILS

Plot ID: 03

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:								
Depth (inches)	Horizon	Matrix Color (Munsell Moist)		Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast		Texture, Concretions, Structure, etc.
0-5	A/B	10YR	4/2	10YR	4/1	45% /	0.5" /	Med Silty Clay Loam
5-12+	C	10YR	4/2	10YR	4/1	5% /	0.75" /	Med Sandy Loam
						/	/	
						/	/	
						/	/	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Mottling in upper horizon indicates surface fsaturation.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Depression wetland. Photo west-facing.

Approved by HQUSACE 3/92

Additional
Comments:

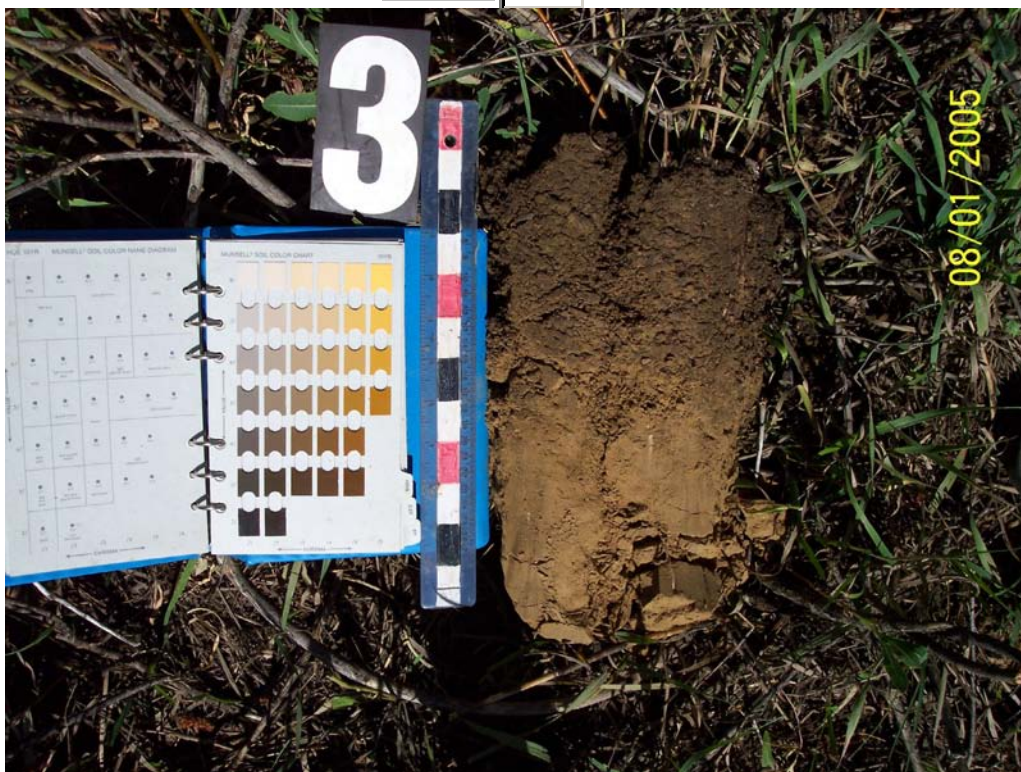


Photo File: **S03a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501501** Northing: **4461784**

Description: Soil profile.



Photo File: **S03b.jpg** Orientation West -facing

UTM NAD83 meter: Easting: **501501** Northing: **4461784**

Description: Site view of *Salix exigua* (Pss) wetland with *Salix exigua* (Pfo) wetland in background.

DATA FORM
ROUTINE WETLAND DETERMINATION
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Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 01-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="text" value="Yes"/> Is the site significantly disturbed (Atypical Situation)? <input type="text" value="No"/> Is the area a potential Problem Area? <input type="text" value="No"/> (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: ROW Plot ID: 04

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. TYPHA LATIFOLIA	Herb	OBL	100	9. _____			
2. _____				10. _____			
3. _____				11. _____			
4. _____				12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	<input style="width: 90%;" type="text"/>
---	--

Remarks:

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input style="width: 50px;" type="text" value="0.5"/> (in.) Depth to Free Water in Pit: <input style="width: 50px;" type="text" value="0"/> (in.) Depth to Saturated Soil: <input style="width: 50px;" type="text" value="0"/> (in.)	
Remarks: Standing water.	

SOILS

Plot ID: 04

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

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

Hydric Soil Indicators:

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

Remarks: Sample not necessary due to dimance by obligate species and abrupt wetland boundary..

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input style="width: 100%;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
Wetland Hydrology Present?	<input style="width: 100%;" type="text" value="Yes"/>	
Hydric Soils Present?	<input style="width: 100%;" type="text" value="Yes"/>	

Remarks: Photo East-facing, taken from west end of ditch.

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **None.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501339** Northing: **501339**

Description: Soil pit not needed.



Photo File: **S04b.jpg** Orientation East -facing

UTM NAD83 meter: Easting: **501339** Northing: **4461773**

Description: Irrigation ditch currently being reexcavated.

DATA FORM
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Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 106122000016 Plot ID: 05

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. POPULUS DELTOIDES SSP. MONILIFERA	Tree	FAC	90	9. _____
2. SALIX FRAGILIS	Tree	FAC	10	10. _____
3. SALIX EXIGUA	Shrub	OBL	15	11. _____
4. SYMPHORICARPOS ROTUNDIFOLIUS	Shrub	No	15	12. _____
5. PHALAROIDES ARUNDINACEA	Herb	OBL	5	13. _____
6. CAREX EMORYI	Herb	OBL	3	14. _____
7. ASCLEPIAS SPECIOSA	Herb	FAC	2	15. _____
8. _____				16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	86
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Remarks: Trees are in seepage areas, with areas of saturated soils. Tree canopy includes the lower slopes of the cut bank and some of the deposition areas of the channel.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text" value="0"/> (in.)	
Remarks: Seepage area that is also rarely flooded. Surface of Little Thompson River is about 3-4 feet of elevation below sample site and base of trees. Other patches of trees along river are often in similar seepage sites. Seepage may be natural or augmented by groundwater from adjacent agricultural irrigation.	

