

**AQUATIC RESOURCE/
WETLAND DELINEATION REPORT**

**DESORMEAUX, JR.
JUNE 2022
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EXECUTIVE SUMMARY

The purpose of this report is to describe and document the aquatic resources/wetlands and other features located on the subject property as they relate to regulatory requirements under Section 404 of the Clean Water Act., as administered by the U.S. Army Corps of Engineers.

The wetland delineation was conducted during June of 2022, with detailed seasonal hydrologic examination and revisions in November and December 2022. Findings verified the presence of wetland indicators in multiple test pits and soil probe samples. Wetland indicators include the presence of hydrology, hydric soils, and hydrophytic vegetation.

Delineation methodology was conducted in accordance with the 1987 "U.S. Army Corps of Engineers Wetlands Delineation Manual" with updates according to the Western Mountains, Valleys & Coast Regional Supplement.

The wetland conditions of the overall subject property are atypical. Hydrologic functions have shifted over time as a result of long-term drought. Sources of hydrology into the subject wetland (SW) have also been altered by changes in the greater slope wetland complex. The identified wetlands are Palustrine scrub-shrub (PSS1B). The SW is a portion of a greater wetland complex connecting slope wetlands to the riparian corridor of the Blue River. Hydrology of the SW is driven by deep groundwater, annual precipitation, and shallow sheet flows in the richest core.

No Fen or fen-type wetlands are found in the subject wetlands.

The SW is located within the Upper Blue River watershed drainage area of the Upper Colorado River Region. HUC 1401002.

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ACRONYMS & ABBREVIATIONS

THAT MIGHT APPEAR IN THIS DOCUMENT

AC	ACREAGE /ACRES
AJD	APPROVED JURISDICTIONAL DETERMINATION
EPA	ENVIRONMENTAL PROTECTION AGENCY
FAC	FACULTATIVE WETLAND INDICATOR STATUS
FACU	FACULTATIVE-UPLAND WETLAND INDICATOR STATUS
FACW	FACULTATIVE-WET WETLAND INDICATOR STATUS
FEN	FEN WETLAND
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
JD	JURISDICTIONAL DETERMINATION
NRCS	NATURAL RESOURCES CONSERVATION SERVICE
NWI	NATIONAL WETLAND INVENTORY
NWPL	NATIONAL WETLAND PLANT LIST
OBL	OBLIGATE WETLAND INDICATOR STATUS
PFO	PALUSTRINE FORESTED
PSS	PALUSTRINE SCRUB-SHRUB
ROW	RIGHT-OF-WAY
RPW	RELATIVELY PERMANENT WATERWAY
SF	SQUARE FOOTAGE
SP	SUBJECT PROPERTY
SW	SUBJECT WETLAND
TNW	TRADITIONAL NAVIGABLE WATERWAY
UPL	UPLAND/UPLAND INCLUSION
USACE	U. S. ARMY CORPS OF ENGINEERS
USFWS	U. S. FISH AND WILDLIFE SERVICE
USGS	U.S. GEOLOGICAL SURVEY
WMVC	WESTERN MOUNTAINS, VALLEYS AND COAST REGIONAL SUPPLEMENT

CHAPTER 1 – INTRODUCTION

Applicant/property owner's/agent's name and contact information.

Ownership of Record: Douglas Urrata

Owner's Agent,

Address & Contact: Sean Bennett
Bennett Investment Properties
303.717.3718

Applicant,

Address & Contact: Thomas DeSormeaux, Jr.
6214 Pontchartrain Blvd
New Orleans, LA 70124
504.884.1353

Consulting,

Applicant's Agent: Virgil O. Best II, Principal
Best Ecological Design Group

Address & Contact: Post Office Box 2301-152
Silverthorne, Colorado 80498
970.389.7670
bestecological@outlook.com

Surveying: Range West, Inc

Address: Post Office Box 589
Silverthorne, Colorado 80498
970.468.6281

Subject Property: Lot 307 Leap Year Sub
6419 CO Hwy 9
Summit County, Colorado 80424

SUBJECT WETLAND

Conditions in the subject wetland complex are atypical and demonstrate a wide range of characteristics consistent with diminished hydrology over porous soils. Subject wetlands are Palustrine scrub-shrub, Palustrine forested, and Riverine.

The subject wetland complex is a portion of the greater slope wetland complex of the upper Blue River valley. Based on the ecological characteristics of the wetland complex and the surrounding topography, primary hydrology is supplied by deep groundwater, annual precipitation, and shallow sheet flows. Portions of the SW demonstrate patterns of vitality in the hydrophytic vegetation, and patterns of encroachment of non-wetland plant species that indicate diminished and seasonally altered wetland hydrology.

Factors that are known, those unknown, and assumptions based on observable indicators are discussed in the following pages.

