Pinyon Environmental, Inc.
Corporate Headquarters
3222 South Vance Street, Suite 200, Lakewood, CO 80227
T: 303.980.5200 F: 303.980.0089
www.pinyon-env.com

December 3, 2021

Wetland Analysis Report

18735 Brown Road Project
El Paso County, Colorado

Prepared for:
Chris Boyd
6238 Gilmer Way
Westerville, Ohio 43081

Pinyon Project No.:
1/21-149601.BIO002

Pinyon Environmental, Inc.
Corporate Headquarters
3222 South Vance Street, Suite 200, Lakewood, CO 80227
T: 303.980.5200 F: 303.980.0089
www.pinyon-env.com

December 3, 2021

Wetland Analysis Report

18735 Brown Road Project
El Paso County, Colorado

Prepared for:
Chris Boyd
6238 Gilmer Way
Westerville, Ohio 43081

Prepared by:

Jeff Henderson
Biologist

Reviewed by:

Brian Partington
Principal

Table of Contents

Tables

Figures

Appendices

1. Introduction

Chris Boyd has contracted Pinyon Environmental, Inc. (Pinyon), to provide an analysis of wetlands and waters of the United States (WOTUS) for the property located at 18735 Brown Road in El Paso County, Colorado. Pinyon understands that Mr. Boyd is planning to subdivide the property. El Paso Country requires a Minor Subdivision request, and a Wetland Analysis Report (report) is needed to support this request. This report details the methodology and results of Pinyon's wetlands and waters analysis.

1.1 Project Location

The study area used for this assessment consisted of the 35-acre parcel located at 18735 Brown Road in El Paso County, Colorado. The project location is shown in Figure 1 and described in Table 1-1, below.

Table 1-1. Summary of Project Location Information

Information	Details
County	El Paso
US Geological Survey 7.5-Minute Quadrangle	Black Forest (USGS, 2019)
Section, Township, and Range (6th Principal Meridian)	Section 7, Township 11 South, Range 65 West
Elevation of Project (feet above mean sea level)	7,442 (at approximate center)
Location of Project in Decimal Degrees (WGS84)	39.101858°, -104.717444°

2. Methods

Pinyon biologist Jeff Henderson visited the site on November 16, 2021, to delineate waters and wetlands within the study area. While in the field, data were recorded using a tablet-based Collector for ArcGIS paired with a Trimble R1 antenna to obtain sub-meter accuracy. The data were downloaded and mapped in ArcGIS mapping software. General habitat conditions were noted in upland and/or riparian areas, as well as in waters and wetlands. Photos were taken while in the field (Appendix A). The weather during the site visit was cloudy, and approximately 60° Fahrenheit.

2.1 Survey Parameters

Wetlands were delineated in accordance with the 1987 US Army Corps of Engineers (USACE) Wetland Delineation Manual and the 2010 *USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (Environmental Laboratory, 1987; USACE, 2010). The boundaries of the ordinary high-water mark (OHWM) were identified in accordance with the 2014 USACE *A Guide to Ordinary High Water Mark Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States* (USACE, 2014). Sampling points (SP) were placed in representative wetland and upland locations, and the data were recorded on wetland determination data forms (Figure 2; Appendix B).

Vegetation was identified and documented within the strata-specific sampling radii recommended by the USACE (30 feet for trees, 15 feet for shrubs, 5 feet for herbs, and 15 feet for woody vines). Additional plant species located outside of the sampling point, but within the sampled plant community, were noted as needed to better describe the nearby vegetation. Wetland indicator status for plant species was referenced using the "National Wetland Plant List Final Ratings" (Lichvar et al., 2018). Species were classified as obligate wetland species (OBL), facultative wetland species (FACW), facultative species (FAC), facultative upland species (FACU), or upland species (UPL). Plant species classified as FAC, FACW, or OBL were considered hydrophytic plants, and are wetland indicators.

Soil pits were hand-excavated within, and adjacent to, potential wetlands to verify indicators of hydric soils. Per the USACE Regional Supplement, wetland soil indicators may include presence of color streaking (mottling), gleying (greyish coloration), reducing conditions, hydrogen sulfide odor, high organic content and organic matter, and streaking in the surface layer of sandy soils (USACE, 2010).

Wetland hydrology indicators were also noted at the sampling points. Wetland hydrology indicators may include topographic position, presence of standing water and/or saturated soil, profile condition, drainage patterns, water marks, sediment deposits, and/or oxidized root channels in the upper 20 inches of the soil profile (USACE, 2010).

