



**WESTERN  
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February 24, 2016

Matt Montgomery  
U.S. Army Corps of Engineers  
400 Rood Avenue, Room 224  
Grand Junction, CO 81501

RE: Wetland Delineation Report – ECO Trails Project, Minturn Segment

Dear Matt,

Please find enclosed a Wetland Delineation Report for the Minturn Segment of the ECO Trails Project in Eagle County. ECO Trails and the Town of Minturn are proposing to construct approximately 5,247 linear feet of trail within and adjacent to the County Road 14 right-of-way. We delineated wetlands along the proposed trail corridor in October, 2015 along a survey area that encompassed approximately 12.75 acres.

As summarized in the attached report, waters of the U.S. were identified along Game Creek, a perennial tributary of the Eagle River. Within the boundary of the delineation, 908 ft<sup>2</sup> of forested riparian wetlands and 1,002 ft<sup>2</sup> of aquatic habitat were identified, for a total of 1,910 ft<sup>2</sup> (0.04 acre) of waters of the U.S. No other wetlands or waters of the U.S. occur within the project area.

ECO Trails and the Town of Minturn request a preliminary jurisdictional determination for the trail project area.

Please call if you have questions.

Sincerely,

Heather Houston  
Ecologist

cc: Ellie Caryl  
Willy Powell  
Jeff Spanel  
Jim Kunkel

Enclosure



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# Wetland Delineation

## ECO Trails Project – Minturn Segment

Eagle County, Colorado

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*prepared for:*

**ECO Trails**

P.O. Box 1070, Gypsum, CO 81637

&

**Town of Minturn**

P.O. Box 309, Minturn, CO 81645

*prepared by:*

**Western Ecological Resource, Inc.**

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February 2016

## Executive Summary

ECO Trails program, in partnership with the Town of Minturn, is planning construction of the Minturn Segment of the regional trail system in Eagle County. The Minturn Segment encompasses approximately 5,247 linear feet of proposed trail to be constructed within and adjacent to the County Road 14 right-of-way.

To aid in project planning, a wetland delineation was conducted in accordance with the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement for the Western Mountains, Valleys and Coast. The boundary of the delineation along the proposed trail corridor measures approximately 12.75 acres.

As summarized in the following report, waters of the U.S. were identified along Game Creek, a perennial tributary of the Eagle River. Within the boundary of the delineation, 980 ft<sup>2</sup> of forested riparian wetlands and 1,002 ft<sup>2</sup> of aquatic habitat were identified, for a total of 1,910 ft<sup>2</sup> (0.04 acre) of waters of the U.S.

# Table of Contents

<u>Section / Title</u>	<u>Page</u>
1.0 Introduction .....	1
2.0 Environmental Setting .....	1
3.0 Delineation Methods.....	1
3.1 Agency Coordination.....	5
4.0 Wetlands Present .....	5
4.1 Game Creek Wetland .....	5
4.1.1 Location.....	5
4.1.2 Classification.....	5
4.1.3 Vegetation .....	5
4.1.4 Hydrology.....	5
4.1.5 Soils.....	5
5.0 Analysis of Jurisdictional Status.....	7
6.0 Photos.....	8
7.0 Tables .....	14
6.0 References .....	18
Appendix A. Field Data Forms.....	19

## List of Figures

<u>Number / Title</u>	<u>Page</u>
Figure 1. Project Location Map.....	2
Figure 2. Wetland Map, Sheet 1 of 2. ....	3
Figure 2. Wetland Map, Sheet 2 of 2. ....	4
Figure 3. Game Creek Wetland Detail. ....	6

## List of Tables

<u>Number / Title</u>	<u>Page</u>
Table 1. Waters of the U.S. Summary .....	15
Table 2. Vascular Plant Species List .....	16

## List of Photos

<u>Number / Title</u>	<u>Page</u>
Photo 1. Overview of the trail project area, view to the north. (10/26/15). ....	9
Photo 2. Overview of the trail project area, view to the south. (10/26/15). ....	9
Photo 3. The Minturn trail segment will begin in a disturbed area east of the CR14 Bridge.....	10
Photo 4. Proposed trail corridor adjacent to Pit 2. (10/26/15). ....	10
Photo 5. The orange stake marks the proposed trail centerline. (10/26/15). ....	11
Photo 6. Proposed trail alignment through the upland mountain shrub community. (10/26/15)..	11
Photo 7. Section of the proposed trail in an area with the noxious weed toadflax. (10/26/15). ....	12
Photo 8. Game Creek is a perennial tributary of the Eagle River. (10/26/15). ....	12
Photo 9. Paired soil pits 3 and 4 at the margin of the Game Creek Wetland. (10/26/15). ....	13
Photo 10. Reed canarygrass is abundant in the herbaceous wetland understory. (10/26/15). ....	13

## 1.0 Introduction

ECO Trails program, in partnership with the Town of Minturn, is planning construction of the Minturn Segment of the regional trail system in Eagle County. The Minturn Segment encompasses approximately 5,247 linear feet of proposed trail to be constructed adjacent to the County Road 14 right-of-way (ROW), and it will cross lands owned by the U.S. Forest Service, the Colorado State Land Board, and the Union Pacific Railroad. Specifically, the northern end of the proposed trail would begin just east of the County Road 14 Bridge over the Eagle River, approximately 1,300 feet southeast of Dowds Junction. The trail would extend to the southeast toward the junction of 6<sup>th</sup> Avenue and County Road 14. Specifically, the Minturn Trail segment is located in Sections 22, 23 and 26 of Township 5 South and Range 81 West in Eagle County, Colorado (Figure 1). To aid in project planning, wetlands were delineated on along a  $\pm 100$ -foot-wide corridor centered on the proposed trail alignment, which was staked in the field to facilitate the delineation. Where necessary, the corridor width varied to encompass the proposed trail work area. The boundary of the delineation measures approximately 12.75 acres.

This report describes the vegetation, soils, and hydrology of the Game Creek Wetland, located along a perennial tributary of the Eagle River that crosses the proposed trail. Please note, all Figures are located with the text; Photos are in Section 6.0 and Tables are in Section 7.0.

