STORMWATER MANAGEMENT PLAN (SWMP)

Monument Ridge East Filing 1 (SF2514)

Colorado Springs, Colorado 80132

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ENGINEER'S STATEMENT:

This SWMP was prepared under my direction and supervision and is correct to the best of my knowledge and belief. If such work is performed in accordance with the SWMP, the work will not become a hazard to life and limb, endanger property, or adversely affect the safety, use, or stability of a public way, drainage channel, or other property.

Printed Name: Raymond E. Perez, III, PE Date: 06/24/25

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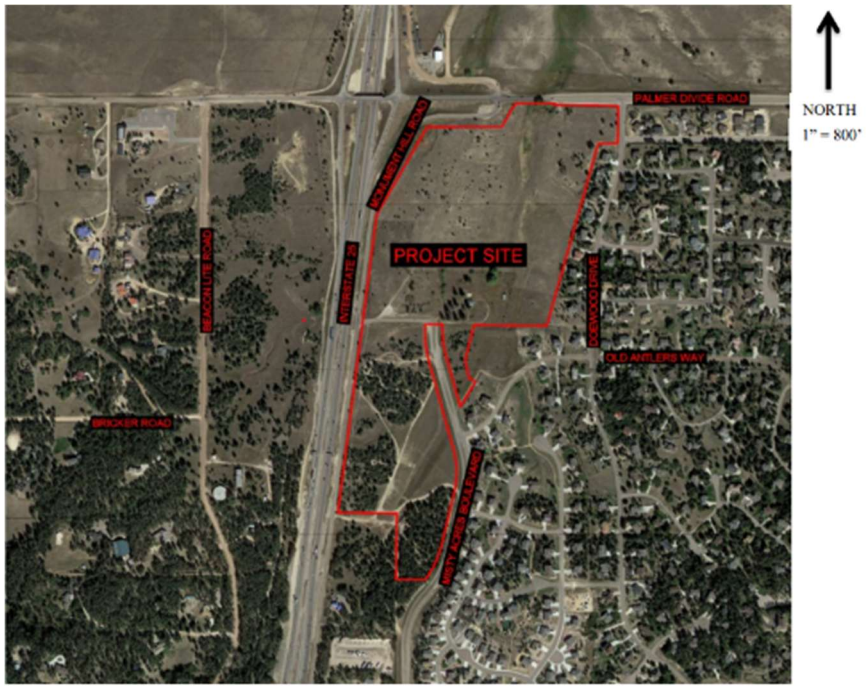
1. Site and Project Description

This project is located in El Paso County, Colorado. Access to the site is from Palmer Divide Road (aka – County line road). It is located in Section 2, Township 14 south, Range 67 west of the 6th Principal Meridian. A vicinity map is provided below in Figure 1. The total project area is approximately 65 acres with an anticipated area of disturbance of 34 Acres from clearing, excavation, grading and other construction activities.

Figure 1 – Vicinity Map



2. Construction Activity

The Project is a single-family development. The project will consist of single-family homes and associated site elements typical of residential development (e.g. – roadways, buildings, walkways, parks/open space, detention/water quality ponds etc.). The proposed development area is currently vacant. The amount of vegetation is estimated to be roughly 39 percent of the site. This was determined using aerial imagery from Google Earth dated May 2025.

3. Adjacent Areas

The site is in the proposed Monument Ridge East Subdivision. The site is bounded to the north by existing Palmer-Divide Road to the east by Doewood Drive and Misty Acres Boulevard, to the west by Interstate 25.

4. Progression of Significant Activities

Once best management practices (Control Measures) are in place, construction will commence utilizing phasing to minimize stormwater and erosion impact.

Please see "Construction Schedule/Sequencing" for further description of the sequence of events.

5. Construction Phasing

Project Schedule/Sequencing:

- Estimated Construction Start Date – June 1, 2026
- Estimated Construction Completion Date – February 28, 2027
- Sediment (mud and dirt) transported onto a public road, regardless of the size of the site, shall be cleaned/removed at the end each day.
- Soil erosion Control Measures for all slopes, channels, ditches, or any disturbed land area shall be completed immediately after grading or earth disturbance has occurred. All temporary soil erosion Control Measures and Control Measures shall be maintained until site reaches final stabilization and permanent soil erosion Control Measures are implemented.
- Once the road is cleaned and the surrounding disturbed areas have achieved final stabilization using vegetative cover, the silt fences around the Project site can be removed. Final stabilization will be considered complete when there is evenly distributed perennial vegetation that covers at least 70% of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site.
- Topsoil stockpiles will be stabilized with temporary seed and mulch no later than fourteen days from the last construction activities in that area.