SOILS

Plot ID: 05

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:							
Depth (inches)	Horizon	Matrix Color (Munsell Moist)		Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-6	A-B	10YR	3/2	10YR	3/1	15 / 0.25" / Low	Silt Loam
6-9	C1	10YR	3/2	10YR	3/1	3 / 0.25" / Low	Sandy Loam
9-12+	C2	10YR	2/2	10YR	2/1	35 / 0.75" / Med	Sandy Clay Loam
						/ /	
						/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input checked="" type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Dark/Gley mottles and saturated soils in this area below the seep. Soils under trees but above seep are mottled in the surface horizons. Soils in deposition areas of channel are moist and more sandy.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Seepage and occasional flooding.

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **S05a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501402** Northing: **4461206**

Description: Soil profile. Number in photo is incorrect.



Photo File: **S05b.jpg** Orientation South southeast -facing

UTM NAD83 meter: Easting: **501402** Northing: **4461206**

Description: Site view. A small pool of standing water, separated from the river, occurs to the left but is not visible in photo.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 01-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 106122000016 Plot ID: 06

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. POPULUS DELTOIDES SSP. MONILIFERA	Tree	FAC		9. _____			
2. ELYMUS LANCEOLATUS	Herb	FAC		10. _____			
3. CHENOPODIUM BERLANDIERI	Herb	FAC*		11. _____			
4. _____				12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			
*Indicator prefix = assigned by delineator, not defined by FWS.				*Indicator prefix = assigned by delineator, not defined by FWS.			
Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).				66			
Remarks: The Elymus lanceolatus is the reclamation variant, not the native.							

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input style="width: 50px;" type="text"/> (in.) Depth to Free Water in Pit: <input style="width: 50px;" type="text"/> (in.) Depth to Saturated Soil: <input style="width: 50px;" type="text"/> (in.)	
Remarks: Marginal hydrology. Probably in 100yr floodplain, but rarely flooded. Irrigation tailwater/groundwater from adjacent fields also plays a part.	

SOILS

Plot ID: 06

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	A1	10YR 4/2	10YR 4/1	20 / 0.25" / Med	Sandy Loam
2-6	A2	10YR 3/3		/ /	Sandy Loam
6-12+	B	10YR 3/2	10YR 3/1	40 / 0.25" / Low	Sandy Clay Loam
				/ /	
				/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input checked="" type="checkbox"/> Other (Explain in Remarks)
--	---

Remarks: Some weak mottling at surface and at depth, so occasional surface saturation, but more frequent subirrigation. Textural and color differences indicates irregular inudation and sediment deposition.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Marginal PFO wetland probably originated when the stream was in a different topographic position and not so incised. This wetland is probably currently sustained by irrigation tailwater/subirrigation.

Approved by HQUSACE 3/92

Additional Comments:

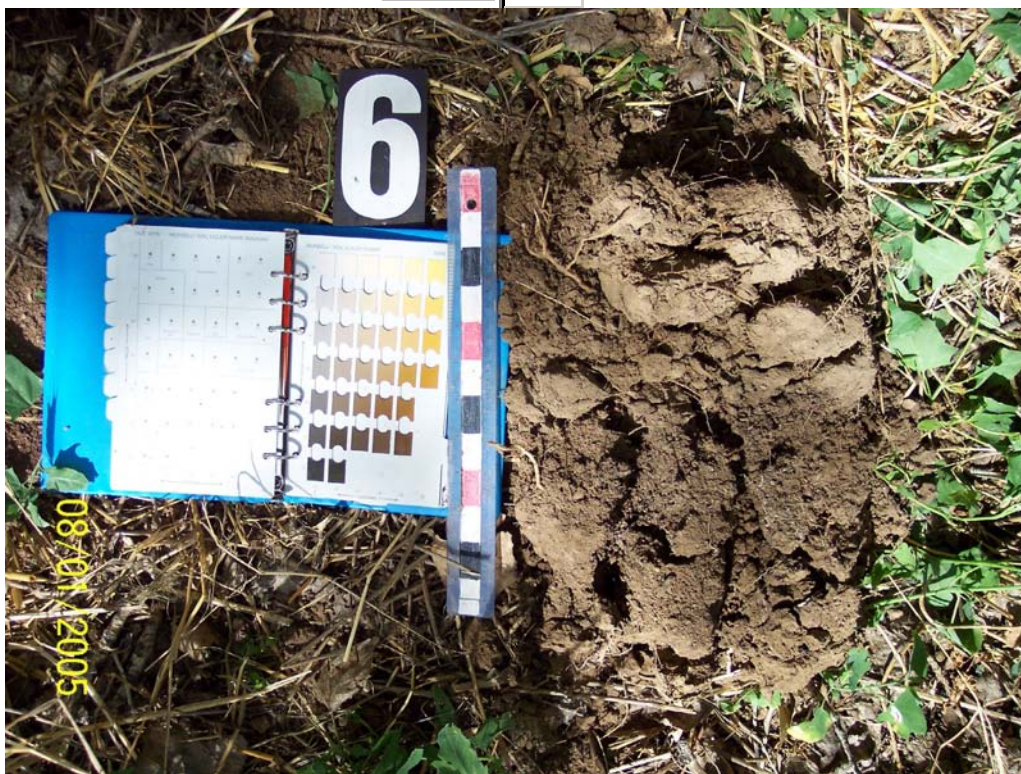


Photo File: **S06a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501555** Northing: **4461189**

