

Wetland Delineation and Habitat Assessment Report
252 Heavy Stone View - Creekside at Rockrimmon
USACE Action No. SPA-2021-00106



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- Appendix A Plan Sheets prepared by Drexell, Barrell & Co.
• GP1 - Preliminary Grading Plan (June 18, 2021)
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1.0 Introduction

Premier Homes, Inc. (Premier) (Applicant) is planning a residential development project on a 17.47-acre property (Site) located at 252 Heavy Stone View within the City of Colorado Springs (City) Creekside at Rockrimmon Filing No. 1 subdivision (Project). Premier is in the process of requesting City Planning Commission approval of the Project Development Plan. The property is currently owned by Pueblo Bank and Trust and Premier plans to purchase the property following approval of the Development Plan. Premier has contracted engineering services to Drexel, Barrell, & Co. Auckland Environmental Consulting (Auckland) (Agent) has been contracted by Premier to complete a wetland delineation and US Army Corps of Engineers (USACE) permitting. Contact information for the Applicant and Agent is provided on USACE Nationwide Permit (NWP) Pre-Construction Notification (PCN) application form (ENG FORM 6082). The USACE has assigned USACE Action No. SPA-2021-00106 to the Project.

The Site includes wetlands and open waters, most of which are presumed Waters of the US (WUS) under USACE jurisdiction. These resources and USACE permitting affect the project layout. The Development Plan approval process includes City review of the layout of all lots, preservation areas, and major infrastructure including roads, sidewalks, trails, and water quality features. Therefore, the City has requested that USACE coordination and permitting be completed to a point sufficient to avoid any later changes to the Site layout prior to Development Plan submittal and approval.

Coverage under USACE Nationwide Permit 29 for Residential Developments is expected. Thus, this report has been prepared to meet USACE pre-construction notification (PCN) requirements. This report documents the results of a wetland delineation, initial jurisdictional evaluation, and a habitat assessment for federally-listed species.

1.1 Site Location

The 17.47-acre Site is located in northwest Colorado Springs on the north side of South Rockrimmon Boulevard and 0.7 mile west of Interstate 25 (I-25) (Figures 1 and 2). The Site address is 252 Heavy Stone View, Colorado Springs, Colorado, 80919. The Site is located in Township 13 South, Range 67 West, on the east side of Section 13 and the west edge of Section 18. The approximate coordinates of the Site center are 38.918449° latitude and -104.83346° longitude (WGS 84 datum). Elevation ranges from 6,259 to 6,365 feet.

The Site is located in the Upper Arkansas subregion of the Arkansas River Basin (Hydrologic Unit Code [HUC] 11020003). The Site drain to North Rockrimmon Creek, located 60 feet east of the property line. North Rockrimmon Creek flows into Monument Creek approximately 0.8 miles southeast of the Site.

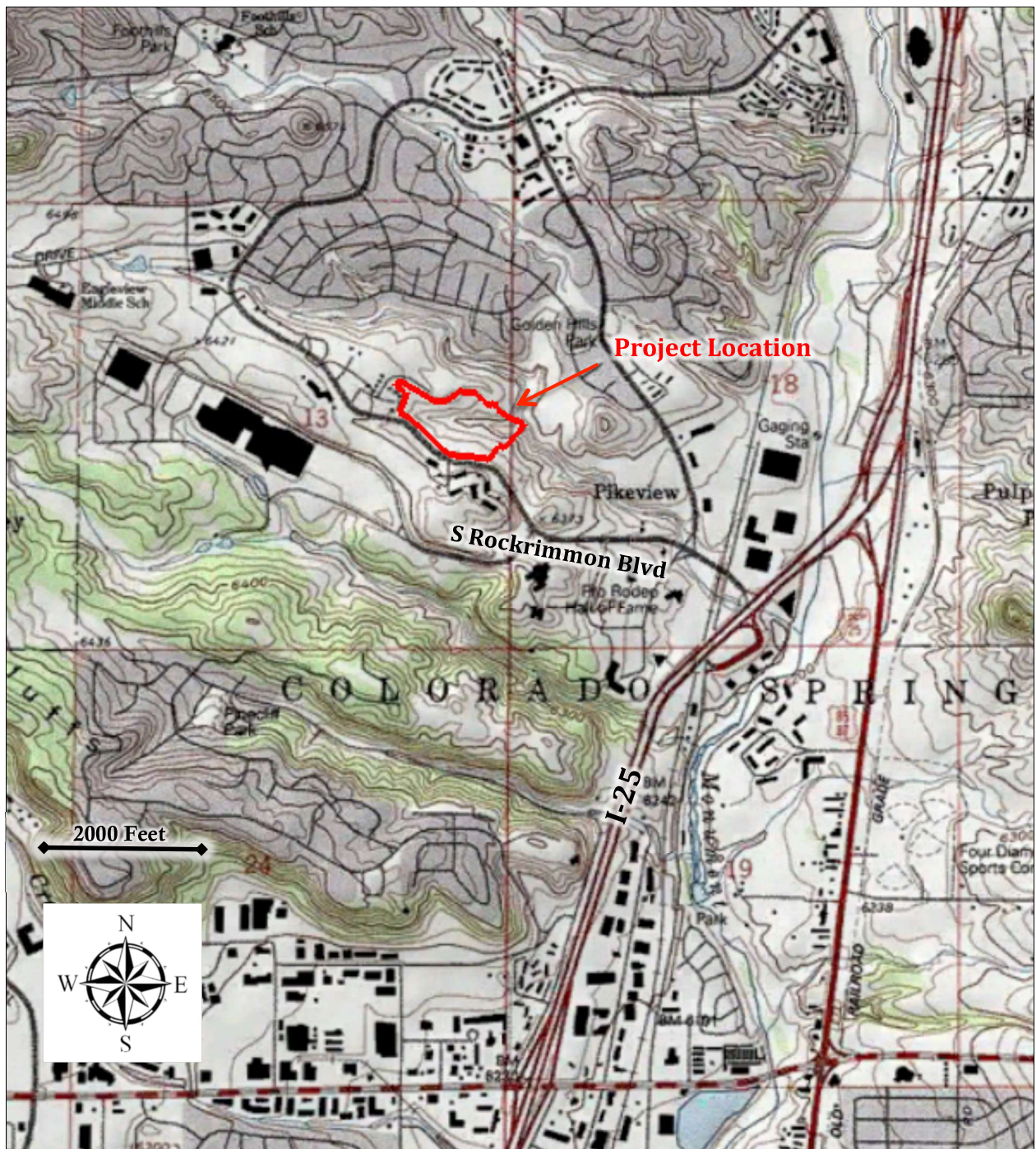


Figure 1. Project Location (252 Heavy Stone View, Colorado Springs)

1.2 Regulatory Background

Per Section 404 of the Clean Water Act, impacts to WUS (i.e. jurisdictional waters) are regulated by the US Army of Corps of Engineers. Waters of the US include traditional navigable waters (TNW), their tributaries, and adjacent wetlands. Both open waters (OW) and areas with an ordinary high water mark (OHWM) may be defined as WUS. The USACE defines wetlands as “Those areas that are inundated or saturated by surface or ground water 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 (USACE, 1987).