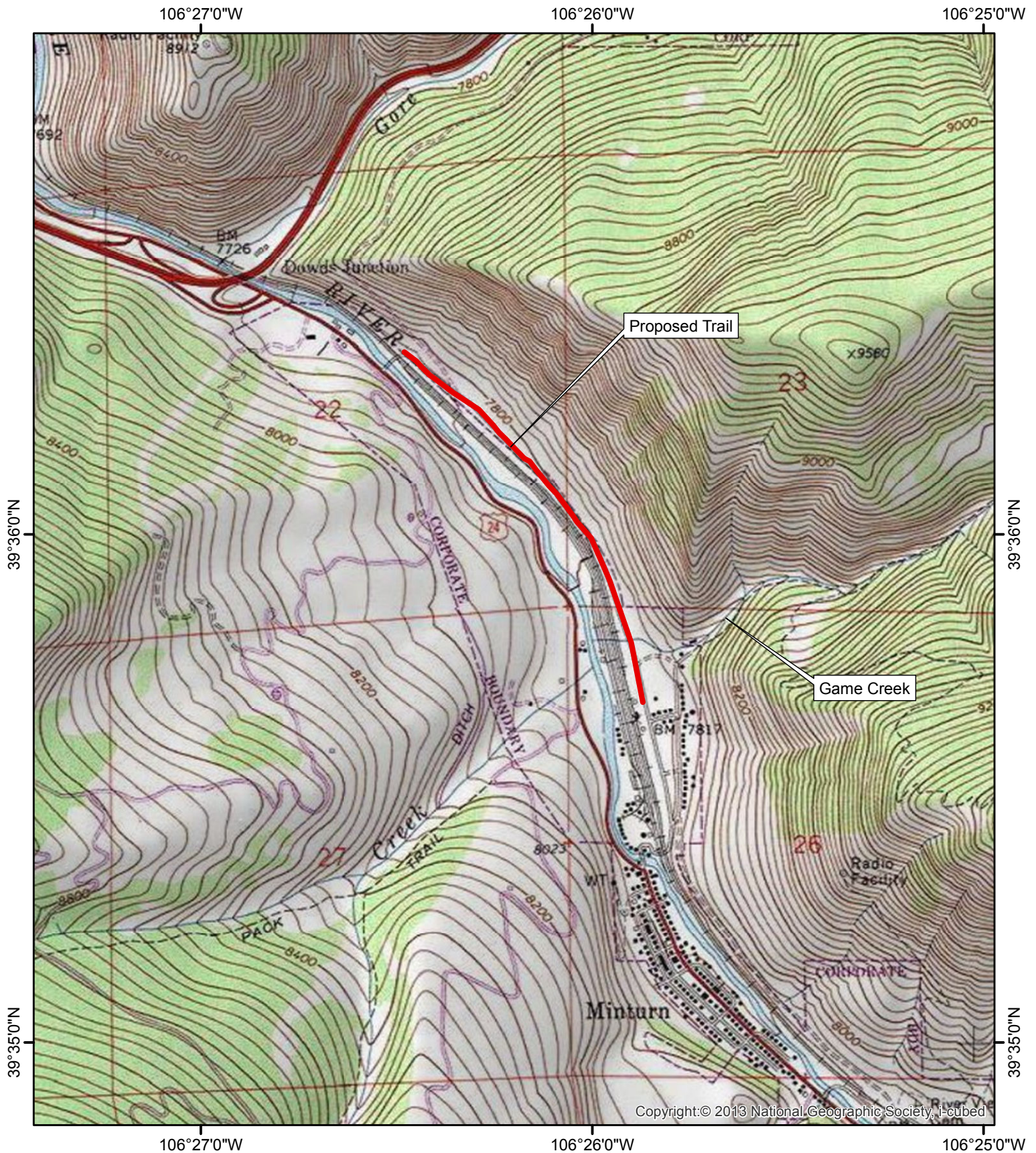
## 2.0 Environmental Setting

The proposed Minturn Segment of the ECO Trail system would be located east of County Road 14, and would approximately parallel the road (Photos 1 & 2). Portions of the trail would be located within the County Road 14 ROW, however as illustrated by Figure 2, it would also cross onto properties owned by the U.S. Forest Service, the Colorado State Land Board, and the Union Pacific Railroad. As described above, the northern end of the trail would begin in a disturbed area just east of the Union Pacific Railroad and the County Road 14 Bridge over the Eagle River (Photo 3). The majority of the proposed trail would be constructed through mountain shrublands and small stands of aspen in a lightly disturbed area just east of the unpaved County Road (Photos 4-6). However, in some areas the plant community has been degraded by invasive noxious weeds such as toadflax (*Linaria vulgaris*) (Photo 7).

Game Creek, a perennial tributary of the Eagle River, crosses the proposed trail corridor approximately 850 feet north of the junction of 6th Avenue and Minturn Road (Photo 8). The creek flows into a culvert below County Road 14, continues west below the railroad, and joins the Eagle River approximately 430 feet to the west of County Road 14. Elevations of the wetland delineation area range from a high of approximately 7,848 feet at the upstream end of Game Creek to a low of 7,770 feet in the north.

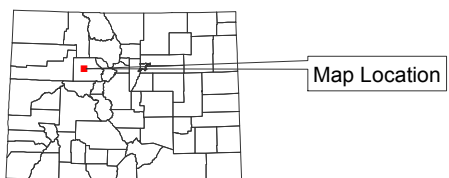
## 3.0 Delineation Methods

Wetlands were delineated by Heather Houston of Western Ecological Resource, Inc. and David Buscher of Buscher Soil & Environmental Consulting, Inc. in accordance with the U.S. Army Corps of Engineers Wetland Delineation Manual (1987) and the Regional Supplement for Western Mountains, Valleys and Coastal Region (May 2010) on October 26, 2015. In general, wetland boundaries were delineated and flagged based upon the prevalence of hydrophytic vegetation, hydric soils and indicators of a wetland hydrology. Field forms for the four test pits with vegetation, soil and hydrology data are included in Appendix A. These test pits are located in both wetland and upland habitats along the proposed trail alignment. In general, plant species names follow Weber and Whitmann (1992). The wetland status of plants follows the 2014 National List for the Western Mountains, Valleys and Coastal Region. Classification of wetlands follows Cowardin et al. (1979). Wetland flagging was surveyed by Inter-Mountain Engineering of Avon, Colorado.