Description: Soil Profile



Photo File: **S06b.jpg** Orientation South southwest -facing

UTM NAD83 meter: Easting: **501555** Northing: **4461189**

Description: Site view toward stream.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 02-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: ROW Plot ID: 07

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. PHALAROIDES ARUNDINACEA	Herb	FACW+	80	9. _____			
2. CAREX EMORYI	Herb	OBL	15	10. _____			
3. CALAMAGROSTIS CANADENSIS	Herb	OBL	3	11. _____			
4. SALIX EXIGUA	Shrub	OBL	8	12. _____			
5. BREEA ARVENSIS	Herb	FACU	2	13. _____			
6. SOLIDAGO CANADENSIS	Herb	FACU	2	14. _____			
7. RUMEX CRISPUS	Herb	FACW	1	15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks: Ditch wetland.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input style="width: 50px;" type="text"/> (in.) Depth to Free Water in Pit: <input style="width: 50px;" type="text"/> (in.) Depth to Saturated Soil: <input style="width: 50px;" type="text"/> (in.)	
Remarks: Flowing ditch.	

SOILS

Plot ID: 07

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

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

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input checked="" type="checkbox"/> Other (Explain in Remarks)
---	---

Remarks: No sample due to OBL and abrupt boundary.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Photo is SE-facing and was taken at the beginning of the concrete ditch.

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **None.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501707** Northing: **4456813**

Description:



Photo File: **S07b.jpg** Orientation Southeast -facing

UTM NAD83 meter: Easting: **501707** Northing: **4456813**

Description: Representative sample location was at right side of photo in Phalaroides. No wetland on left side foreground.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 03-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="text" value="Yes"/> Is the site significantly disturbed (Atypical Situation)? <input type="text" value="No"/> Is the area a potential Problem Area? <input type="text" value="No"/> (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 120710300019 Plot ID: 08

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. TYPHA LATIFOLIA	Herb	OBL	95	9. _____			
2. CHENOPODIUM BERLANDIERI	Herb	*FAC	3	10. _____			
3. BREEA ARVENSIS	Herb	FACU	1	11. _____			
4. SONCHUS ULIGINOSUS	Herb	FACW	1	12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks: Cattail wetland has some internal patches of Breea, Asclepias, Sonchus, Lepidium inslightly drier spots.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input style="width: 50px;" type="text"/> (in.) Depth to Free Water in Pit: <input style="width: 50px;" type="text"/> (in.) Depth to Saturated Soil: <input style="width: 50px; text-align: center; value: 0;" type="text"/> (in.)	
Remarks:	

SOILS

Plot ID: 08

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

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

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input checked="" type="checkbox"/> Other (Explain in Remarks)
---	---

Remarks: Not needed for OBL veg with abrupt boundary.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text"/>
Wetland Hydrology Present?	<input type="text" value="Yes"/>	
Hydric Soils Present?	<input type="text" value="Yes"/>	

Remarks:

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **None.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501618** Northing: **4453975**

Description: Soil pit not needed.



Photo File: **S08b.jpg** Orientation North -facing

UTM NAD83 meter: Easting: **501618** Northing: **4453975**

Description: Cattail wetland with standing water.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 03-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="text" value="Yes"/> Is the site significantly disturbed (Atypical Situation)? <input type="text" value="No"/> Is the area a potential Problem Area? <input type="text" value="No"/> (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 120710300019 Plot ID: 09

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. CARDARIA LATIFOLIA	Herb	FACW	25	9.			
2. CHENOPODIUM BERLANDIERI	Herb	*FAC	25	10.			
3. BASSIA HYSSOPIFOLIA	Herb	FACW	25	11.			
4. UNKNOWN FORB 1	Other	No info	10	12.			
5. BREEA ARVENSIS	Herb	FACU	10	13.			
6.				14.			
7.				15.			
8.				16.			

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks: Unknown is an annual with narrow lvs and distinct veins on stem.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Soils indicate that wetland is primarily subirrigated.	

SOILS

Plot ID: 09

Map Unit Name (Series and Phase): Drainage Class:
 Taxonomy (Subgroup): Field Observations Confirm Mapped Type?

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	
0-3	A	10YR	3/2	/ /	Loam	
3-12+	B/C	10YR	4/1	10YR	35% / 0.5" / Med	Silty Clay Loam
				/ /		
				/ /		
				/ /		

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Abundant oxy roots, and white mineral deposits.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="text"/> Yes	Is this Sampling Point Within a Wetland? <input type="text"/> Yes
Wetland Hydrology Present? <input type="text"/> Yes	
Hydric Soils Present? <input type="text"/> Yes	

Remarks:

Approved by HQUSACE 3/92

Additional Comments:



Photo File: **S09a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501576** Northing: **4453931**

Description: Soil profile.



Photo File: **S09b.jpg** Orientation West -facing

UTM NAD83 meter: Easting: **501576** Northing: **4453931**

Description: View of site with weedy composition. Cattail wetland in the background.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 03-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="text" value="Yes"/> Is the site significantly disturbed (Atypical Situation)? <input type="text" value="No"/> Is the area a potential Problem Area? <input type="text" value="No"/> (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: ROW <input type="text"/> Plot ID: <input type="text" value="10"/>

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. SPERGULARIA MEDIA	Herb	No*FACW	90	9. _____
2. SUAEDA CALCEOLIFORMIS	Herb	FACW	10	10. _____
3. BASSIA HYSSOPIFOLIA	Herb	FACW	5	11. _____
4. _____	_____	_____	_____	12. _____
5. _____	_____	_____	_____	13. _____
6. _____	_____	_____	_____	14. _____
7. _____	_____	_____	_____	15. _____
8. _____	_____	_____	_____	16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks: Subirrigated/depression with 100% veg cover.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Poorly drained site with clay soils adjacent to cattail wetland. Soils demonstrate subirrigation.	