3. Existing Conditions

One drainage (Non-Wetland Water 1) and three wetlands (Wetland 1 complex) are located within the study area (Figure 2, Appendix A). There is evidence of human alteration in the landscape (e.g., evidence of earthwork, changes to the drainage, nearby development). Therefore, some of the natural vegetation, soils, and hydrology have likely been altered by filling, grading, and improvement activities in the past. The following sections summarize the current conditions of the study area.

3.1 Upland and Riparian Habitat

The study area is an undeveloped parcel, which consisted of shortgrass prairie habitat and rangeland areas. Dominant vegetation included common yarrow (*Achillea millefolium*), crested wheatgrass (*Agropyron cristatum*), kochia (*Bassia scoparia*), little bluestem (*Schizachyrium scoparium*), smooth brome (*Bromus inermis*), and western wheatgrass (*Pascopyrum smithii*) (Appendix A). In addition, the noxious weeds Canada thistle (*Cirsium arvense*), downy brome (*Bromus tectorum*), common mullein (*Verbascum thapsus*), and musk thistle (*Carduus nutans*) were distributed across the study area.

3.2 Soils

There were three soil types mapped within the study area (USDA, 2021):

- *Brussett loam, 3 to 5 percent slopes.* This soil type is classified as well drained with low runoff and is commonly found within hills and sloped areas. Parent materials are eolian deposits.

- *Peyton – Pring complex, 8 to 15 percent slopes.* This soil type is classified as well drained with medium runoff and is commonly found within hills and sloped areas. Parent materials are arkosic alluvium derived from sedimentary rock and/or arkosic residuum weathered from sedimentary rock.

- *Peyton sandy loam, 5 to 9 percent slopes.* This soil type is classified as well drained with medium runoff and is commonly found within hills and sloped areas. Parent materials are arkosic alluvium derived from sedimentary rock and/or arkosic residuum weathered from sedimentary rock.

3.3 Non-wetland Waters

An OHWM was mapped for Non-Wetland Water 1 located in the south-central section of the study area (Figure 2, Appendix A). This drainage was unnamed (per US Geological Survey [USGS, 2020] maps) and was identified by its hydrogeomorphic features. The main source of hydrology for Non-Wetland Water 1 is likely runoff from the adjacent landscape. During the time of the site visit there was no water; however, based on the topography of the landscape, flow (when present) is assumed to be south to north. Non-Wetland Water 1 extends into the Wetland 1 complex area which drains west to east into Frankton Parker FPE-6 Reservoir (reservoir) (Figure 2). This reservoir connects to East Cherry Creek outside of the study area.

3.4 Wetlands

The Wetland 1 complex consisted of three wetlands, Wetland 1a (WL-1a), Wetland 1b (WL-1b), and Wetland 1c (WL-1c) (Figure 2, Appendix A). These wetlands include palustrine emergent (PEM) wetlands. A PEM wetland is a type of wetland dominated by non-woody vegetation (e.g., grasses, sedges) with less than 30 percent cover of either shrubs or trees (Cowardin et al., 1979). In general, these wetlands were dominated

by Baltic rush (*Juncus balticus*), cattail (*Typha sp.*), curly dock (*Rumex crispus*), and reed canary grass (*Phalaris arundinacea*). SP-1 was located within WL-1a (Figure 2, Appendix A, Appendix B).

4. Conclusions, Recommendations, and Limitations

Non-wetland waters and wetlands were mapped within the study area. These features may have a potential downstream connection to East Cherry Creek. Impacts to these features may require Clean Water Act Section 404 permitting through the USACE. As no ground disturbance is currently planned, no Section 404 permitting or mitigation is currently required. Pinyon recommends that development plans avoid these drainages and associated wetlands. Should impacts be unavoidable, it may be necessary to obtain authorization from the USACE.

This report was prepared by Pinyon, at the request of and for the sole benefit of Chris Boyd, or any entity controlling, controlled by, or under common control with Chris Boyd. The information offered in this report is based on the data obtained from a limited number of samples, within a prescribed study area as described in the text. Soil, hydrologic, vegetation, biological and ecological conditions typically vary even over short distances, by season, by elevation, and by meteorological conditions. Thus, the nature and extent of variations outside this biological investigation may not become evident except through further investigation. It is possible that ecological conditions may change from those observed, particularly over time.