See Map 1 for the locations of the subject wetland areas on the subject property.

The purpose of this report is to identify and describe aquatic & wetland resources and, to identify known possible sensitive plant, fish, wildlife species, and cultural/historic properties in the survey area. This report should serve to identify and outline resources for evaluation under the Clean Water Act Section 404 regulations and requirements as administered by The U.S. Army Corps of Engineers, and:

- Document the wetland boundary determination.

- Document and present the condition of the SW.

- Provide early indications of known sensitive species and historic/cultural properties on the subject property.

- Provide background information.

CHAPTER 2 – LOCATION

The Subject Property is located in the Town of Blue River, County of Summit, State of Colorado. 6419 CO Hwy 9. Located in Section 19, Township 7S, Range 77W. Latitude 39.4315° North. Longitude -106.0440° West.

Driving directions to the SP: From the intersection of I-70 & CO Hwy 9 in Frisco, exit southbound on Hwy 9. Continue through the town of Frisco and through the town of Breckenridge. Continue ~3.4 miles from the intersection of CO Hwy 9 and Boreas Pass Rd at the south edge of Breckenridge. The subject property is a vacant parcel on the right (western) side of the highway, between two developed parcels. (The subject property is ~1/10 mile north of Blue River Road, in the town of Blue River.)

CHAPTER 3 – METHODS

The wetland delineation was conducted during June of 2022, with detailed seasonal hydrologic examination and revisions in November and December 2022. Findings verified the presence of wetland indicators in multiple test pits and soil probe samples. Wetland indicators include the presence of hydrology, hydric soils, and hydrophytic vegetation. Delineation methodology was conducted in accordance with the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual, with updates according to the Western Mountains, Valleys & Coast Regional Supplement (2010).

Subject wetlands are Palustrine scrub-shrub with hydrophytic herbaceous, shrub, and tree strata dominants. The wetland boundary delineation is identified by a multiple flag series (W-1 through W-21, W-100 through W-104, W-200 through W-204, and S-1 through S-14). The Subject wetlands are fragmented remnants of a once greater slope wetland complex, contiguous to the historic river floodplain. Interior conditions of the wetland complex are varied in qualities. Multiple probe samples and soils test pits were utilized to identify hydric soil variations and the wetland boundary. See map 1 for the location of the subject wetlands.

The wetland boundary determinations were based on density and dominance of hydrophytic plant species and prevalence of moist or saturated hydrologic conditions as well as variations in the hydric soils.

Soils of the SP & SW were examined in multiple probe samples. Soil probe test depths varied around 12”, all samples reached gravelly C-horizon materials. Soil colors were determined according to Munsell soil color charts.

Hydrologic conditions were determined by the presence moisture in the soil samples. All wetland positive test samples demonstrated moist conditions at depth during the examination period. Additional probe samples utilized moisture redoximorphic soil indicators to verify wetland hydrology, or upland conditions.

CHAPTER 4 – EXISTING CONDITIONS

ECOLOGICAL SETTING

The SW is located at approximately 10,020’ elevation, positioned on the floodplain of the Upper Blue River drainage area, just upstream of the Blue River arm of Dillon reservoir.

Habitat of the surrounding area includes subalpine spruce-fir forest with mixed stands of Aspen, and broad wetlands in multiple sub-drainages. Palustrine scrub-shrub wetlands are prevalent on the slopes, in various sub-drainages, and on the floor of the Blue River valley.

Atypical conditions exist in the subject wetland resultant of past development disturbance and long-term drought. The subject wetland complex is a portion of the greater Blue River valley wetland complex. The Palustrine shrub slope wetland is diminishing on the edges and in the southern half; available hydrology is centered in the northern half the property along an ephemeral flowline, soil moisture in the periphery has been reduced due to the long-term drought conditions.

WETLAND COMPLEX - HISTORICAL DISTURBANCE

As introduced above, the hydrology of the slope wetland complex has been significantly disturbed/alterd by long-term degradation. The current delineation (2022) defines the wetland boundaries based on current conditions. The hydrologic regime of the forested slope above the subject wetland has been severely diminished due to long-term drought; surface, shallow root zone hydrophytic plant species are the most affected due to the porous soils dominating the soil column across most of the property. The richest zone, encompassing the ephemeral flowline and demonstrating deep Cryaquolls, supports hydrophytic plant species in all vegetative layers.

SUBJECT WETLAND – OVERVIEW

The subject wetland complex Palustrine Scrub-Shrub/PSS1B, with variable patch dominance demonstrating herbaceous dominance, scrub-shrub dominance (*Salix*), and large woody shrub dominance (*Salix & Alder*).