SOILS

Plot ID: 10

Map Unit Name (Series and Phase): Drainage Class:
 Taxonomy (Subgroup): Field Observations Confirm Mapped Type?

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR 4/2	7.5YR 4/1	10% / 0.1" / Low	Silty Clay
3-8	B1	10YR 5/2	10YR 5/1	15% / 0.5" / Med	Silty Clay Loam
8-12+	B2	10YR 3/2	10YR 3/1	10% / 0.25" / Med	Clay Loam
				/ /	
				/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Mottling, and abundant oxy roots in B horizon. B1 may be old sediment deposition from highway construction. Soils were naturally moist at time of sample.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input type="text"/> Yes	Is this Sampling Point Within a Wetland? <input type="text"/> Yes
Wetland Hydrology Present? <input type="text"/> Yes	
Hydric Soils Present? <input type="text"/> Yes	

Remarks:

Approved by HQUSACE 3/92

Additional Comments:



Photo File: **S10a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501629** Northing: **4453951**

Description: Soil profile.



Photo File: **S10b.jpg** Orientation North -facing

UTM NAD83 meter: Easting: **501629** Northing: **4453951**

Description: Alkali crust in areas with wheel tracks.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 03-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: St.Vrain State Park Plot ID: <input type="text" value="11"/>

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. SALIX FRAGILIS	Tree	FAC	100	9. _____			
2. PHALAROIDES ARUNDINACEA	Herb	FACW+	20	10. _____			
3. _____				11. _____			
4. _____				12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks: Some similar areas dominated by Populus deltoides.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Sediment and woody debris deposition observed.	

SOILS

Plot ID: 11

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-3	A	10YR	3/2	/ /	Coarse Sandy Loam
3-12+	B/C	10YR	3/1	/ /	Silty Clay Loam
				/ /	
				/ /	
				/ /	
				/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Horizons are sediment deposition layers especially the A horizon.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks:

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **S11a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501655** Northing: **4446857**

Description: Soil profile.



Photo File: **S11b.jpg** Orientation South -facing

UTM NAD83 meter: Easting: **501655** Northing: **4446857**

Description: Site view. Primarily Salix fragilis, but some Populus deltoides as well. Small wood debris visible under tree canopy at left.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 06-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="text" value="Yes"/> Is the site significantly disturbed (Atypical Situation)? <input type="text" value="No"/> Is the area a potential Problem Area? <input type="text" value="No"/> (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: ROW Plot ID: 12

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. JUNCUS ARCTICUS SSP. ATER	Herb	OBL	60	9. _____
2. CAREX PRAEGRACILIS	Herb	FACW	30	10. _____
3. SCHOENOPLECTUS PUNGENS	Herb	OBL	25	11. _____
4. CRITESION JUBATUM	Herb	FACW	3	12. _____
5. AGROSTIS SCABRA	Herb	FAC	3	13. _____
6. _____	_____	_____	_____	14. _____
7. _____	_____	_____	_____	15. _____
8. _____	_____	_____	_____	16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks: Mixed species on fringe of Typha wetland.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Depression highway surface water runoff collection area.	

SOILS

Plot ID: 12

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 4/2	10YR 4/1	45% / 0.75" / Med	Silty Clay Loam
2-12	B/C	10YR 5/4	10YR 4/1	3% / 0.1" / Low	Sandy Clay Loam
				/ /	
				/ /	
				/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Oxy roots weakly present throughout B/C horizon. Soils are young and the result of highway construction.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks:

Approved by HQUSACE 3/92

Additional Comments:



Photo File: **S12a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501642** Northing: **4461708**

Description: Soil Profile.



Photo File: **S12b.jpg** Orientation North -facing

UTM NAD83 meter: Easting: **501642** Northing: **4461708**

Description: Shovel is located at sample location on the fringe of Typha wetland. Salix exigua (PSS) occurs at right side of Typha. Tree species is Norway maple (Acer platanoides) in upland.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 06-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="text" value="Yes"/> Is the site significantly disturbed (Atypical Situation)? <input type="text" value="No"/> Is the area a potential Problem Area? <input type="text" value="No"/> (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 120710000031 Plot ID: 13

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. BREEA ARVENSIS	Herb	FACU	45	9. _____
2. CAREX cf. UTRICULATA	Herb	OBL	40	10. _____
3. SCHOENOPLECTUS PUNGENS	Herb	OBL	10	11. _____
4. ASCLEPIAS SPECIOSA	Herb	FAC	1	12. _____
5. PHALAROIDES ARUNDINACEA	Herb	FACW+	1	13. _____
6. _____				14. _____
7. _____				15. _____
8. _____				16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	66
---	----

Remarks: Area was mowed (see photo). This is the upper end of this wetland. The lower end is also weedy but dominated by Typha. Not certain Which Carex species, no seed heads found.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Mottled soils in this tailwater/surface water collection area.	