5. References

Cowardin, L.M., V. Carter V., F.C. Golet, E.T. LaRoe, 1979. Classification of Wetlands and Deepwater Habitats of the United States. U.S. Fish and Wildlife Service Report No. FWS/OBS/-79/31.Washington, D.C. Environmental Laboratory, 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-7-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Environmental Laboratory, 1987. "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-7-1, Environmental Laboratory, U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin, 2018. *The National Wetland Plant List: 2018 wetland ratings.* Phytoneuron 2016-30: 1-17. Published 2018.

USACE, 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-3. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

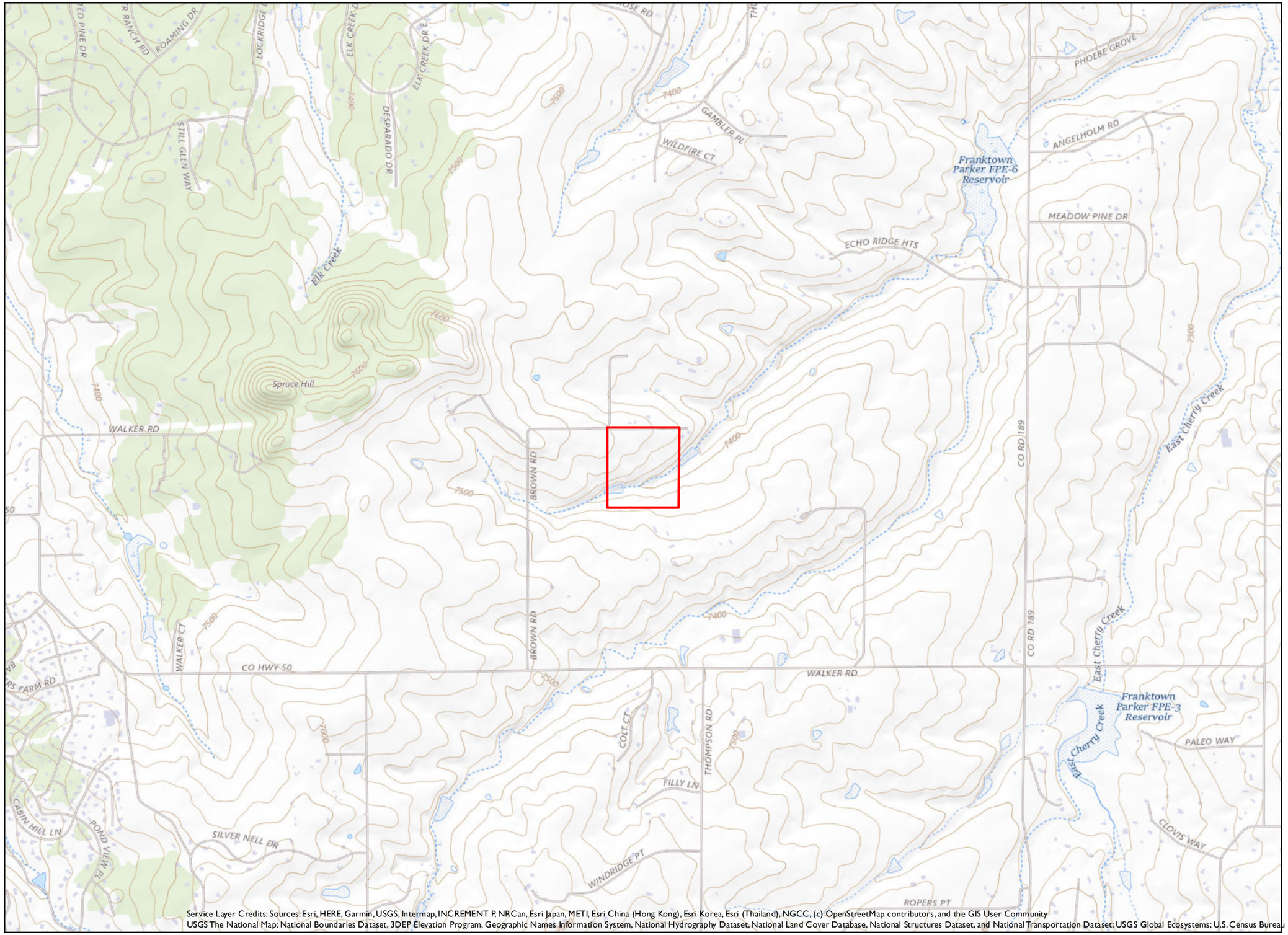
USACE, 2014. *A Guide to Ordinary High-Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States*. Ed. M. K. Mersel and R. W. Lichvar. ERDC/CRREL TR-14-13. Vicksburg, MS: United States Army Engineer Research and Development Center.