The Navigable Waters Protection Rule (NWPR) was issued in mid-2020 and went into effect in Colorado on March 2, 2021. One goal of the NWPR was to more clearly define WUS. The NWPR defines four categories of WUS:

1. Territorial seas and traditional navigable waters (TNW);
2. Perennial and intermittent tributaries that contribute surface flows to TNWs in a typical year either directly or through other WUS, through channelized non-jurisdictional surface waters, through artificial features (including culverts and spillways), or through natural features (including debris piles and boulder fields);
3. Lakes, ponds and impoundments of jurisdictional waters; and
4. Adjacent wetlands with a direct hydrologic surface connection to other jurisdictional waters.

The NWPR specifically excludes certain features as WUS including those not defined in the above four categories; groundwater; ephemeral features (streams, swales, gullies, pools) that only flow in response to precipitation; and stormwater control features excavated or constructed in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater run-off. Only the USACE has the authority to make jurisdictional determinations.

Federal agencies, such as the USACE, must comply with the National Environmental Policy Act (NEPA), consider impacts to federally-listed species per the Section 7 of the Endangered Species Act), and evaluate impacts to historic resources (per Section 106 of the National Historic Preservation Act). A habitat assessment for federally-listed species was completed and the results are included in this report. A survey for historic resources survey was also completed. The results are summarized in ENG FORM 6082 and the additional details are available in the “Class III Survey of Mapped Wetland Areas” completed by Historic Preservation Consultants and dated May 26, 2021.

1.3 Project Description

The project consists of a single-family residential development on a 17.47-acre parcel within the City’s “Creekside at Rockrimmon Filing No. 1 subdivision.” The project consists of 43 single-family residential lots, public roadways, utilities, and a large stormwater detention basin (Appendix A). Project construction requires grading steep slopes with unstable soils. Approximately 2.2 acres on the west side of the Site would be preserved as open space,

including 0.35 acre of wetlands. Trails would connect to the City-owned Rockrimmon Open Space. Wastewater, water, electric and gas services would be provided by Colorado Springs Utilities. The Site would be accessed from South Rockrimmon Boulevard via Heavy Stone View and via Goa Way (to be constructed). The existing private road, Heavy Stone View, would continue west, becoming a public road with this development. Internal roadways would be classified and constructed as local public residential roadways.

1.4 Avoidance and Minimization Measures

Multiple steps have been taken to minimize direct and indirect wetland impacts. The original project design would have impacted most of the wetlands on Site, including construction of a stormwater detention pond over the wetlands on the east edge of the Site, near the confluence with North Rockrimmon Creek. In order to reduce impacts, Cherry Faith Court was shortened, two lots were eliminated (from 45 lots to 43 lots), the size of ten lots was reduced, and the stormwater detention basin was moved upstream. This redesign changes avoid impacts to the lower half of Wetland D and all of Wetland E.

The project design is currently at the Development Plan review stage with the City. Design details will be finalized as the project moves through the Development Plan process and then the final plat and construction document stages. Drexel, Barrell, & Co. will incorporate the following measures to minimize indirect wetland impacts:

1. Stormwater runoff from the development would be managed by a full spectrum extended detention basin. The basin outlet structure would be sized to maintain the current low flow rate and restrict high flow rates so that they do not exceed historic rates and erode the downstream wetlands.
2. The culvert outflow from the detention basin into the downstream wetlands would be designed to maintain a low flow channel, but prevent erosion during high flows.
3. The existing stormwater flow from the culvert at South Rockrimmon Boulevard is not required to be treated in a detention basin and would be diverted towards the preserved wetlands. In order to avoid indirect wetland impacts, an outfall structure would be designed for the area above the wetlands that would maintain a low flow channel and prevent erosion during high flows. If possible high flows would be directed across the low area south of Wetland D to support the growth of riparian vegetation. Outlet protection measures would be installed in uplands and may include an energy dissipator/forebay system, a porous landscape detention basin to slow flows and support riparian vegetation, upland grade control structures to prevent erosion, and/or a flow spreader.
4. The landscaping plan would include:
 - a. Removal of all non-native Russian olives (*Elaeagnus angustifolia*) from the open space preservation areas and treatment of stumps with herbicide to prevent re-sprouting.
 - b. Native seed mixes in the detention basins and all open space preservation areas.

- c. Planting native riparian vegetation around the perimeter of the preserved wetlands. This would include at least two peachleaf willow (*Salix amygdaloides*), nine plains cottonwoods (*Populus deltoides*), six American plum (*Prunus americana*), 14 chokecherry (*Prunus virginiana*), five golden current (*Ribes aureum*), five rubber rabbitbrush (*Chrysothamnus nauseosus*), 20 sandbar willow cuttings (*Salix exigua*), and 12 showy milkweed (*Asclepias speciosa*). Plantings would be concentrated near the low areas around Wetland D and used to stabilize soils around stormwater outlets and expand existing riparian vegetation.

Options considered, but rejected, for improving the existing wetlands included removing the culvert between Wetlands D and E or grading down the banks of the deeply incised channel at Wetland E. Removing the culvert could destabilize the upstream wetlands or increase downstream erosion. Grading above Wetland E would impact native habitats along the channel including pine-oak woodlands on the steep slope to the south. Also, even though the Wetland E channel is deeply incised, that appears to have happened over 20 years ago and there are now dense sandbar willows growing throughout the channel bottom and established shrub cover on the banks.

2.0 Methods

A desktop review of the Site was completed, including:

- Mapping potential wetlands and open water areas based on aerial photographs and the National Wetland Inventory (NWI).
- Review of United States Department of Agriculture (USDA) Natural Resources Conservation Service soil survey data (USDA 2021) (Appendix B).
- Obtaining a list of federally-listed species with the potential to be impacted by the Project from the United States Fish and Wildlife (USFWS) Information, Planning, and Conservation (IPAC) System website (USFWS, 2021a).
- Reviewing a 2009 wetland delineation completed by Advanced Land Planning for Core Land Investments.
- Evaluating whether wetlands on the site are under the jurisdiction of the US Army Corps of Engineers (i.e. do they connect to downstream WUS).

Julia Auckland initially visited the site on March 8 with Paul Broussard (Premier Homes, Inc.) and Tim McConnell (Drexel, Barrell & Co) to evaluate potential new WUS/wetland areas and ground-truth a wetland delineation completed in 2009. The site was re-visited on May 21, 2021 to delineate wetlands per the 1987 USACE Wetland Delineation Manual, the 2010 Western Mountains, Valleys, and Coast Region Supplement, and the 2018 National Wetland Plant List. The USACE wetland delineation methodology requires documentation that wetlands meet criteria in three categories; (1) dominance of hydrophytic/wetland vegetation, (2) hydric/wetland soils, and (3) wetland hydrology.

The 2018 National Wetland Plant List assigns an indicator status to plants:

- Obligate (OBL) - Almost always occurs in wetlands under natural conditions
- Facultative Wetland (FACW) - Usually in wetlands, but occasionally in non-wetlands
- Facultative (FAC) - Equally likely to occur in wetlands and non-wetland
- Facultative Upland (FACU) - Usually in non-wetlands, but occasionally in wetlands
- Upland (UPL) - Almost always occurs in non-wetlands under natural conditions

Plants with an indicator status of OBL, FACW, and FAC are considered to be hydrophytic.