BASE: USGS 7.5' Minturn Quadrangle, Colorado

**Figure 1. Project Location Map  
ECO Trails - Minturn Segment**



COLORADO

Map Location



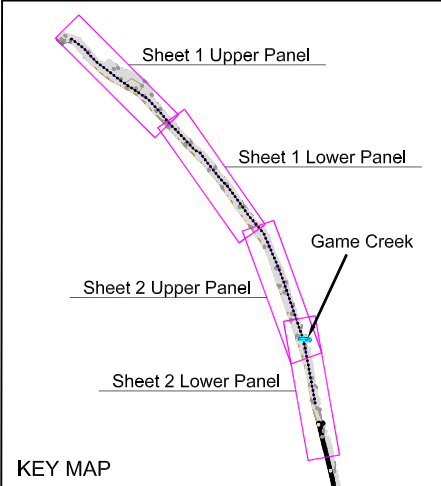
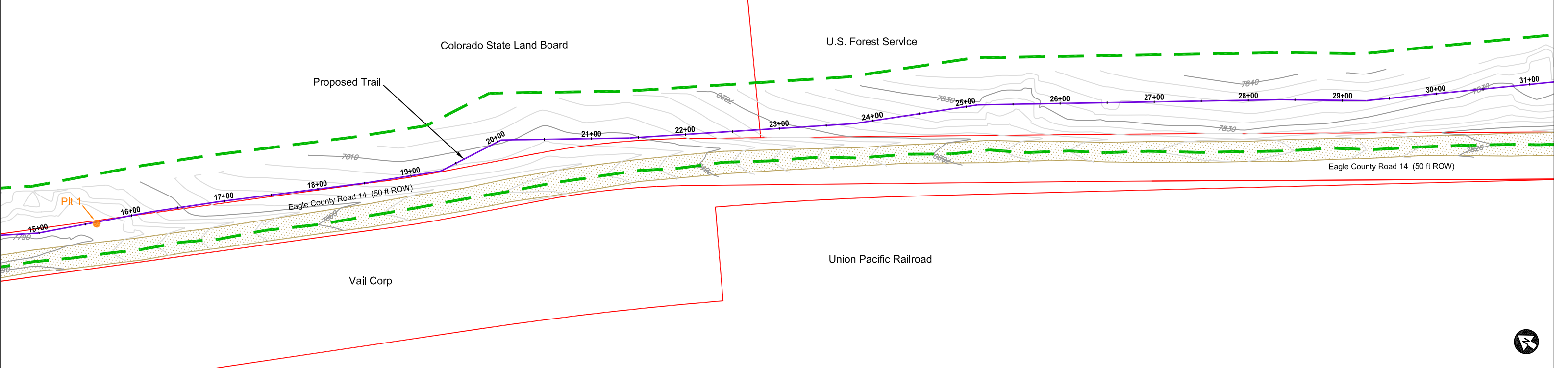
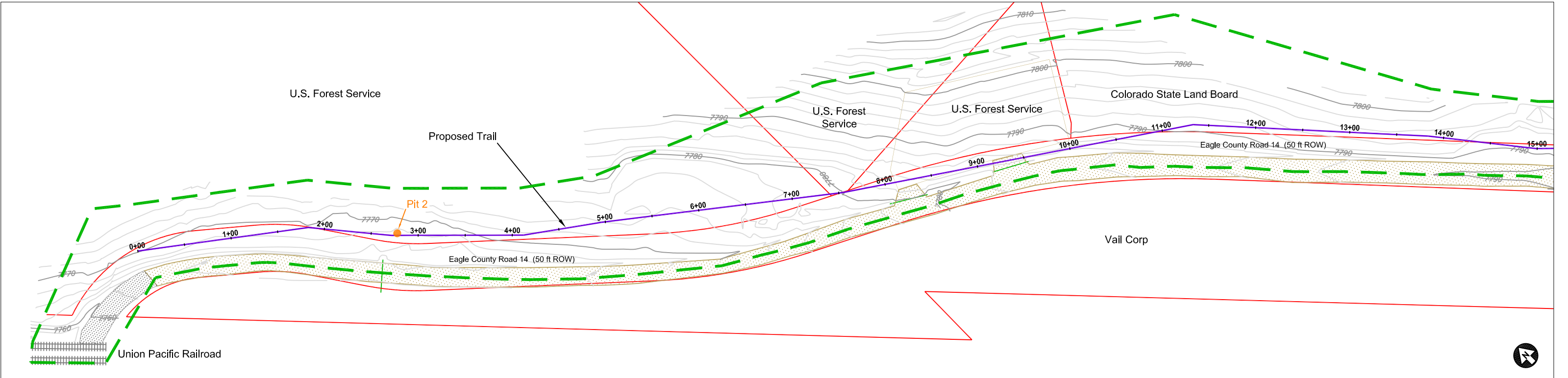
Scale 1:24,000

prepared by:

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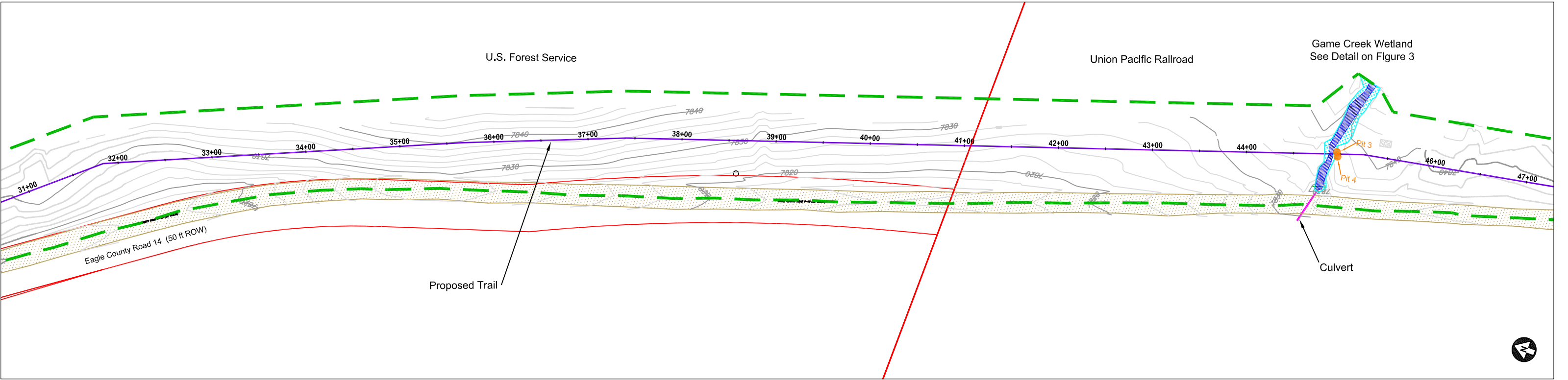
- Legend:**
- Wetlands
  - Aquatic Habitat
  - Pit 1
  - Wetland Delineation Boundary
  - Property Boundaries
  - Proposed Trail

Date: January 2016  
 Contour Interval: 2 ft  
 Scale: 1 in = 100 ft

Wetland flagging was surveyed by  
 Inter-Mountain Engineering of Avon, CO

**Figure 2. Wetland Map Sheet 1 of 2  
 Minturn Trail Segment  
 ECO Trails Project**

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### 3.1 Agency Coordination

The U.S. Army Corps of Engineers has not yet visited the project site to review the flagged wetland boundary.

## 4.0 Wetlands Present

### 4.1 Game Creek Wetland

The Wetland Map (Figure 2, Sheets 1 and 2) illustrates the boundary of the wetland delineation and the four soil pits evaluated along the proposed trail alignment. Wetlands were identified along Game Creek, a perennial stream that crosses the proposed trail near station 45+00. Approximately 908 square feet of riparian forested wetlands and 1,002 square feet of aquatic habitat were delineated along Game Creek within the trail project area, as illustrated by Figure 3.

#### 4.1.1 Location

Riparian wetlands were delineated along the banks of Game Creek and on a small floodplain within the Minturn Trail project area.

#### 4.1.2 Classification

The Game Creek Wetland is in the Palustrine System, Forested Wetland Class, with a Broad-Leaved Deciduous dominance type, according to Cowardin et al. (1979).

#### 4.1.3 Vegetation

Within the Minturn Trail project area, the Game Creek Wetland has a riparian overstory that is dominated by narrowleaf cottonwood (*Populus angustifolia*) and balsam poplar (*Populus balsamifera*) trees, with a few aspen (*Populus tremuloides*) (Photos 8 & 9). The diverse shrub layer includes mountain and Drummond willows (*Salix monticola*; *S. drummondiana*), redosier dogwood (*Cornus serotina*), thinleaf alder (*Alnus incana* ssp. *tenuifolia*), snowberry (*Symphoricarpos rotundifolius*), and serviceberry (*Amelanchier alnifolia*). The herbaceous wetland understory is dominated by reed canarygrass (*Phalaris arundinacea*), an aggressive introduced species (Photo 10). Orchard grass (*Dactylis glomerata*), a facultative upland grass, is common in the shady areas of the understory. Table 2 lists the vascular plant species observed in the Minturn Trail project area during the wetland delineation.