USDA, 2021. Web Soil Survey. Last Modified: July 31, 2019. Available online at: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm. Accessed November 2021.

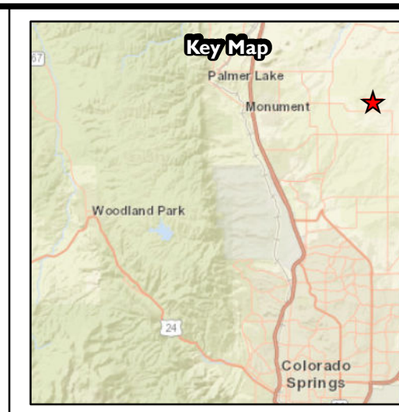
USGS, 2019. "7.5 Minute Topographic Map, Black Forest, Colorado," U.S. Geological Survey, 2019.

USGS, 2020. "National Hydrography Dataset." Updated December 5, 2020. Available at: https://www.usgs.gov/core-science- systems/ngp/national-hydrography.

Figures



Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community
USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau



Legend

Study Area

Map Sources:
U.S. Geological Survey 7.5' Quadrangle
Black Forest, Colorado 2019

0 1,000 2,000 Feet

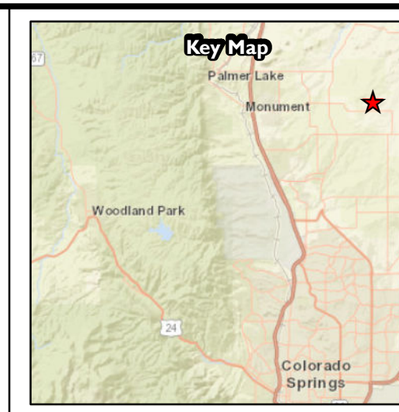
Pinyon Environmental, Inc.

PROJECT LOCATION

18735 Brown Road
El Paso County, Colorado

Site Location: Section 7, Township 11 South, Range 65 West, 6th Principal Meridian	Drawn By: PJW	Figure: 1
Pinyon Project Number: 1/21-1496.01	Reviewed By: JGH	Date: 11/19/2021

Document Path: Z:\PROJECTS\2021\121149601 18735 Brown Rd, Colorado Springs, CO, 80908\Figures\ArcMap\MXDs\Wetland Analysis Report\BIO01_ProjectLocation.mxd



Legend

- Study Area (35.88 acres)
- Sampling Point
- Wetlands (1.49 acres)
- Non-Wetland Waters (0.06 acre)
- Unnamed Drainageways
- Flow Direction

Note:
Non-wetland waters are defined as unvegetated areas that fall within the ordinary high water mark.

Wetlands and non-wetland waters were field delineated per U.S. Army Corps of Engineers standards on November 16, 2021.

N

0 150 300 Feet

Pinyon Environmental, Inc.

BIOLOGICAL RESOURCES

18735 Brown Road
El Paso County, Colorado

Site Location: Section 7, Township 11 South, Range 65 West, 6th Principal Meridian	Drawn By: PJW	Figure: 2
Pinyon Project Number: 1/21-1496.01	Reviewed By: JGH	Date: 12/1/2021

Document Path: \\192.168.2.10\Company2\PROJECTS\2021\121149601 18735 Brown Rd, Colorado Springs, CO, 80908\Figures\ArcMap\MXDs\Wetland Analysis Report\BIO02_BiologicalResources.mxd

Appendix A Photographic Log

Photo 1. A view of the study area and upland vegetation. Photo facing south from the center of the study area.

Photo 2. A view of the study area and upland vegetation. Photo facing east from the southeast corner of the study area.

Photo 3. A view of Non-Wetland Water 1 in the south central section of the study area. Photo facing south.

Photo 4. A view of Sampling Point 1 (SP-1) within Wetland 1a (WL-1a). SP-1 was dominated by reed canary grass (*Phalaris arundinacea*).

Photo 5. A picture of the hydric soil sample from SP-1. Hydric soil indicator Depleted Matrix (F3) observed within soil sample.

Photo 6. A view of WL-1a from the earthen/riprap dike between WL-1a and Wetland 1 b (WL-1b). Photo facing west.

Photo 7. A view of WL-1b from the earthen/rip rap dike between WL-1a and WL-1b. Photo facing east.

Photo 8. A view of Wetland 1c (WL-1c) located in the eastern section of the study area. WL-1c was dominated by reed canary grass (*Phalaris arundinacea*). Photo facing west.