Representative wetland and upland sampling points (SP) were completed to document conditions and assist in determining the wetland boundary. However, soils were problematic due to dark upland soils with redox concentrations that appeared similar to hydric soils. Additionally, the wetland boundary in most areas was clearly defined by vegetation and topography. Thus, sampling points were not completed at every wetland. Wetland and open water boundaries were marked with numbered flags and recorded by surveyors. Site photographs (Appendix C) and wetland determination data forms are attached (Appendix D). Downstream connectivity/USACE jurisdiction was evaluated for each wetland.

3.0 Environmental Setting

The site is in the Foothill Grasslands in the Southwestern Tablelands Ecoregion (Chapman, et al. 2006). This ecoregion is found mostly in the 5,900 to 7,000 feet elevation range. It is a diverse transitional zone between the higher elevation forested foothills to the west and the lower elevation shortgrass prairie to the east. This hilly region supports ponderosa pine (*Pinus ponderosa*) - Gambel oak (*Quercus gambelii*) woodlands interspersed with native grasslands. Riparian communities along drainages support plains cottonwood, narrowleaf cottonwood (*Populus angustifolia*), sandbar willow, sedges, rushes and grasses. The area has historically been used for rangeland; however, residential development is increasing. The Site is currently vacant land that may have been used as rangeland or for coal mining in the past, but is currently used as open space by neighboring residents. The City-owned Rockrimmon Open Space and North Rockrimmon Creek are adjacent to the east side of the Site.

3.1 Soils

Per the United States Department of Agriculture Web Soil Survey, there are two soil map units within the project area and they are comprised of three soil series (Appendix B). The northern portion of the site, including the valley bottom and south-facing slope, is mapped as Razor clay loam, 3 to 9 percent slopes. Soils in the southern portion of the Site are mapped as Chaseville-Midway Complex. The three soil series are described below:

- The Razor clay loam series consists of moderately deep, well drained, slowly permeable soils that formed in alluvium and residuum derived from calcareous shales. Soils are neutral to strongly alkaline. The typical profile for this soil when moist is dark brownish gray (2.5Y 4/2) silty clay loam from zero to six inches, light olive brown (2.5Y 5/3) silty clay from six to 13 inches, and olive (5Y 5/3) silty clay from 13 to 23 inches.
- The Midway series is similar to the Razor series. It consists of shallow, well-drained soils that formed from calcareous platy, clayey shale. Midway soils are on ridge crests, mesas, plains, and hills in shale bedrock uplands. Midway soils are dark grayish brown (2.5Y 4/2) clay from zero to 12 inches and light olive brown (2.5Y 5/4) clay shale from 12 to 24 inches. They are slightly to strongly alkaline.
- The Chaseville series consists of deep, somewhat excessively drained soils that formed in alluvial materials. Chaseville soils are on alluvial fans and in small stream valleys. Chaseville soils are very gravelly coarse sandy loam and reddish brown (5YR 3/3 to 5YR 4/3) when moist. They range from slightly acid through mildly alkaline.

The observed soils and vegetation generally matched the Razor and Midway soil descriptions. The north side of the site has more homogeneous and alkaline-tolerant vegetation; this is consistent with the Razor soil series. The south side of the site is steeper with more diverse topography and vegetation. The soils observed at sampling points and in the eroded gulch were mostly dark clay to clay loam and matched the Midway series (Appendix D: Data Forms). Chaseville soils may be present in some of the steeper areas with more varied vegetation.

3.2 Vegetation

The south side of Site is vegetated with mid-grass prairies species characteristic of the mapped Razor clay loam soils, primarily western wheatgrass (*Pascopyrum smithii*) with lesser amounts of green needlegrass (*Nassella viridula*). There are also large areas with 10 to 20% cover of fourwing saltbush (*Atriplex canescens*) shrubs. The north side of the Site is more diverse, likely due to the varied topography and steeper slopes with a corresponding diversity of soil types. Some areas consist of grasslands similar to the south side. Other grassland areas are more diverse. The dominant grass species are western wheatgrass, blue grama (*Bouteloua gracilis*) and needle and thread (*Hesperostipa comata*) with lesser amounts of sideoats grama (*Bouteloua curtipendula*), buffalo grass (*Bouteloua dactyloides*), and green needlegrass. Forbs are diverse and included fringed sage (*Artemisia frigida*), hoary tansy aster (*Macarantha canescens*), Indian paintbrush (*Castilleja* sp.), common starlily (*Leucocrinum montanum*), and many other species. There is also scattered yucca (*Yucca glauca*) and western prickly pear (*Opuntia macrorhiza*). Woody vegetation is dominant in swales and on steeper slopes with common species including Gambel's oak, mountain mahogany (*Cercocarpus montanus*), golden currant (*Ribes aureum*), skunkbush sumac (*Rhus trilobata*), and common snowberry (*Symphoricarpos albus*). There are scattered ponderosa pine (*Pinus ponderosa*) trees on the steep easternmost slopes.

Portions of the Site have been disturbed, likely during construction of adjacent projects and associated utilities. These areas have been re-vegetated with non-native smooth brome (*Bromus inermis*) and tend to include common weeds such as Canada thistle (*Cirsium arvense*), common mullein (*Verbascum thapsus*), and flixweed (herb sophia) (*Descurainia sophia*). There is a very large pile (approximately 1.5 acres) of fill material in the southeast corner. This is mostly bare.

3.3 Hydrology

The Site consists of a small valley that drains to the east and into nearby North Rockrimmon Creek (Figures 1 and 2). All areas upstream of the Site have been developed. The surrounding residential development has likely altered the natural hydrology by increasing the quantity of surficial stormwater flows and sending stormwater directly into the wetlands via culverts. Two stormwater culverts drain onto the site from the south, a small one near the upper end of the valley wetland and a larger one farther east that has eroded a large gulch (Figures 1 and 2, Appendix A). Irrigation of surrounding lawns may also alter hydrology by increasing water. Farther downstream, a second access path crosses the wetlands and a large culvert conveys flows beneath the path. Thus, there is a hydrologic surface connection. The wetlands on Site continue to the east and converge with North Rockrimmon Creek, a small tributary to Monument Creek.

There was a USGS surface water monitoring station on North Rockrimmon Creek from 1998 to 2009. The station was 0.3 miles downstream of the east end of the site (USGS, 2021). The most

recent data, from 2007 to 2009, was reviewed. The creek appears to be a perennial stream because flow was observed during all of the measurement dates. The minimum flows were 0.01 cubic feet per second (cfs). The average flow was 0.18 cfs and median flow was 0.05 cfs. The maximum observed flow was 2.64 cfs in May 2009; this was the only time flows exceeded one cfs.

During the May wetland delineation the site was moderately wet from recent snow and rain. Conditions in March were dryer. Precipitation from May 1-21 was 2.58 inches and close to the average of 2.7 inches (National Weather Service, 2021). Soil was observed to be saturated at the surface in wetlands and there was a discontinuous trickle of water in some of the lower wetlands. The pond was full and there was a trickle of water in the eroded gulch.

4.0 Wetland Delineation Results

4.1 Valley Wetlands and Open Waters

Most of the open water and wetland features (i.e. “wetlands”) on the Site are along the valley bottom. All are categorized as palustrine and there are no streams associated with them (Cowardin, 1979). The wetlands are of moderate quality. Vegetative diversity is low and hydrology has been modified by stormwater and the construction of dams and culverts. However, they provide valuable functions including wildlife habitat, aesthetics, and water quality improvement (by slowing and filtering stormwater runoff before it reaches North Rockrimmon Creek). These aquatic resources are described below, starting at the west/upper end of the valley. See Table 1 for a summary, Figure 2 for mapping, and Appendix C for photographs.