SOILS

Plot ID: 13

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-1	A	10YR 3/2		/ /	Silty Clay Loam
2-5	B	10YR 4/2	10YR 4/1	25% / 0.25" / Med	Clay Loam
5-12	C	10YR 5/2	10YR 5/1	15% / 0.25" / Low	Silty Clay Loam
				/ /	
				/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input checked="" type="checkbox"/> Reducing Conditions <input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input type="checkbox"/> Other (Explain in Remarks)
---	--

Remarks: Oxy roots below 6". Mottled B and C horizons.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Site is a tailwater and highway surfacewater collection area. Lots of Breea.

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **S13a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501616** Northing: **4454612**

Description: Soil profile.



Photo File: **S13b.jpg** Orientation South -facing

UTM NAD83 meter: Easting: **501616** Northing: **4454612**

Description: Area was mowed. The lower end of this wetland in the background is also weedy but dominated by Typha. Tailwater is contributed from adjacent fields.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 06-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 1207110015 Plot ID: 14

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. CRITESION JUBATUM	Herb	FACW	70	9. _____			
2. SPERGULARIA MEDIA	Herb	No*FACW	25	10. _____			
3. CHENOPODIUM BERLANDIERI	Herb	*FAC	25	11. _____			
4. _____				12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks: This sample is in the drier phase of a large wetland . Typha and Schoenoplectus acutus in the wetter areas.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text" value="10"/> (in.) Depth to Saturated Soil: <input type="text" value="8"/> (in.)	
Remarks: Some areas of standing water. Tailwater and irrigation ditch seepage seems to be the main water source.	

SOILS

Plot ID: 14

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:						
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	
0-1	A	10YR	3/1	/ /	Silty Clay Loam	
2-12		10YR	4/1	10YR 5/1	15% / 0.5" / Med	Silty Clay
				/ /		
				/ /		
				/ /		

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Lots of oxy roots. Soils were moist at time of sample.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks:

Approved by HQUSACE 3/92

Additional Comments:



Photo File: **S14a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **502024** Northing: **4453920**

Description:



Photo File: **S14b.jpg** Orientation East -facing

UTM NAD83 meter: Easting: **502024** Northing: **4453920**

Description: Mowed area of wetland. This site is relatively dry compared to cattail/sedge/rush dominated areas.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 08-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: St. Vrain State Park Plot ID: 15

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. DISTICHLIS STRICTA	Herb	FACW	70	9. _____			
2. CRITESION JUBATUM	Herb	FACW	40	10. _____			
3. BASSIA SIEVERSIANA	Herb	FACU	5	11. _____			
4. _____				12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	66
---	----

Remarks: Slightly drier wetland area bordered by pem-Schoenoplectus acutus and pss Salix exigua.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text" value="12"/> (in.)	
Remarks: Alkali deposits at surface in small bare patches.	

SOILS

Plot ID: 15

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:							
Depth (inches)	Horizon	Matrix Color (Munsell Moist)		Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR	3/1			/ /	Silty Clay Loam
2-7	B/C1	10YR	4/2	10YR	4/1	25% / 0.1" / Low	Clay Loam with fine gravel
7-12+	B/C2	10YR	3/1	10YR	2/1	15% / 0.5" / High	Clay Loam with fine and coarse g
						/ /	
						/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Dark mottles in saturated zone.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Old gravel mine with young soils, prolonged saturation at about 12" due to elevated water table from pond. Photo is W-facing.

Approved by HQUSACE 3/92

Additional
Comments:

Photo File: **S15a.jpg**

Orientation



-facing

UTM NAD83 meter: Easting: **501610**Northing: **4446780**

Description: Soil profile.

Photo File: **S15b.jpg**

Orientation



West-facing

UTM NAD83 meter: Easting: **501610**Northing: **4446780**

Description: Slightly drier wetland area bordered by pem-Schoenoplectus acutus and pss Salix exigua.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 08-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: No ID may be ditch c Plot ID: <input type="text" value="16"/>

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. ULMUS PUMILA	Tree	No info	50	9. _____
2. FRAXINUS PENNSYLVANICA VAR. LANCE	Tree	*FAC	10	10. _____
3. SALIX FRAGILIS	Tree	FAC	5	11. _____
4. SALIX AMYGDALOIDES	Tree	FACW	3	12. _____
5. CAREX EMORYI	Herb	OBL	20	13. _____
6. PHALAROIDES ARUNDINACEA	Herb	FACW+	20	14. _____
7. _____				15. _____
8. _____				16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	<input type="text" value="83"/>
---	---------------------------------

Remarks: Indicator status assigned to 2 dominants.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input checked="" type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text" value="0"/> (in.) Depth to Saturated Soil: <input type="text" value="0"/> (in.)	
Remarks: Flowing ditch with steep banks.	

SOILS

Plot ID: 16

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

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

Hydric Soil Indicators:

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input checked="" type="checkbox"/> Other (Explain in Remarks)
---	---

Remarks: Soils were saturated, and bank too dangerous for sample.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input style="width: 100%;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
Wetland Hydrology Present?	<input style="width: 100%;" type="text" value="Yes"/>	
Hydric Soils Present?	<input style="width: 100%;" type="text" value="Yes"/>	

Remarks: Irrigation ditch with PFO and PEM in understory and in small patches.