The SW demonstrates dominant hydrophytic plant species in the tree, shrub, and herbaceous layers. Hydrology of the subject complex is provided as capillary saturation from groundwater in the deep root zone for trees and woody shrubs. Direct precipitation supplies water for groundcover/herbaceous vegetation in areas of porous soils. Seasonal saturation and minor surface flows supply the rich Cryaquolls of the wetland core. The wetland edges are drying and dying, long-term.

Test pits demonstrated historic hydric soils; gravelly loam, sandy loam, sand/silt loam underlain by clayey gravelly substrate. Samples demonstrated redoximorphic features, in wetland areas. Non-wetland areas clearly demonstrated a lack of presence of hydrophytes, with the surface dominated by upland groundcover plant species, or bare ground & lack of vigor in the old hydrophytic shrubs.

The total area of the subject wetland equals 19,756.02 SF/0.45-acres.

SUBJECT WETLAND - VEGETATION

Vegetation of the SW is dominated by hydrophytic trees, shrubs, and herbs. The dominant characteristics of the subject wetland complex are defined by *Alnus* & mixed *Salix* species. The herbaceous layer is dominated by mixed hydrophytic plant species.

TABLE 1 - DOMINANT PLANT SPECIES OF THE SUBJECT WETLAND

Scientific Name	Common Name	Indicator Status
<i>Alnus incana</i>	Alder	FacW
<i>Betula glandulosa</i>	Bog Birch	OBL
<i>Carex aquatilis</i>	Leafy Tussock Sedge	OBL
<i>Carex nebrascensis</i>	Nebraska Sedge	OBL
<i>Mertensia ciliata</i>	Chiming Bells	FACW
<i>Picea pungens</i>	Colorado Blue Spruce	FAC
<i>Poa palustris</i>	Fowl Bluegrass	FAC
<i>Psychrophila leptosepala</i>	Marsh Marigold	OBL
<i>Salix drummondiana</i>	Drummond's willow	FACW
<i>Salix planifolia</i>	Plane leaf Willow	OBL

SUBJECT WETLAND - SOILS AND SUBSTRATE

Soils of the SW & SP are mapped by NRCS as Handran gravelly loam in the higher elevation, historic, floodplain terraces along the western property line, and Cumulic cryaquolls in the lower, current, floodplain terrace. Handran soils are verified on site; the lower floodplain terrace is dominated by unconsolidated sandy/gravelly alluvium, deposited in the floodplain during the time of a much different hydrologic regime.

Predominant soils of the SW demonstrate low chroma Munsell colors in the A/B-Horizons. C-Horizons in the SW demonstrated low chroma and redoximorphic features with moderate colors and contrast against the matrix.

SUBJECT WETLAND – HYDROLOGY

Hydrology in the SW is supplied by groundwater in the deep root zone of large woody species. The historic hydrologic regime of abundant perennial surface and subsurface flows has given way to snowpack and summer precipitation providing the primary hydrology in the areas dominated by porous soils. Minor surface stream flows of the unnamed ephemeral tributary and shallow groundwater sheet flows provide the primary hydrology all levels of hydrophytes in the core.

WETLAND/AQUATIC RESOURCE CLASSIFICATION

Wetlands of the SW are PSS1B.

NEARBY WETLANDS & AQUATIC RESOURCES

Wetlands of the greater wetland complex in the tributary drainage area are Palustrine scrub-shrub and Palustrine forested.

INTERSTATE OR FOREIGN COMMERCE

There is no observed or documented interstate or foreign commerce associated with the SW.

KNOWN SENSITIVE SPECIES

No known sensitive plant or animal species were found on the SP; none were observed in the SW during the course of the on-site investigation.

CULTURAL OR HISTORICAL PROPERTIES OR FEATURES

No cultural or historical properties or features were found or observed on the SP; none were observed in the SW during the course of the on-site investigation.

SUBJECT WETLAND/AQUATIC RESOURCE JURISDICTION

Surface flows are connected with the greater riparian complex of the Blue River, the SW is to be treated as jurisdictional by the USACE, unless an AJD is requested, and findings support non-jurisdictional status. An AJD is not being requested at this time. The subject wetlands are also under the jurisdiction of Summit County regulations

CHAPTER 5 – REFERENCES

Resources

U.S. Army Corps of Engineers, Wetland Delineation Manual (1987) &

Western Mountains, Valleys, and Coast Regional Supplement (2010)

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016.

The National Wetland Plant List: 2016 wetland ratings.

Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

U.S. Natural Resources Conservation Service, WSS Web Soil Survey of Summit County Area (2021)

Weber, W. A. and, R. C. Wittmann, Colorado Flora – Western Slope, 4th. (2012)

MAP 1 - WETLAND DELINEATION

MAP OF
BLUE RIVER ESTATES, INC.
11/5/62 AT REC. NO. 96304
COUNTY, COLORADO