- Wetland A consists of two dense patches of broadleaf cattail (*Typha latifolia*) (OBL) with lesser amounts of Canada thistle (FAC) (Appendix D: SP A2-W). These wetlands are located on a slope approximately fifteen feet below a small ridge (Appendix D: SP A1-U) and twenty feet above Wetland B in the valley bottom. The hydrologic source appears to be subsurface flows that daylight here due to contact with a heavy clay restrictive layer. The City GIS data and survey show a storm sewer outlet on the ridge, but it was not seen during the Site visit. These wetlands were not recorded in the 2009 delineation and may have developed more recently due to stormwater and/or irrigation runoff from the nearby residential subdivision. The patches of cattails are divided by a small dirt road that is vegetated with patchy wetland vegetation, primarily Baltic rush (*Juncus balticus*) (FACW). The road adjacent to the cattails was dry in March, but there were puddles and surface saturation in May. There are signs of past disturbance in the area including patches of smooth brome that appear to be associated with reseeding of areas disturbed during construction of the nearby homes and associated utilities. The hillside drops steeply from these wetlands to Wetland B at the bottom of the valley. Upland plant species are dominant on the slope (smooth brome [UPL] with lesser amounts of western wheatgrass [FACU] and Canada thistle [FAC]), thus creating an approximately 30-foot wide upland break between Wetlands A and B.
- Wetland B is a palustrine emergent marsh located in the bottom of the valley. Stormwater flows into the upper end of the wetland via a small (approximately six-inch diameter) pipe, which was dry on May 21. The upper portion of Wetland B is ten to 20 feet wide and vegetated with dense broadleaf cattails (95%) along with scattered Canada thistle and curly dock (*Rumex crispus*) (FAC). Wetland B narrows to the east and includes a small section filled with broken concrete before the wetland transitions to a pond (Open Water C). Surface saturation was observed throughout the wetlands and

surface flows were limited to an intermittent trickle at the downstream end. Thus, groundwater seems to be the primary source of hydrology.

- Open Water C is a pond created by construction of an elevated access road that functions as a dam. The pond was almost dry in March, but full in May. No culvert or evidence of flow from a buried culvert were observed. The pond perimeter is vegetated with a narrow, patchy band of Canadian horseweed (*Erigeron canadensis*) (FACU) (30%), curly dock (FAC) (15%), annual sunflower (*Helianthus annuus*) (5%) (FACU) and Canada thistle (5%) (FAC). In March these plants were mostly dead and in May they were submerged in water. Therefore, the open water boundary was delineated based on the May water level, which corresponds with the ordinary high water marks seen in March and aerial photographs. The OHWM is approximately two feet below the top of the access road. The access road/dam creates a 35-foot wide upland break, with no surficial hydrologic connection, between Open Water C and Wetland D.
- Wetland D is the largest wetland. It extends for approximately 550 feet along the flattest portion of the valley. The hydrologic source appears to be a combination of groundwater and surface flows. Stormwater from Open Water F flows into the upper end of the wetland via a culvert. The wetland bottom is flat with no clearly defined channel, 30% to 60% bare ground in the herbaceous layer, and the diversity of herbaceous species is low. This appears to be due to a combination of the fairly flat topography and the large volume of eroded sediment that flows into the wetland from Open Water F. There is not a continuous defined channel through the dense vegetation and fine sediment. In May, flow was a trickle that occasionally concentrated in small channels that were approximately one-foot wide and one to two inches deep. Therefore, no portion of this area was mapped as open water or could be considered a stream. Narrowleaf willow (FACW) (60% cover) is the dominant species throughout the wetland. In the upper half of Wetland D, there is also approximately 20% cover of broadleaf cattails (OBL) and 30% cover of plains cottonwood (FAC) trees. In the lower half, cattails are replaced by grasses such as bluejoint (*Calamagrostis canadensis*) (FACW) and there is approximately 10% tree cover consisting of peach leaf willows (FACW) instead of cottonwoods. In some areas, common snowberry (FACU) is abundant along the upland edge of the wetland. The wetland ends at a 48-inch diameter culvert that flows to Open Water J.
- Open Water J is within a section of grouted riprap below the culvert outfall. There was a trickle of flow in May, approximately 0.5 inch deep and one foot wide. Wetland E is located downstream.
- Wetland E is along the bottom of a narrow, incised channel. The wetlands are six to 15 feet wide and the channel banks are eight to twelve feet high. Wetlands vegetation extends across the channel bottom and consists of dense sandbar willows (~60% cover)

with a few small trees (plains cottonwoods and peachleaf willows). The steep banks are vegetated with herbaceous species and mature shrubs. There are no signs of recent erosion, thus it appears that the channel eroded over twenty years ago and is now stable. It is likely buffered from flashy upstream stormwater flows by Wetland D. Observed hydrology was similar to Wetland D, surface saturation and a discontinuous trickling flow with no defined channel. Wetland E ends at the property boundary, but the wetland channel continues east for approximately 60 feet where it converges with North Rockrimmon Creek.

4.2 Stormwater Gulch at South Rockrimmon Boulevard

There is a large eroded gulch (Open Water F and Wetland G) that extends from South Rockrimmon Boulevard to the bottom of the valley via a steep side slope (Table 1) (Figure 2) (Appendix C: Site Photographs). The water source is a large culvert that appears to collect stormwater flow from the streets and a detention pond. Stormwater runoff has eroded a gulch that is approximately 20-feet deep at the upper end. Due to the flashy flows and high rate of erosion, the area is significantly disturbed, normal circumstances are not present, and most of the gulch is not vegetated or vegetation (sandbar willows) is dead. The open water sections were delineated based on the estimated “ordinary” high water mark. During the May site visit, there was a trickle of water coming from the culvert and flowing through the channel. However, since there had been recent precipitation, it could not be determined if flows were entirely from stormwater (i.e. ephemeral) or if groundwater also contributes to flow. There is a small wetland near the south end of the gulch (Appendix D Wetland Determination Data Forms, SP G1-W). Vegetation is growing on a low bench that is protected from high flows by a sharp bend and an established cottonwood tree. Understory vegetation includes wetland and upland species; narrowleaf willow (FACW), snowberry (FACU), curl dock (FAC), and smooth brome (UPL). Wetland species are dominant. Below the wetlands, the last section of the Open Water F channel cuts through a small upland area vegetated smooth brome (an upland species). The gulch ends at an approximately 24” diameter culvert that drains into the upper end of Wetland D. The overall quality and ecological value of this feature is negative because stormwater flows erode high volumes of sediment that then flow into downstream wetlands along the valley.

4.3 Jurisdictional Evaluation

Only the USACE has the authority to make jurisdictional determinations. However, an initial assessment of jurisdiction was made per USACE guidance and the 2020 NWPR. Based on aerial photograph review and field observations, North Rockrimmon Creek flows into Monument Creek 0.75 miles southeast of the Site. Therefore, North Rockrimmon Creek is presumed to be a WUS under USACE jurisdiction.

Wetland A, Wetland B, and Open Water C do not have a surficial surface connection to downstream wetlands or potential WUS. There is approximately 30-foot wide upland slope between Wetlands A and B (Figure 2). An access road with no culvert creates a 35-foot wide

upland break between Open Water C and Wetland D. Since there is no surficial hydrologic connection to downstream jurisdictional waters, it is expected that these three aquatic resources are not WUS under USACE jurisdiction (Table 1).