Approved by HQUSACE 3/92

Additional Comments:



Photo File: **S16a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501537** Northing: **4445546**

Description:

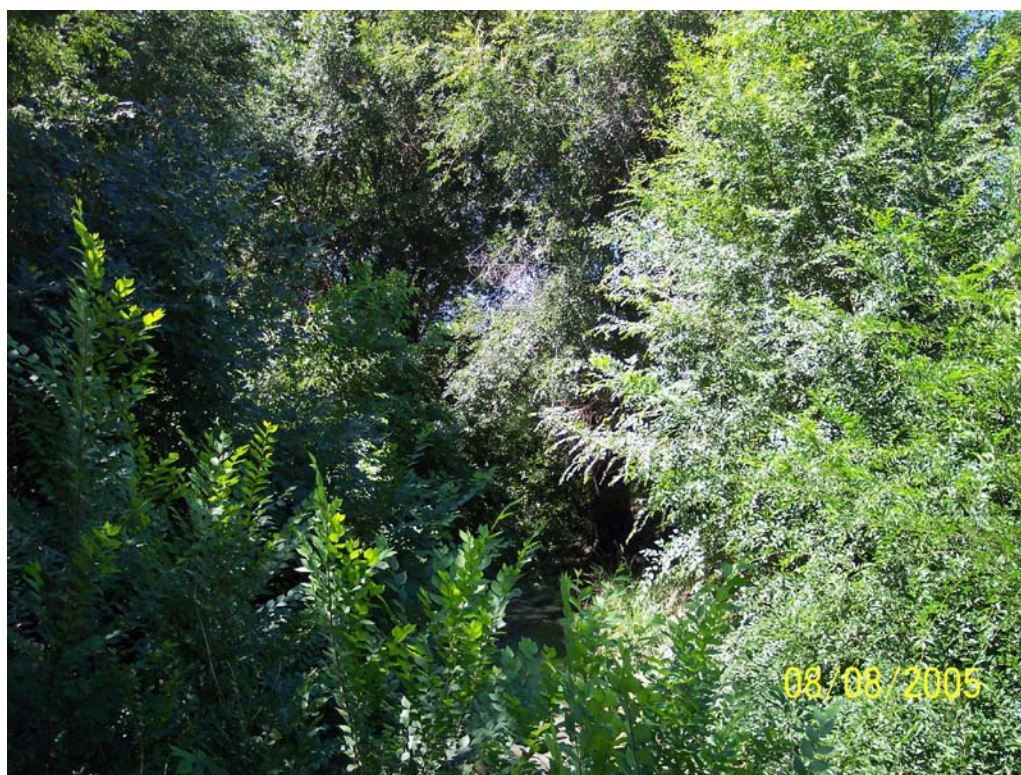


Photo File: **S16b.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501537** Northing: **4445546**

Description:

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 10-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 146702002008 Plot ID: 17

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. POLYGONUM DOUGLASII	Herb	FACU-	25	9. _____			
2. DIPLACHNE FASCICULARIS	Herb	OBL	15	10. _____			
3. CRITESION JUBATUM	Herb	FACW	10	11. _____			
4. _____				12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	66
---	----

Remarks: This is the drier limit of the areas that were mapped as wetland at this location. The non-wetland areas were dominated by Bassia and Chenopodium album.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input checked="" type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Soil was moist at time of sample, and soil was crusted into polygons.	

SOILS

Plot ID: 17

Map Unit Name (Series and Phase):

Taxonomy (Subgroup):

Drainage Class:

Field Observations Confirm Mapped Type?

Profile Description:

Depth (inches)	Horizon	Matrix Color (Munsell Moist)		Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast			Texture, Concretions, Structure, etc.
0-0.5	A	10YR	5/2	10YR	5/1	40%	0.5"	Med	Silt Loam
0.5-5	B/C1	10YR	5/2	10YR	5/3	5%	0.5"	Med	Silty Clay Loam
5-12+	B/C2	10YR	5/3	10YR	5/2	30%	1"	Med	Silty Clay
						/	/		
						/	/		

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Young soils with mottling development, and clay at about 5-6 inches that allows water to remain perched for prolonged periods.

WETLAND DETERMINATION

Hydrophytic Vegetation Present?	<input type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input type="text" value="Yes"/>
Wetland Hydrology Present?	<input type="text" value="Yes"/>	
Hydric Soils Present?	<input type="text" value="Yes"/>	

Remarks: Wetland area in a large flood detention basin. The site is a small depression with a clay pan.

Approved by HQUSACE 3/92

Additional Comments:

Photo File: **S17a.jpg**

Orientation



-facing

UTM NAD83 meter: Easting: **501889**Northing: **4437392**

Description:

Soil profile. Young soils with mottling development, and clay at about 5-6 inches that allows water to remain perched for prolonged periods. Soils were moist at time of sample.

Photo File: **S17b.jpg**

Orientation



West-facing

UTM NAD83 meter: Easting: **501889**Northing: **4437392**

Description:

This is the drier limit of the areas that were mapped as wetland here. The non-wetland areas were dominated by *Bassia* and *Cheno album*. Wetland area in a large flood

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 10-Aug-05 County: Weld State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 146702001004 Plot ID: 18

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. CRITESION JUBATUM	Herb	FACW	35	9. _____
2. DIPLACHNE FASCICULARIS	Herb	OBL	30	10. _____
3. POLYGONUM DOUGLASII	Herb	FACU-	10	11. _____
4. ECHINOCHLOA CRUS-GALLI	Herb	FACW	1	12. _____
5. _____	_____	_____	_____	13. _____
6. _____	_____	_____	_____	14. _____
7. _____	_____	_____	_____	15. _____
8. _____	_____	_____	_____	16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-).	66
---	----

Remarks: Wetter areas have standing water in tire ruts and more Diplachne. Drier areas have more Polygonum and some Bassia.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input style="width: 50px;" type="text" value="0.5"/> (in.) Depth to Free Water in Pit: <input style="width: 50px;" type="text"/> (in.) Depth to Saturated Soil: <input style="width: 50px;" type="text"/> (in.)	
Remarks: Surface water runoff from road and possibly water from adjacent water pipeline cleanout contribute to this small depression area.	