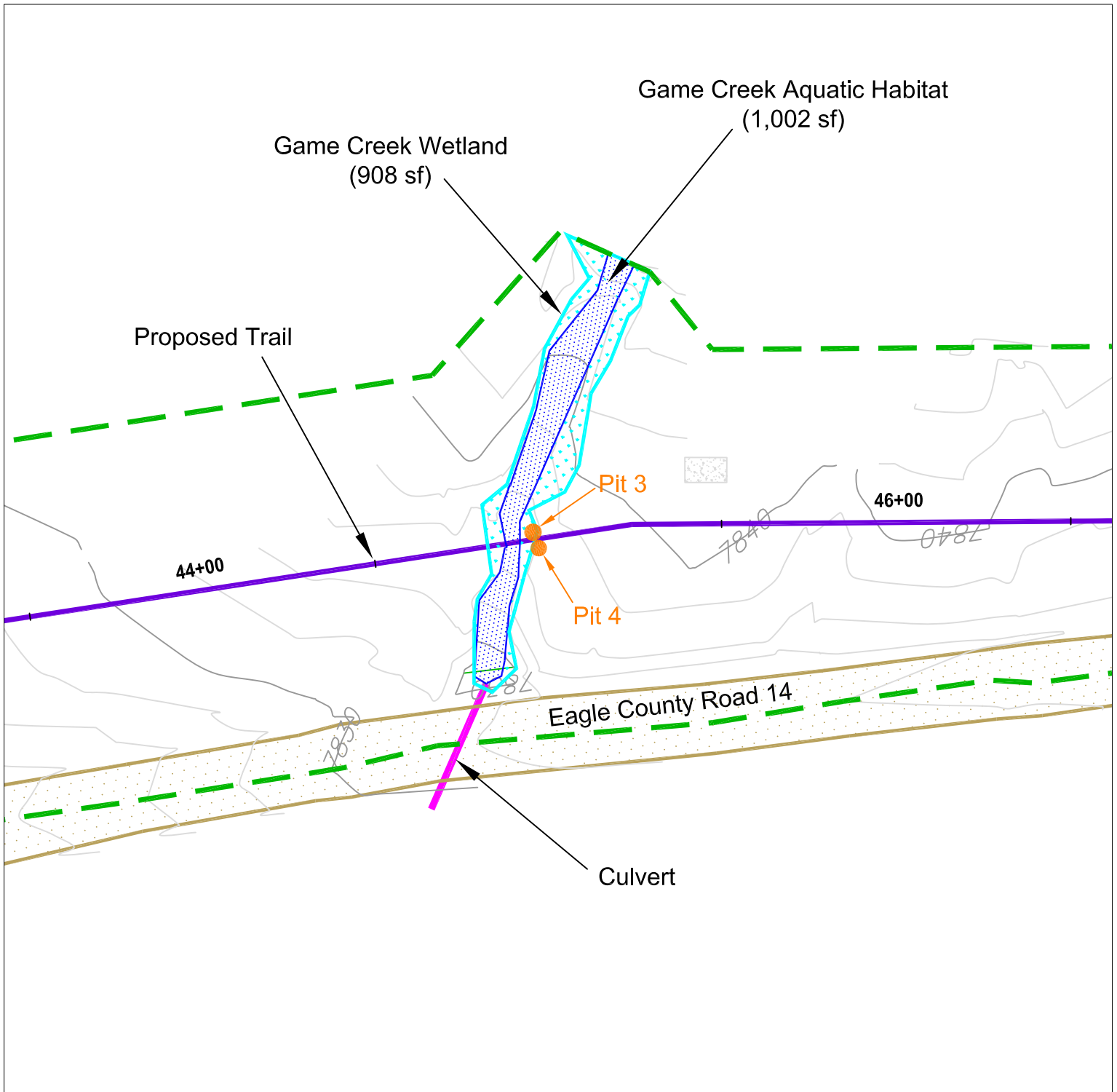
#### 4.1.4 Hydrology

Perennial stream flows in Game Creek create saturated soil conditions that facilitate wetland development on the banks and floodplain. In addition, seasonally high groundwater associated with the alluvial aquifer likely contributes to the wetland hydrology.

#### 4.1.5 Soils

Four soil pits were evaluated during the wetland delineation. Pits 1 and 2 are located in upland areas within the northern portion of the Minturn Trail project site. Pit 1 is in a poorly developed drainage swale that has hydrophytic vegetation, but lacks hydric soil and indicators of a wetland hydrology. Pit 2 is in another poorly developed swale through a stand of aspen (Photo 4). Pit 2 also lacked hydric soil and indicators of a wetland hydrology.

Pits 3 and 4 are paired pits located along Game Creek (Photo 9). Pit 3 is located on a small floodplain area on the south side of the channel. The hydric soil in Pit 3 had a redox dark surface, and was saturated below a depth of 11 inches on the date of the delineation. Pit 4 is located in the upland position adjacent to Game Creek. Pit 4 is approximately six inches higher in elevation than Pit 3. Pit 4 lacked hydric soil and indicators of a wetland hydrology.



**Legend:**

-  Wetlands
-  Aquatic Habitat
-  Pit 1 Soil Pits
-  Wetland Delineation Boundary
-  Proposed Trail



Date: January 2016  
 Contour Interval: 2 ft  
 Scale: 1 in = 40 ft

**Figure 3. Game Creek Wetland Detail  
 Minturn Trail Segment  
 ECO Trails Project**

## **5.0 Analysis of Jurisdictional Status**

Game Creek is a perennial tributary of the Eagle River, which flows into the Colorado River, an interstate water. Therefore, the Game Creek Wetland is jurisdictional.

**6.0 Photos**



**Photo 1.** Overview of the trail project area, view to the north along the east side of County Road 14. (10/26/15).



**Photo 2.** Overview of the trail project area, view to the south along the east side of County Road 14. (10/26/15).



**Photo 3.** The northern end of the Minturn trail segment will begin in a disturbed area just east of the railroad and the County Road 14 Bridge over the Eagle River. (10/26/15).



**Photo 4.** Proposed trail corridor adjacent to Pit 2, which did not meet the vegetation, soil, or hydrology criteria of the Corps manual. (10/26/15).



**Photo 5.** The orange stake marks the proposed trail centerline through the mountain shrub community east of County Road 14. (10/26/15).



**Photo 6.** Proposed trail alignment through the upland mountain shrub community. (10/26/15).



**Photo 7.** This section of the proposed trail would cross an area with a high cover of the noxious weed toadflax. (10/26/15).



**Photo 8.** Game Creek is a perennial tributary of the Eagle River. (10/26/15).



**Photo 9.** Paired soil pits 3 and 4 at the margin of the Game Creek Wetland. (10/26/15).



**Photo 10.** Reed canarygrass is the most abundant herbaceous species in the wetland understory. This is an aggressive, introduced grass. (10/26/15).

## 7.0 Tables

**TABLE 1**  
**Waters of the U.S. Summary**  
**ECO Trails Project**  
**Minturn Segment**

<u>Water of the U.S. (WUS)</u>	<u>Surveyed Area</u>	<u>Classification</u>
Game Creek Wetland	908 ft <sup>2</sup> (0.02 ac)	Perennial Stream
Game Creek Aquatic Habitat	1,002 ft <sup>2</sup> (0.02 ac)	Palustrine Forested
<b>GRAND TOTAL WUS</b>	<b>1,910 ft<sup>2</sup> (0.04 ac)</b>	