The other wetlands and open waters are presumed to be WUS under USACE jurisdiction. Wetland D, Wetland E, and Open Water J all have a hydrologic connection to North Rockrimmon Creek (Table 1). Open Water F likely began as an ephemeral upland channel that only flowed in response to stormwater. However, due to the deep erosion the channel now appears to intercept groundwater and have at least intermittent flow into Wetland D.

Table 1. Wetlands and Open Waters Summary and Impacts

Feature Name	Cowardin Classification (all are Palustrine)*	Aquatic Resources		Impacts			Preservation	
		Square Feet	Acres	Square Feet	Acres	Fill - Cubic Yards	Square Feet	Acres
Presumed Non-Jurisdictional Wetlands and Waters (lack surficial hydrologic connection to WUS)								
Wetland A	Emergent	2,269	0.05	2,269	0.05	-	-	-
Wetland B	Emergent	3,585	0.08	3,585	0.08	400	-	-
Open Water C	Unconsolidated Bottom	5,946	0.14	5,946	0.14	1,100	-	-
	Non-WUS Subtotals:	11,800	0.27	11,800	0.27	1,500	0	0
Presumed WUS under USACE Jurisdiction (have a direct surficial hydrologic connection to WUS)								
Wetland D	Scrub-Shrub	25,990	0.60	13,586	0.31	1,050	12,404	0.28
Wetland E	Scrub-Shrub	2,614	0.06	-	-	-	2,614	0.06
Open Water F	Unconsolidated Bottom	1,593	0.04	1,593	0.04	60	-	-
Wetland G	Scrub-Shrub	488	0.01	488	0.01	35	-	-
Open Water J	Rock Bottom	227	0.01	-	-	-	227	0.01
	WUS Subtotals:	30,912	0.71	15,667	0.36	1,145	15,245	0.35
	TOTALS:	42,712	0.98	27,467	0.63	2,645	15,245	0.35

* From "Classification of Wetlands and Deep Water Habitats of the United States" (Cowardin, et al. 1979)

5.0 Federally-Listed Species Assessment

The United States Fish and Wildlife Service's (USFWS) Information for Planning, and Conservation (IPaC) database was used to download a list of federally-listed threatened and endangered species with the potential to occur in, or be impacted by, the Project (USFWS, 2021a). Per the IPaC, there is no USFWS designated critical habitat on Site and the Project could potentially impact seven species. A habitat assessment and impact evaluation was completed for these species.

The Project would have “no effect” on the following six listed species because no downstream impacts would occur and/or there is no habitat on Site.

- Four species are listed because they could be impacted by projects that include water-related activities and/or use in the N. Platte, S. Platte and Laramie River Basins; piping plover (*Charadrius melodus*), whooping crane (*Grus americana*), pallid sturgeon (*Scaphirhynchus albus*), and western prairie fringed orchid (*Platanthera praeclara*). The Project is not in the listed watersheds, nor would it impact them.
- The greenback cutthroat trout (*Oncorhynchus clarki stomias*) occurs in cold, clear, gravely headwater streams and mountain lakes. There is no habitat on Site, this species is not known to occur downstream, and no downstream impacts would occur.
- There is no suitable habitat on Site for the Eastern black rail (*Laterallus jamaicensis ssp. jamaicensis*). This species requires large marshy areas dense overhead perennial herbaceous cover interspersed with or adjacent to very shallow water (USFWS, 2021b). In Colorado, this species is only known to occur in large marshes associated with the Arkansas River and surrounding impoundments.

The Project “may effect, but is not likely to adversely affect” the Ute ladies'-tresses orchid (ULTO) (*Spiranthes diluvialis*). This species occurs in seasonally moist soils and wet meadows near springs, lakes, or perennial streams and their associated floodplains below 6,500 feet elevation (USFWS, 1992). Typical habitats include old stream channels and alluvial terraces, sub-irrigated, meadows, and other sites where the soil is saturated to within 18 inches of the surface during the growing season. They prefer well-drained soils (not clay) and relatively low, open herbaceous vegetation. Effects to this species would be discountable because they are extremely unlikely to occur for the following reasons:

- There are no known populations in El Paso County.
- The Site is close to the known upper elevation for this species (6,500 feet).
- The Site is in an isolated valley surrounded by uplands on three sides.
- Only the easternmost edge of the Site is near a perennial stream and floodplain, and this area would not be impacted by the Project.

- Soils are mostly poorly drained clay.
- There is dense cover of cattails and sandbar willows in most wetland areas.
- There are no of the low, diverse, open herbaceous wet meadows.

If the USACE or USFWS determines that they are warranted, then surveys could be completed during the early-August flowering period. If the species is not found during surveys, the impact conclusion would change to “No Effect.”

6.0 Wetland and Open Water Impacts and Mitigation

Only the USACE has the authority to make jurisdictional determinations and set mitigation requirements. Since an approved jurisdictional determination has not yet been completed for this project, the following impact areas are based on USACE policies, including the 2020 NWPR. Similarly, the proposed mitigation is based on Nationwide Permit Special Condition 23 and the 2021 South Pacific Division mitigation ratio guidelines.

6.1 Impacts

The project would result in permanent impacts to 0.36 acre of presumed WUS (Table 1) (Figure 3). Impacted WUS are comprised of 0.32 acre of palustrine scrub-shrub wetlands (Wetlands D and G) and 0.04 acre of open water in an eroded gully (Open Water F) (Appendix A). No temporary WUS impacts are expected. The majority of the direct impacts would be to Wetland D and caused by grading of slopes for lots and construction of a stormwater detention pond.

The project would also permanently impact 0.13 acre of wetlands (Wetlands A and B) and a 0.14 acre seasonally ponded area that are presumed to be non-jurisdictional because they lack a surficial hydrologic connection to downstream WUS (Table 1) (Figure 3). Grading of the Property to create lots and roads would fill these areas.

Indirect impacts could occur due to changes in hydrology by cutting off wetland hydrology and increasing erosional stormwater flows. These impacts could result in the loss of most preserved wetlands on Site through drying or erosion. They could also have water quality effects that extend to Monument Creek. Altering native vegetation and introducing non-native species is another potential indirect impact.

6.2 Compensatory Mitigation Proposal

Mitigation requirements for direct wetland impacts would primarily be met through the purchase of wetland mitigation bank credits. Credits are currently available from the Maria Lake Wetland Mitigation Bank (Maria Lake). The Project is located within the primary service area of the bank and impacted WUS are of moderate quality. The function and value of wetlands at Maria Lake is expected to be slightly higher than those being impacted since they are located in a less disturbed area and have not been physically modified. Therefore, a wetland mitigation ratio of 1:1 is expected to be required for the permanent impacts to 0.32 acres of palustrine shrub scrub wetlands.

Per Nationwide Permit Special Condition 23 for Mitigation, the USACE may require compensatory mitigation for impacts to open water if needed to “to ensure that the activity results in no more than minimal adverse environmental effects.” There would be impacts to 0.04 acre of open waters associated with an eroded stormwater gully. However, the open water quality is negative (if that is possible) due to ongoing erosion that washes sediment into downstream waters. Impacts to these open waters would be mitigated by construction of a

stormwater detention pond and stormwater outlets designed to maintain existing low flow levels and minimize erosional high flows. These infrastructure improvements are expected to provide functional gains over the existing condition. Thus, the purchase of additional compensatory mitigation credits for open water impacts is not expected to be required.