SOILS

Plot ID: 18

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 4/2	10YR 4/1	25% / 0.25" / Med	Silty Clay Loam
2-5	B	10YR 5/2	10YR 4/1	5% / 0.5" / Med	Silty Clay
5-8	C1	10YR 6/2	10YR 5/1	25% / 1" / High	Silty Clay
8-12	C2	10YR 5/1		/ /	Silty Clay
				/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input checked="" type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Abundant oxy roots at B/C contact zone. C1 with large distinct mottles, C2 is solid low chroma without mottles.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Surface water runoff accumulates here and the adjacent pipeline may leak providing the subsurface prolonged saturation.

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **S18a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501886** Northing: **4437089**

Description: Soil profile. Mottling in the upper horizon from surface water accumulation. Prolonged saturation at depth may be from leaking pipeline.



Photo File: **S18b.jpg** Orientation West -facing

UTM NAD83 meter: Easting: **501886** Northing: **4437089**

Description: Surface water runoff accumulates here and adjacent pipeline may leak providing subsurface prolonged saturation. Wetter areas have standing water in tire ruts and more Diplachne.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 11-Aug-05 County: Larimer State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 8527000020 Plot ID: 19

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	
1. HIPPOCHAETE LAEVIGATA	Herb	FACW	60	9. _____
2. BROMOPSIS INERMIS	Herb	*FACU	40	10. _____
3. ASCLEPIAS SPECIOSA	Herb	FAC	3	11. _____
4. BREEA ARVENSIS	Herb	FACU	1	12. _____
5. _____	_____	_____	_____	13. _____
6. _____	_____	_____	_____	14. _____
7. _____	_____	_____	_____	15. _____
8. _____	_____	_____	_____	16. _____

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks: Some areas with Phalaroides.

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Tailwater overflow and seepage provides surface saturation.	

SOILS

Plot ID: 19

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR 3/1	10YR 4/1	35% / 0.25" / Med	Silt Loam
2-12	B/C	10YR 4/2	10YR 3/1	5% / 0.25" / Low	Silt Loam
				/ /	
				/ /	
				/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input type="checkbox"/> Other (Explain in Remarks)

Remarks: Continuous slow sediment deposition and surface saturation from tailwater.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: This wetland fringe is a result of tailwater overflow from adjacent fields, but is stil a functional wetland, especially with regard to sediment trapping.

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **S19a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **501086** Northing: **4468959**

Description: Soil profile.



Photo File: **S19b.jpg** Orientation Northwest -facing

UTM NAD83 meter: Easting: **501086** Northing: **4468959**

Description: Sample is on slope below irrigated field. Phalaroides dominates at the bottom of the slope down to the Typha.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 24-Aug-05 County: Larimer State: Colorado
Do Normal Circumstances exist on the site? <input type="text" value="Yes"/> Is the site significantly disturbed (Atypical Situation)? <input type="text" value="No"/> Is the area a potential Problem Area? <input type="text" value="No"/> (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 861500001 Plot ID: 20

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. SUAEDA CALCEOLIFORMIS	Herb	FACW	85	9. _____			
2. BASSIA HYSSOPIFOLIA	Herb	FACW	10	10. _____			
3. DISTICHLIS STRICTA	Herb	FACW	5	11. _____			
4. _____				12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks:

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input checked="" type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input style="width: 50px;" type="text"/> (in.) Depth to Free Water in Pit: <input style="width: 50px;" type="text"/> (in.) Depth to Saturated Soil: <input style="width: 50px;" type="text"/> (in.)	
Remarks: Small playas in heavily grazed area.	

SOILS

Plot ID: 20

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:						
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.	
0-0.5	A	10YR	4/2	/ /	Silty Clay	
0.5-12	B/C	2.5Y	5/2	2.5Y 5/1	25% / 0.75" / Low	Clay
				/ /		
				/ /		
				/ /		

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Hard clay pan below top 0.5 inch. Large playa area.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Large playa area that is heavily grazed. Surface of soil with polygon cracks and some alkali deposits.

Approved by HQUSACE 3/92

Additional
Comments:



Photo File: **S20a.jpg** Orientation -facing

UTM NAD83 meter: Easting: **500947** Northing: **4481925**

Description: Soil profile, with *Bassia hysopifolia* on paper. Hard clay pan below top 0.5 inch.



Photo File: **S20b.jpg** Orientation West -facing

UTM NAD83 meter: Easting: **500947** Northing: **4481925**

Description: Large playa area that is heavily grazed. Surface of soil with polygon cracks and some alkali deposits. Weedy wetland species that are alkali tolerant dominate.

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

Project/Site: North I-25 EIS Wetland Delineation - Carter Burgess Applicant/Owner: Colorado Department of Transportation Investigator: Patrick Murphy	Date: 25-Aug-05 County: Larimer State: Colorado
Do Normal Circumstances exist on the site? <input type="checkbox"/> Yes Is the site significantly disturbed (Atypical Situation)? <input type="checkbox"/> No Is the area a potential Problem Area? <input type="checkbox"/> No (If needed, explain on reverse.)	Community ID: <input type="text"/> Transect ID: 8734110701 Plot ID: <input type="text" value="21"/>

VEGETATION

Dominant Plant Species	Stratum	Indicator	%	Dominant Plant Species	Stratum	Indicator	%
1. CRITESION JUBATUM	Herb	FACW	60	9. _____			
2. SCHOENOPLECTUS PUNGENS	Herb	OBL	25	10. _____			
3. JUNCUS ARCTICUS SSP. ATER	Herb	OBL	5	11. _____			
4. _____				12. _____			
5. _____				13. _____			
6. _____				14. _____			
7. _____				15. _____			
8. _____				16. _____			

*Indicator prefix = assigned by delineator, not defined by FWS.