**TABLE 2**  
**Vascular Plant Species List**  
**ECO Trails Project**  
**Minturn Segment**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Family</u>	<u>Origin*</u>	<u>Wetland Status**</u>
<b>Trees</b>				
<i>Populus angustifolia</i>	Narrowleaf cottonwood	Salicaceae	N	FACW
<i>Populus balsamifera</i>	Balsam poplar	Salicaceae	N	FAC
<i>Populus tremuloides</i>	Aspen	Salicaceae	N	FACU
<b>Shrubs</b>				
<i>Alnus incana</i> <i>ssp. tenuifolia</i>	Thinleaf alder	Betulaceae	N	FACW
<i>Amelanchier alnifolia</i>	Serviceberry	Rosaceae	N	FACU
<i>Artemisia tridentata</i> <i>var. vaseyana</i>	Mountain big sagebrush	Asteraceae	N	NL
<i>Chrysothamnus parryi</i>	Parry's rabbitbrush	Asteraceae	N	NL
<i>Cornus sericea</i> <i>(C. stolonifera)</i>	Redosier dogwood	Cornaceae	N	FACW
<i>Crataegus rivularis</i>	Hawthorn	Rosaceae	N	FACW
<i>Distegia involucrata</i>	Bush honeysuckle	Caprifoliaceae	N	FAC
<i>Juniperus communis</i> <i>ssp. alpina</i>	Common juniper	Cupressaceae	N	UPL
<i>Prunus virginiana</i> <i>var. melanocarpa</i>	Choke cherry	Rosaceae	N	FACU
<i>Purshia tridentata</i>	Bitterbrush	Rosaceae	N	NL
<i>Ribes inerme</i>	Whitestem gooseberry	Grossulariaceae	N	FAC
<i>Rosa woodsii</i>	Woods' rose	Rosaceae	N	FACU
<i>Salix drummondiana</i>	Drummond willow	Salicaceae	N	FACW
<i>Salix monticola</i>	Mountain willow	Salicaceae	N	OBL
<i>Symphoricarpos</i> <i>rotundifolius</i>	Snowberry	Caprifoliaceae	N	NL
<b>Perennial Graminoids</b>				
<i>Agrostis gigantea</i> <i>(A. alba)</i>	Redtop	Poaceae	I	FAC
<i>Bromus inermis</i>	Smooth brome	Poaceae	I	FAC
<i>Dactylis glomerata</i>	Orchard grass	Poaceae	I	FACU
<i>Distichlis spicata</i>	Saltgrass	Poaceae	N	FACW
<i>Elymus cinereus</i>	Basin wild rye	Poaceae	I	FAC
<i>Elymus trachycaulus</i>	Slender wheatgrass	Poaceae	N	FAC
<i>Festuca ovina</i>	Sheep fescue	Poaceae	I	UPL
<i>Festuca rubra</i>	Red fescue	Poaceae	N	FAC
<i>Oryzopsis hymenoides</i>	Indian ricegrass	Poaceae	N	UPL
<i>Phalaris arundinacea</i>	Reed Canarygrass	Poaceae	I	FACW
<i>Phleum pratense</i>	Timothy	Poaceae	I	FAC
<i>Poa compressa</i>	Canada bluegrass	Poaceae	I	FACU

**TABLE 2**  
**Vascular Plant Species List**  
**ECO Trails Project**  
**Minturn Segment**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Family</u>	<u>Origin*</u>	<u>Wetland Status**</u>
<b>Perennial Forbs</b>				
<i>Achillea millefolium</i>	Yarrow	Asteraceae	N	FACU
<i>Aster foliaceus</i>	Leafy bracted aster	Asteraceae	N	FACU
<i>Cirsium arvense</i>	Canada thistle	Asteraceae	I+	FAC
<i>Fragaria virginiana</i>	Mountain strawberry	Rosaceae	N	FACU
<i>Geranium richardsonii</i>	Richardson's Geranium	Geraniaceae	N	FAC
<i>Linaria vulgaris</i>	Toadflax	Scrophulariaceae	I+	NL
<i>Medicago lupulina</i>	Black medic	Fabaceae	I	FACU
<i>Oligosporus dracunculus</i>	Tarragon	Asteraceae	N	NL
<i>Penstemon strictus</i>	Rocky Mountain penstemon	Scrophulariaceae	N	NL
<i>Potentilla hippiana</i>	Woolly cinquefoil	Rosaceae	N	NL
<i>Potentilla pulcherrima</i>	Beautiful cinquefoil	Rosaceae	N	FAC
<i>Taraxacum officinale</i>	Dandelion	Asteraceae	I	FACU
<i>Vicia americana</i>	American vetch	Fabaceae	N	FAC
<b>Annual/Biennial Forbs</b>				
<i>Carduus acanthoides</i>	Plumeless thistle	Asteraceae	I+	NL
<i>Carduus nutans ssp. macrolepis</i>	Musk thistle	Asteraceae	I+	UPL
<i>Cynoglossum officinale</i>	Houndstongue	Boraginaceae	I+	FACU
<i>Lactuca serriola</i>	Prickly lettuce	Asteraceae	I	FACU
<i>Melilotus officinalis</i>	Yellow sweet clover	Fabaceae	I	FACU
<i>Tragopogon dubius</i>	Salsify	Asteraceae	I	NL
<i>Verbascum thapsus</i>	Great mullein	Scrophulariaceae	I+	FACU

\* Origin

N = Native  
I = Introduced  
I+ = Colorado State Noxious Weed

\*\* Wetland Status

OBL = Obligate Wetland  
FACW = Facultative Wetland  
FAC = Facultative  
FACU = Facultative Upland  
UPL = Obligate Upland  
NO/NL = No Status in this Region

## 8.0 References

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- Weber, W. A. and R. C. Whitmann. 2012. Colorado Flora: Western Slope, Fourth edition. University Press of Colorado. Boulder, Colorado.
- Weber, W.A. & R.C. Wittmann, 1992. Catalog of the Colorado Flora: a Biodiversity Baseline. University Press of Colorado. Niwot, Colorado. Including most recent addenda available from CU Herbarium (COLO), Boulder, Colorado.

## Appendix A. Field Data Forms

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Minturn Trail City/County: Eagle Sampling Date: 10/26/15  
 Applicant/Owner: Eco Trails/Town of Minturn State: CO Sampling Point: Pit 1  
 Investigator(s): Houston & Buscher Section, Township, Range: Sec. 22 T5S R81W  
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): \_\_\_\_\_  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____ No <u>X</u>	
Wetland Hydrology Present?	Yes _____ No <u>X</u>	
Remarks: <u>bottom of faint drainage swale below steep slope - lower area near road &amp; trail alignment</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>N/A</u>			
2. _____			
3. _____			
4. _____			
= Total Cover			
Sapling/Shrub Stratum (Plot size: <u>10x10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Chrysothamnus parryi</u>	<u>5</u>	<u>Y</u>	<u>NL</u>
2. _____			
3. _____			
4. _____			
5. _____			
= Total Cover			
Herb Stratum (Plot size: <u>10x10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Festuca rubra coll.</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
2. <u>Cirsium arvense</u>	<u>2</u>	<u>N</u>	<u>FAC</u>
3. <u>Melilotus officinalis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
4. <u>Phleum pratense</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
5. <u>Bromus inermis</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>
6. <u>Dactylis glomerata</u>	<u>2</u>	<u>N</u>	<u>FACU</u>
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
= Total Cover			
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
= Total Cover			
% Bare Ground in Herb Stratum <u>41</u>			
Remarks: _____			

### Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 67% (A/B)

### Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____
Prevalence Index = B/A = _____	

### Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation \_\_\_\_\_

2 - Dominance Test is >50% \_\_\_\_\_

3 - Prevalence Index is ≤3.0<sup>1</sup> \_\_\_\_\_

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) \_\_\_\_\_

5 - Wetland Non-Vascular Plants<sup>1</sup> \_\_\_\_\_

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain) \_\_\_\_\_

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

### Hydrophytic Vegetation Present?

Yes X No \_\_\_\_\_

## SOIL

Minkun trail

10/26/15

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-4	10YR 3/3	60	7.5YR 4/4	41	C	M	gcl cl	
	10YR 3/2	40						
4-12	10YR 3/2	100					gcl cl	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1) (except MLRA 1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☐ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

Remarks:

At bottom of faint drainage swale.

## HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☐ Saturation (A3)  
☐ Water Marks (B1)  
☐ Sediment Deposits (B2)  
☐ Drift Deposits (B3)  
☐ Algal Mat or Crust (B4)  
☐ Iron Deposits (B5)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Sparsely Vegetated Concave Surface (B8)  
☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  
☐ Salt Crust (B11)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Stunted or Stressed Plants (D1) (LRR A)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Geomorphic Position (D2)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)  
☐ Raised Ant Mounds (D6) (LRR A)  
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Minturn Trail City/County: Minturn/Eagle Sampling Date: 10/26/15  
 Applicant/Owner: Eco Trails / Town of Minturn State: CO Sampling Point: Pit 2  
 Investigator(s): Houston & Buscher Section, Township, Range: Sec. 22 T55 R81 W  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): concave Slope (%):       
 Subregion (LRR):      Lat:      Long:      Datum:       
 Soil Map Unit Name:      NWI classification:     

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>    </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u>    </u> No <u>X</u>
Hydric Soil Present?	Yes <u>    </u> No <u>X</u>	
Wetland Hydrology Present?	Yes <u>    </u> No <u>X</u>	
Remarks: <u>in swale thru aspen near road &amp; trail alignment</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>10x10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B) <b>Prevalence Index worksheet:</b> Total % Cover of: <u>    </u> Multiply by: <u>    </u> OBL species <u>    </u> x 1 = <u>    </u> FACW species <u>    </u> x 2 = <u>    </u> FAC species <u>    </u> x 3 = <u>    </u> FACU species <u>    </u> x 4 = <u>    </u> UPL species <u>    </u> x 5 = <u>    </u> Column Totals: <u>    </u> (A) <u>    </u> (B) Prevalence Index = B/A = <u>    </u> <b>Hydrophytic Vegetation Indicators:</b> <u>    </u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Populus tremuloides</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
<u>20</u> = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>10x10'</u>)</b>				
1. <u>Amelanchier alnifolia</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Chrysothamnus parryi</u>	<u>5</u>	<u>N</u>	<u>NL</u>	
3. <u>Symphoricarpos rotundifolius</u>	<u>5</u>	<u>N</u>	<u>NL</u>	
4. <u>Ribes inerme</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
5. <u>Prunus virginiana</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Rosa woodsii</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
<u>55</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>10x10'</u>)</b>				
1. <u>Bromus inermis</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Potentilla pulcherrima</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
3. <u>Potentilla xhippiana</u>	<u>5</u>	<u>N</u>	<u>NL</u>	
4. <u>Fragaria virginiana</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	
5. <u>Poa compressa</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
6. <u>Geranium richardsonii</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
7. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
8. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
9. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
10. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
11. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
<u>95</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>    </u>)</b>				
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
<u>    </u> = Total Cover				
% Bare Ground in Herb Stratum <u>5</u>				
Remarks: <u>    </u>				

## SOIL

Minturn trail

10/26/15

Sampling Point:

2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-13	10YR2/1	100					L	
13-16	10YR2/2	100					L	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Histosol (A1)      ☐ Sandy Redox (S5)  
☐ Histic Epipedon (A2)      ☐ Stripped Matrix (S6)  
☐ Black Histic (A3)      ☐ Loamy Mucky Mineral (F1) (except MLRA 1)  
☐ Hydrogen Sulfide (A4)      ☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Below Dark Surface (A11)      ☐ Depleted Matrix (F3)  
☐ Thick Dark Surface (A12)      ☐ Redox Dark Surface (F6)  
☐ Sandy Mucky Mineral (S1)      ☐ Depleted Dark Surface (F7)  
☐ Sandy Gleyed Matrix (S4)      ☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

Remarks:

In aspen on alluvial fan, in faint swale

## HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)      ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  
☐ High Water Table (A2)      ☐ Salt Crust (B11)  
☐ Saturation (A3)      ☐ Aquatic Invertebrates (B13)  
☐ Water Marks (B1)      ☐ Hydrogen Sulfide Odor (C1)  
☐ Sediment Deposits (B2)      ☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Drift Deposits (B3)      ☐ Presence of Reduced Iron (C4)  
☐ Algal Mat or Crust (B4)      ☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Iron Deposits (B5)      ☐ Stunted or Stressed Plants (D1) (LRR A)  
☐ Surface Soil Cracks (B6)      ☐ Other (Explain in Remarks)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Geomorphic Position (D2)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)  
☐ Raised Ant Mounds (D6) (LRR A)  
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_Water Table Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_Saturation Present? Yes \_\_\_\_\_ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Minturn Trail City/County: Minturn/Eagle Sampling Date: 10/26/15  
 Applicant/Owner: ECO Trails/Town of Minturn State: CO Sampling Point: Pit 3  
 Investigator(s): Houston & Buscher Section, Township, Range: Sec. 26 T5 S12 R1W  
 Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): (C) Slope (%):       
 Subregion (LRR):      Lat:      Long:      Datum:       
 Soil Map Unit Name:      NWI classification:     

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes X No       
 Are Vegetation     , Soil     , or Hydrology      naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u>    </u>
Hydric Soil Present?	Yes <u>X</u>	No <u>    </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u>    </u>			
Remarks: <u>Game creek - sm. floodplain section</u>					