The Project includes multiple measures to minimize indirect WUS impacts. Approximately 2.2 acres on the west side of the Site would be preserved as open space, including 0.35 acre of moderate quality palustrine shrub-scrub wetlands (part of Wetland D, all of Wetland E and all of Open Water J) (Table 1) (Figure 2). The preserved uplands are an important buffer for the wetlands; they include an area of diverse trees and shrubs on the steep slopes south of Wetland E. Native riparian plantings would enhance the preserved wetlands. Stormwater infrastructure would be designed to maintain existing low flow levels and minimize erosional high flows. Stormwater and landscaping plans would be finalized later in the Project. See Section 1.4 “Avoidance and Minimization Measures” for additional details.

7.0 Conclusions

The Site includes both presumed WUS and presumed non-jurisdictional wetlands and open waters. Therefore, a USACE approved jurisdictional determination is being requested at this time, including the required USACE form.

Since permanent impacts to presumed WUS would be less than 0.5 acre, it is anticipated that the Project would be covered under Nationwide Permit Number 29 for Residential Development. This report has been prepared to meet pre-construction notification (PCN) requirements and the NWP PCN application form (ENG FORM 6082) will be submitted to the USACE.

The proposed compensatory mitigation for direct impacts to 0.32 acre of wetlands, consisting mostly of moderate quality PSS, is purchase of credits at a 1:1 ratio from a wetland mitigation bank for which the primary service area includes the Project. At this time, Maria Lake Mitigation Bank has credits available. Impacts to 0.04 acre of open water along an eroded stormwater gully would be mitigated onsite by upgrading the stormwater management. The project would include multiple design measures to mitigate indirect impacts, including improved stormwater management and riparian habitat enhancement.

No impacts to federally-listed threatened and endangered species are expected. The USFWS IPAC database listed seven species (USFWS, 2021). The project would have “no effect” on six of them. The Project “may effect, but is not likely to adversely affect” the Ute ladies’-tresses orchid because it is extremely unlikely to occur on Site (i.e effects are “discountable”). If requested by USACE or USFWS, ULTO surveys could be completed during the early-August flowering period to confirm the absence of this species. If the species is not found during surveys, the conclusion would change to “No Effect.”

The historic resources survey detected no resources, thus no impacts are expected.

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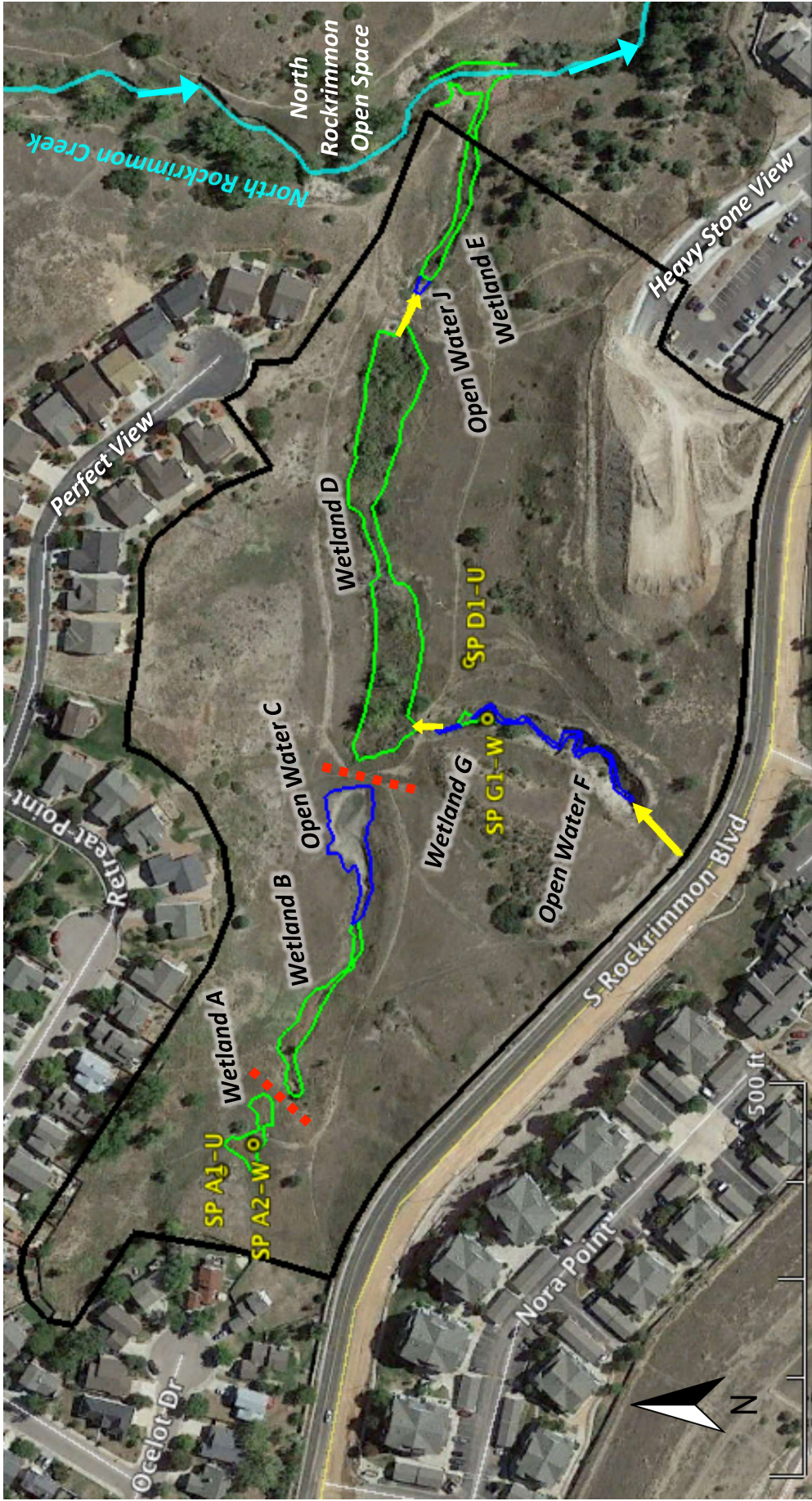
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 Wetlands • Wildlife • Vegetation

252 Heavy Stone View, Creekside at Rockrimmon
 Colorado Springs, Colorado


Figure 2. Wetland Delineation Results

- Legend**
- Site Boundary
 - Open Water*
 - Wetland*
 - Sampling Point (SP)
 - Culvert and Flow Direction
 - Upland Break

*Delineated May 21, 2021



<p>AUCKLAND ENVIRONMENTAL CONSULTING</p> <p>Wetlands • Wildlife • Vegetation</p>	
<p>252 Heavy Stone View, Creekside at Rockrimmon Colorado Springs, Colorado</p>	
<p>Figure 3. Impacts to Wetlands and Open Waters</p>	
<p>Legend</p> <ul style="list-style-type: none"> — Site Boundary — Open Water* — Wetland* ○ Sampling Point (SP) → Culvert and Flow Direction - - - Upland Break ■ WUS Permanent Impact ■ Non-WUS Permanent Impact 	<p>*Delineated May 21, 2021</p> <p>Aerial Photo: October 6, 2019</p> <p>Figure Revision: June 18, 2021</p>