Appendix B Wetland Determination Data Forms

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

Project/Site: 18735 Brown Road Project City/County: Colorado Spings/El Paso County Sampling Date: 11-16-21

Applicant/Owner: Chris Boyd State: CO Sampling Point: SP-1

Investigator(s): JGH - Pinyon Environmental, Inc. Section, Township, Range: S7, T11 South, R65 West

Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0%

Subregion (LRR): Rocky Mountain Forests and Rangeland Lat: 39.101023 Long: -104.718499 Datum: WGS84

Soil Map Unit Name: Peyton-Pring complex, 8 to 15 percent slopes NWI classification: PABfh

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No 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 X	No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:
SP-1 is located in a depression area. An earthen/rip rap dike is located east of the wetland. SP-1 is a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 Ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Ft radius)			
1. N/A			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 Ft radius)			
1. Phalaris arundinacea	90	Y	FACW
2. Rumex crispus	2	N	FAC
3. Typha sp.	5	N	OBL
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	97% = Total Cover		
Woody Vine Stratum (Plot size: 15 Ft radius)			
1. N/A			
2.			
	_____ = Total Cover		

% Bare Ground in Herb Stratum 3%

Dominance Test worksheet:

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

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

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (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:

X 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:
SP-1 is dominated by Phalaris arundinacea. SP-1 passes Rapid Test for hydrophytic vegetation.

SOIL

Sampling Point: SP-1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-20	10 YR 5/2	60%	7.5 YR 5/8	40%	C	M	Loam	Redox present

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

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

___ 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)
X Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

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

[3]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** X **No** ____

Remarks:

Depleted Matrix (F3) indicator observed. SP-1 passes for hydric soil.

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)
X Geomorphic Position (D2)
___ Shallow Aquitard (D3)
X FAC-Neutral Test (D5)
___ Raised Ant Mounds (D6) (**LRR A**)
___ Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): _____

Water Table Present? Yes ____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** X **No** ____

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

Remarks:

Geomorphic Position (D2) and FAC-Nuetral Test (D5) indicators observed. SP-1 passes for wetland hydrolgy.

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

Project/Site: 18735 Brown Road Project City/County: Colorado Spings/El Paso County Sampling Date: 11-16-21

Applicant/Owner: Chris Boyd State: CO Sampling Point: SP-2

Investigator(s): JGH - Pinyon Environmetnal, Inc. Section, Township, Range: S7, T11 South, R65 West

Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): None Slope (%): 2%

Subregion (LRR): Rocky Mountain Forests and Rangeland Lat: 39.100832 Long: -104.718692 Datum: WGS84

Soil Map Unit Name: Peyton-Pring complex, 8 to 15 percent slopes NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation No, Soil No, or Hydrology No 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 _____	No X	**Is the Sampled Area within a Wetland?** **Yes** _____ **No** X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:
SP-2 is the upland pit associated with SP-1. SP-2 is located on a hillslope above the depression area. SP-2 is NOT a wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 Ft radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. N/A			
2.			
3.			
4.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 Ft radius)			
1. N/A			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 Ft radius)			
1. Bromus inermis	75	Y	UPL
2. Achillea millefolium	5	N	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80% = Total Cover		
Woody Vine Stratum (Plot size: 15 Ft radius)			
1. N/A			
2.			
	_____ = Total Cover		
% Bare Ground in Herb Stratum 20%			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:
OBL species	0	x 1 =
FACW species	0	x 2 = 0
FAC species	0	x 3 =
FACU species	5	x 4 = 20
UPL species	75	x 5 = 375
Column Totals:	80 (A)	395 (B)

Prevalence Index = B/A = 4.94

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ 5 - Wetland Non-Vascular Plants[1]

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** _____ **No** X

Remarks:
SP-2 is dominated by Bromus inermis. SP-2 does NOT pass Rapid, Dominance, or Prevalence Index Test for hydrophytic vegetation.

SOIL

Sampling Point: SP-2

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox %	Type[1]	Loc[2]	Texture	Remarks
0-20	10 YR 5/4	100%					Sandy loam	No redox present

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

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

___ 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)

Indicators for Problematic Hydric Soils[3]:

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

[3]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** X

Remarks:

No hydric soil indicators observed. SP-2 does NOT pass for hydric soil.

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 X Depth (inches): _____

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

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

Remarks:

No wetland hydrology indicators observed. SP-2 does NOT pass for wetland hydrology.