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>10x10'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Populus angustifolia</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	Prevalence Index worksheet:
50 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>10x10'</u> )				Total % Cover of: <u>    </u> Multiply by: <u>    </u>
1. <u>Distegia involucrata</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	OBL species <u>    </u> x 1 = <u>    </u>
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	FACW species <u>    </u> x 2 = <u>    </u>
3. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	FAC species <u>    </u> x 3 = <u>    </u>
4. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	FACU species <u>    </u> x 4 = <u>    </u>
5. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	UPL species <u>    </u> x 5 = <u>    </u>
15 = Total Cover				Column Totals: <u>    </u> (A) <u>    </u> (B)
Herb Stratum (Plot size: <u>10x12'</u> )				Prevalence Index = B/A = <u>    </u>
1. <u>Phalaris arundinacea</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation <u>    </u> 2 - Dominance Test is >50% <u>    </u> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <u>    </u> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> 5 - Wetland Non-Vascular Plants <sup>1</sup> <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Agrostis alba</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
3. <u>Dactylis glomerata</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
4. <u>cf. aster poliflorus</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
5. <u>Poa compressa</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
6. <u>Bromus inermis</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
7. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
8. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
9. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
10. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
11. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
73 = Total Cover				
Woody Vine Stratum (Plot size: <u>    </u> )				Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u>
1. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
2. <u>    </u>	<u>    </u>	<u>    </u>	<u>    </u>	
% Bare Ground in Herb Stratum <u>27</u> = Total Cover				
Remarks: <u>Pit is right on WL edge - narrow strip next to Channel.</u>				

## SOIL

Mintum trail 10/26/15

Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	12YR2/1	100	—	—	—	—	very silty	
6-10	10YR2/1	100	—	—	—	—	very silty	
10-12	10YR2/1	100	7.5YR4/4	2	C	M	very silty	
12"	large cbl							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- ☐ Histosol (A1)  
☐ Histic Epipedon (A2)  
☐ Black Histic (A3)  
☐ Hydrogen Sulfide (A4)  
☐ Depleted Below Dark Surface (A11)  
☐ Thick Dark Surface (A12)  
☐ Sandy Mucky Mineral (S1)  
☐ Sandy Gleyed Matrix (S4)  
☐ Sandy Redox (S5)  
☐ Stripped Matrix (S6)  
☐ Loamy Mucky Mineral (F1) (except MLRA 1)  
☐ Loamy Gleyed Matrix (F2)  
☐ Depleted Matrix (F3)  
☒ Redox Dark Surface (F6)  
☐ Depleted Dark Surface (F7)  
☐ Redox Depressions (F8)

- ☐ 2 cm Muck (A10)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

Remarks:

on narrow floodplain of creek.

## HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)  
☐ High Water Table (A2)  
☒ Saturation (A3)  
☐ Water Marks (B1)  
☐ Sediment Deposits (B2)  
☐ Drift Deposits (B3)  
☐ Algal Mat or Crust (B4)  
☐ Iron Deposits (B5)  
☐ Surface Soil Cracks (B6)  
☐ Inundation Visible on Aerial Imagery (B7)  
☐ Sparsely Vegetated Concave Surface (B8)  
☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)  
☐ Salt Crust (B11)  
☐ Aquatic Invertebrates (B13)  
☐ Hydrogen Sulfide Odor (C1)  
☐ Oxidized Rhizospheres along Living Roots (C3)  
☐ Presence of Reduced Iron (C4)  
☐ Recent Iron Reduction in Tilled Soils (C6)  
☐ Stunted or Stressed Plants (D1) (LRR A)  
☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)  
☐ Drainage Patterns (B10)  
☐ Dry-Season Water Table (C2)  
☐ Saturation Visible on Aerial Imagery (C9)  
☐ Geomorphic Position (D2)  
☐ Shallow Aquitard (D3)  
☐ FAC-Neutral Test (D5)  
☐ Raised Ant Mounds (D6) (LRR A)  
☐ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_Saturation Present? Yes ☒ No ☐ Depth (inches): 11"Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Minturn Trail City/County: Minturn/Eagle Sampling Date: 10/26/15  
 Applicant/Owner: ECO Trails/Town of Minturn State: CO Sampling Point: Pt 4  
 Investigator(s): Houston + Buscher Section, Township, Range: Sec. 26 T5 S R81W  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): \_\_\_\_\_  
 Subregion (LRR): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	
Remarks: <u>Game Creek – Paired Pit w/ #3</u>		

## VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>10x10</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. <u>Populus angustifolia</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<b>Sapling/Shrub Stratum (Plot size: <u>10x10'</u>)</b> 1. <u>Distegia involucreta</u> <u>5</u> <u>Y</u> <u>FAC</u> 2. _____ 3. _____ 4. _____ 5. _____ <u>5</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation _____ 2 - Dominance Test is >50% _____ 3 - Prevalence Index is ≤3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) _____ 5 - Wetland Non-Vascular Plants <sup>1</sup> _____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Herb Stratum (Plot size: <u>10x10'</u>)</b> 1. <u>Bromus inermis</u> <u>40</u> <u>Y</u> <u>FAC</u> 2. <u>Cirsium arvense</u> <u>10</u> <u>N</u> <u>FAC</u> 3. <u>Poa compressa</u> <u>10</u> <u>N</u> <u>FACU</u> 4. <u>Phalaris arundinacea</u> <u>20</u> <u>Y</u> <u>FACW</u> 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ <u>80</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
<b>% Bare Ground in Herb Stratum</b> <u>20</u>				
Remarks: _____				

Mistaken trail

4

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### Indicators for Problematic Hydric Soils<sup>3</sup>:

☐ 2 cm Muck (A10)  
☐ Red Parent Material (TF2)  
☐ Very Shallow Dark Surface (TF12)  
☐ Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No 1

Paired pit to pit 3, and about 1' above.

### Wetland Hydrology Indicators:

**Secondary Indicators (2 or more required)**

- ☐ Water-Stained Leaves (B9) (**MLRA 1, 2, 4A, and 4B**)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)
- ☐ Raised Ant Mounds (D6) (**LRR A**)
- ☐ Frost-Heave Hummocks (D7)

Surface Water Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Water Table Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_

Saturation Present? Yes ☐ No ☒ Depth (inches): \_\_\_\_\_  
(includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No ✓

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
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