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EXHIBIT
**CREEKSIDE AT ROCKRIMMON
 SINGLE-FAMILY FILING NO. 1**
 COLORADO SPRINGS, COLORADO

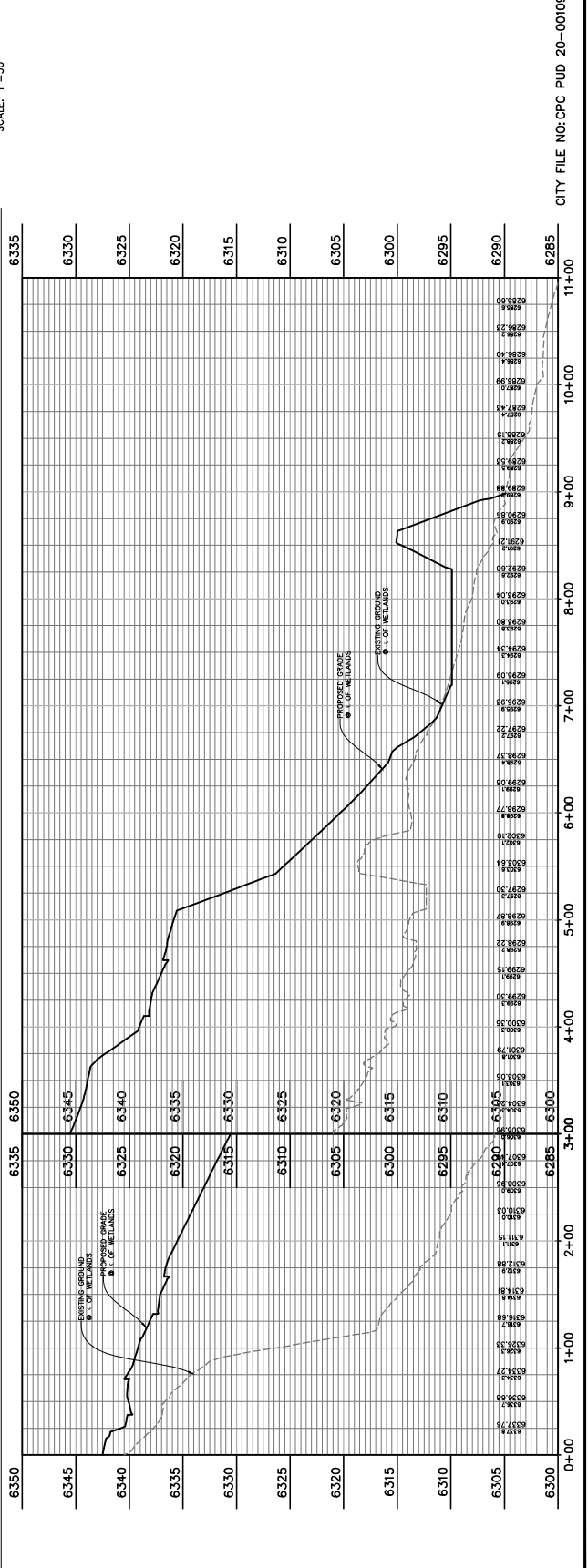
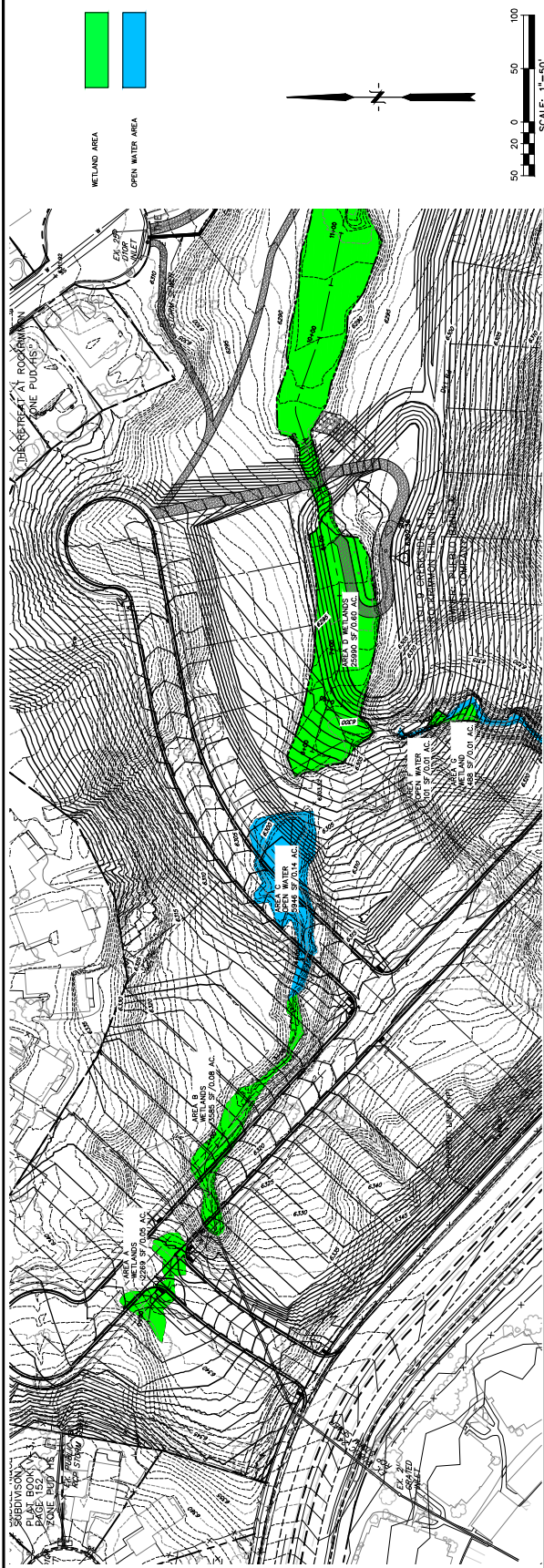
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LATEST ISSUE	6/7/21


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 VERTICAL: 1"=5'

**WETLAND
 PLAN & PROFILE
 EXHIBIT**

PROJECT NO. 2024-05552
 DRAWING NO. WL-1
WL-1
 SHEET: 1 OF 2



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WETLAND
PLAN & PROFILE
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 DRAWING NO. **WL2**