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

Remarks:

HYDROLOGY

<input type="checkbox"/> Recorded Data (Describe in Remarks): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated in Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands Secondary Indicators (2 or more required): <input checked="" type="checkbox"/> Oxidized Root Channels in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input checked="" type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (Explain in Remarks)
Field Observations: Depth of Surface Water: <input type="text"/> (in.) Depth to Free Water in Pit: <input type="text"/> (in.) Depth to Saturated Soil: <input type="text"/> (in.)	
Remarks: Flood irrigation is the probable source of water.	

SOILS

Plot ID: 21

Map Unit Name (Series and Phase): <input style="width: 300px;" type="text"/>		Drainage Class: <input style="width: 100px;" type="text"/>	
Taxonomy (Subgroup): <input style="width: 300px;" type="text"/>		Field Observations Confirm Mapped Type? <input style="width: 50px;" type="text"/>	

Profile Description:							
Depth (inches)	Horizon	Matrix Color (Munsell Moist)		Mottle Colors (Munsell Moist)		Mottle Abundance/ Size/Contrast	Texture, Concretions, Structure, etc.
0-2	A	10YR	3/1			/ /	Silt Loam
2-7	B	10YR	3/1	10YR	4/1	10% / 0.1" / Low	Clay Loam
7-12+	C	10YR	3/1	10YR	3/2	10% / 0.1" / Low	Silt Loam
						/ /	
						/ /	

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histic Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input checked="" type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: Abundant oxy roots in B horizon.

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input style="width: 100px;" type="text" value="Yes"/> Wetland Hydrology Present? <input style="width: 100px;" type="text" value="Yes"/> Hydric Soils Present? <input style="width: 100px;" type="text" value="Yes"/>	Is this Sampling Point Within a Wetland? <input style="width: 100px;" type="text" value="Yes"/>
---	---

Remarks: Flood irrigation and clay soils are the probable sources for wetland development.

Approved by HQUSACE 3/92

Additional
Comments:

Photo File: **S21a.jpg**

Orientation

-facing

UTM NAD83 meter: Easting: **500564**Northing: **4487341**

Description: Soil profile.

Photo File: **S21b.jpg**

Orientation

South-facing

UTM NAD83 meter: Easting: **500564**Northing: **4487341**

Description: Flood irrigation and clay soils are the probable water sources for wetland development.

APPENDIX C

Agency Correspondence

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DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE, 9307 SOUTH WADSWORTH BLVD.
LITTLETON, COLORADO 80128-6901

July 25, 2005

Mr. David Nicol
Division Administrator
Federal Highway Administration
Colorado Federal Aid Division
12300 W. Dakota Avenue, Suite 180
Lakewood, Colorado 80228

RE: North I-25 Front Range EIS

Dear Mr. Nicol:

I'm writing this letter in response to your correspondence of July 19, 2005. In your letter, you requested that the Corps of Engineers (Corps) provide concurrence on the Purpose and Need Statement for the above referenced EIS. In response to your request, and in accordance with our NEPA/404 Merger Agreement, the Corps concurs with the Purpose and Need Statement.

Please extend my thanks to Ms. Jean Wallace and the project team for taking my earlier comments into consideration and revising the original draft Purpose and Need Statement. I believe the current statement more accurately reflects the purpose and need for the project. If you have any questions, please call me at 303-979-4120.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy T. Carey", is written over a circular stamp or seal.

Timothy T. Carey
Chief, Denver Regulatory Office



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, OMAHA DISTRICT
DENVER REGULATORY OFFICE, 9307 SOUTH WADSWORTH BOULEVARD
LITTLETON, COLORADO 80128-6901

July 29, 2008

Ms. Carol Parr
Colorado Department of Transportation
Planning/Environmental Section
1420 2nd Street
Greeley, CO 80631

**RE: North I-25 Environmental Impact Statement
Wetland Delineations along the I-25 Highway Corridor
Corps File No. 200480110**

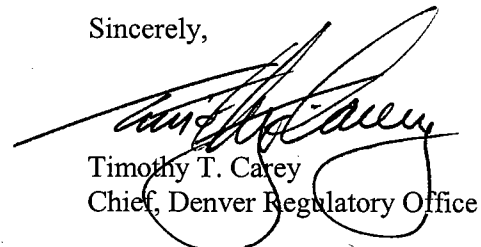
Dear Ms. Parr:

Mr. Terry McKee of my office has reviewed the July 28, 2008 wetland delineation report for this project. The wetland report and wetland mapping for this project is considered accurate and accepted by my office. This delineation verification is valid for 5 years from the date of this letter, unless there has been a change in hydrology.

If any work associated with this project requires the placement of dredged or fill material, and any excavation associated with a dredged or fill project, either temporary or permanent, in the aquatic sites identified in your delineation report, this office should be notified by a proponent of the project for Department of the Army permits, changes in permit requirements and jurisdictional determinations pursuant to Section 404 of the Clean Water Act. Work in an aquatic site should be shown on a map identifying the Quarter Section, Township, Range and County and Latitude and Longitude, Decimal Degrees (datum NAD 83) of the work and the dimensions of work in each area. Any loss of an aquatic site may require mitigation. Mitigation requirements will be determined during the Department of the Army permitting review.

If there are any questions regarding wetland determinations call **Mr. Terry McKee** at (303) 979-4120 and **reference Corps No. 200480110**. If there is any question regarding permitting and jurisdictional determinations call **Ms. Margaret Langworthy** at this office.

Sincerely,



Timothy T. Carey
Chief, Denver Regulatory Office

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