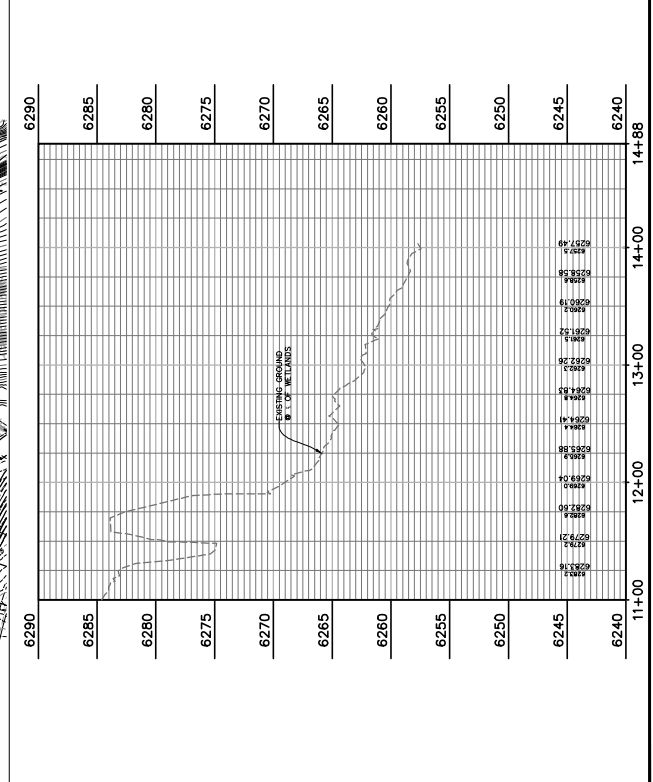
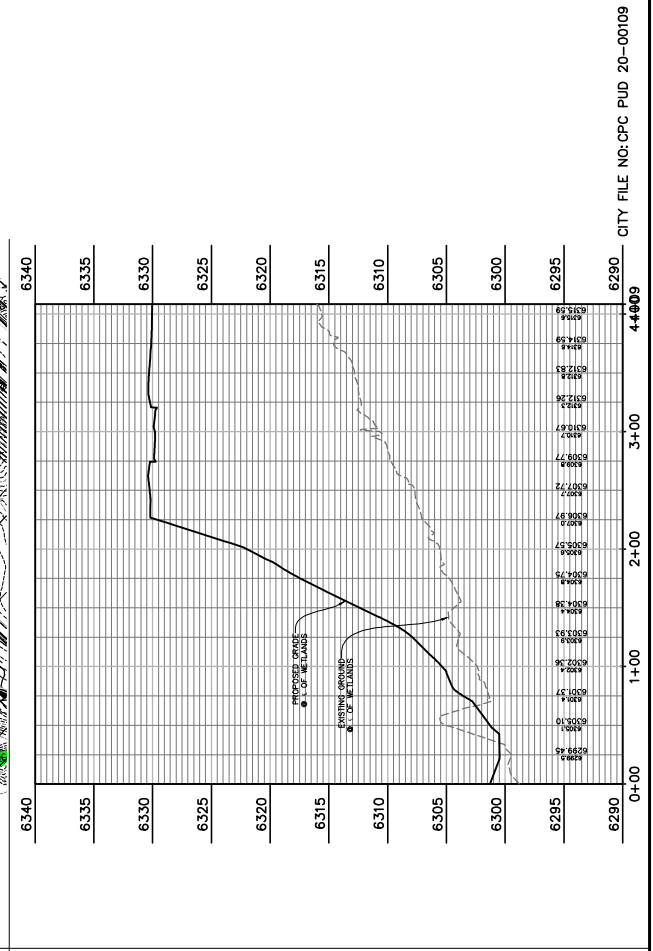
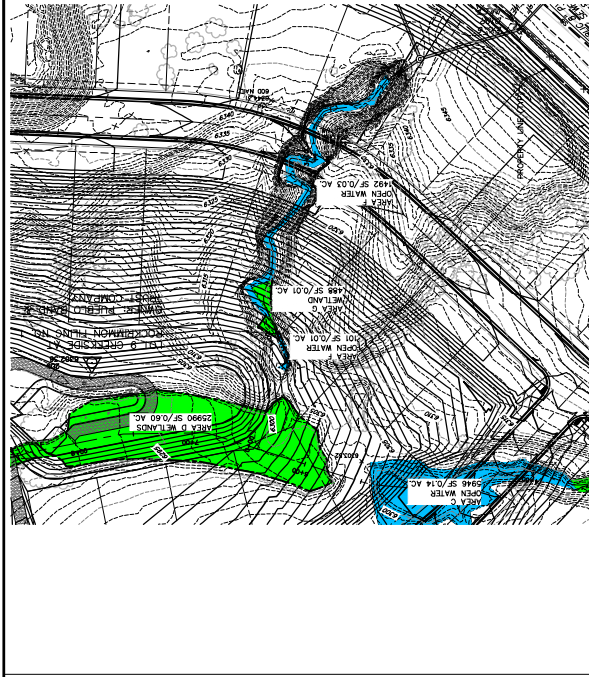
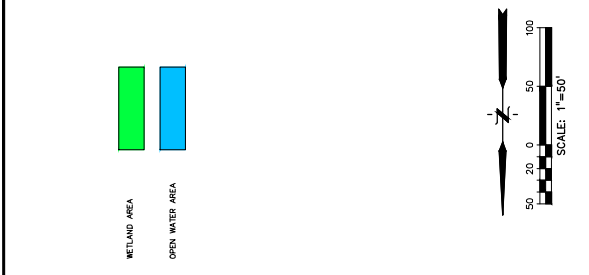




Table — Ecological Sites by Map Unit Component —

El Paso County Area, Colorado					
Map unit symbol	Map unit name	Component name (percent)	Ecological site	Acres in AOI	Percent of AOI
18	Chaseville-Midway complex	Chaseville (70%)	R049XB215CO — Gravelly Foothill	8.8	49.4%
		Midway (28%)	R049XY212CO — Shaly Foothill		
		Other soils (1%)			
		Pleasant (1%)			
73	Razor clay loam, 3 to 9 percent slopes	Razor (95%)	R069XY047CO — Alkaline Plains LRU's A & B	9.0	50.6%
		Other soils (4%)			
		Pleasant (1%)			
Totals for Area of Interest				17.8	100.0%

Appendix B. Web Soil Survey and Summary Table (Source: USDA Natural Resources Conservation Service)



1. Upland Sampling Point (SP) A1-U, facing east from the top of the valley and across the Site. Cattails at Wetland A are visible beyond the sampling point. *May 21, 2021.*



2. Facing north towards Wetland A and SP A1-W. *May 21, 2021.*



3. Facing northeast across the upland break on the slope between Wetland A (photo left) and Wetland B (photo right). *May 21, 2021.*



4. Facing east down the valley, towards Wetland B and Open Water C (pond). *May 21, 2021.*



5. Photo facing northeast across Open Water C (pond) when it was almost dry. The pond is formed by an access road that functions as a dam. There is no culvert to convey surface flows downstream of the pond. March 8, 2021.



6. Photo facing south towards Rockrimmon Boulevard and across the access road between Open Water C and Wetland D. Open Water F and Wetland G are located in the gully on the far slope; they flow into the upper end of Wetland D. May 21, 2021.



7. Facing north towards SP D1-U and Wetland D. *May 21, 2021.*



8. Dense wetland vegetation in Wetland D. Soil was saturated at the surface, but flows were limited to small trickles in a few areas. Conditions were similar in Wetland E. Photo taken near upper/west end and facing west. *May 21, 2021.*



9. Photo taken from path on top of a 48-inch diameter culvert and facing east/downstream. The Wetland E channel is deeply incised, but vegetation is well-established. Open Water J consists of grouted riprap at the culvert outflow, flows were a trickle and below the ordinary high water mark. *May 21, 2021.*



10. Stormwater outlet at the top of the eroded gully (Open Water F). Photo is facing south toward S. Rockrimmon Boulevard. Runoff appears to come from roads and a detention basin in the apartment complex. *May 21, 2021.*



11. Facing southeast across a typical section of the eroded gully/Open Water F. Dark clay soils with orange oxidization were observed along the walls of the gully from top to bottom. *May 21, 2021.*



12. Wetland G and SP G1-W, facing south/upstream within the eroded gully. Wetland vegetation was limited to this one small area that was protected by a bend in the gully and the cottonwood tree. *May 21, 2021.*