The project construction can be broken down into 4 main construction phases:

1. Control Measures Prior to Construction Commencement (Pre-Disturbance Stage)

Anticipated Start: June 1, 2025 Anticipated Completion: June 31, 2025
During this initial stage, CMs are installed to prepare the site for grading and minimize potential pollution before any major ground disturbance begins.

- Stabilized Staging Areas (SSA): These areas, designated for construction equipment, vehicles, stockpiles, and waste bins, will be constructed with a minimum of 3 inches of angular granular material prior to any commencement.

- Stabilized Construction Site Entrance: This will be constructed before clearing and grading activities begin
.
- Vehicle Tracking Controls (VTC): Installed at all access points from the construction site to public roads, especially crucial during wet weather or with clayey soils, to prevent sediment tracking off-site.

- Silt Fence (SF): Perimeter silt fence will be installed prior to grading activities, including along each side of the Vehicle Tracking Control.

- Curb Socks (Rock Socks, RS): These will be installed prior to any ground-disturbing activities and used as a CM treatment train to prevent sediment from impacting the storm sewer system.

- Inlet Protection (IP) and Curb Inlet Protection (CIP): Installed for existing inlets prior to any ground-disturbing activities, and maintained throughout subsequent phases. Sediment and debris removal is required when build-up is visible.

- Construction Fence (CF): Used to delineate site boundaries and restrict access to sensitive areas, such as wetlands or mature trees, which are designated for protection.

- Concrete Washout Area (CWA): These areas will be installed on-site with clear signage for operators. Excavated material may be used for perimeter berm construction, and an impervious liner must be used if shallow groundwater is a concern.

- Locating Portable Toilets (PT): Placed on flat surfaces away from drainage paths, anchored to prevent tipping, and located a minimum of 10 feet from stormwater inlets and 50 feet from state waters.

- Stockpile Protection (SP): If topsoil stockpiles are created, they will be separated, left roughened, and/or covered, and protected with perimeter control BMPs. They should be located away from drainage paths and accessed from the upgradient side.

- Waste Disposal Areas: Established on-site for solid and liquid wastes.

2. Control Measures During Construction (Stage 2: Overlot Grading)
Stage 2: Overlot Grading Anticipated Start: June 15, 2025 Anticipated Completion: August 31, 2025

This stage involves significant earth-moving activities.

- Additional Silt Fences (SF): Installed as overlot grading begins.
- Surface Roughening (SR) of the Slopes: Implemented to reduce erosion on exposed slopes.
- Minimizing Disturbed Areas: Overall disturbed areas will be kept to a minimum, and pre-existing vegetation protected.
- Temporary Sediment Basins (TSBs) / Permanent Extended Detention Basins (EDBs): The project's four proposed permanent EDBs (Ponds 1, 2, 4, and 5) will serve as temporary sediment basins during construction to capture and settle sediment from runoff, given the project's disturbance area exceeds 1 acre.

3. Infrastructure and Building Construction (**Stage 3)**
Anticipated Start: September 1, 2025 Anticipated Completion: January 31, 2026
This phase involves the installation of utilities, roads, and vertical construction.

- More Silt Fence (SF): Additional silt fence will be installed as needed.
- Concrete Washout Area (CWA): Continues to be utilized. All concrete waste will be removed and disposed of at an approved waste site as needed. Concrete waste will not be dumped on-site or into any drainage way or storm sewer, and equipment will utilize integral washout systems.
- Inlet Protection (IP) and Curb Inlet Protection (CIP): Installed for permanent drainage improvements as they are constructed, and continuously maintained.
- Stockpile Protection (SP): Stockpiled dirt, if present, will be protected by silt fence around its base to prevent soil migration. Stockpiles and other disturbed areas inactive for at least 14 days will be temporarily stabilized with methods like seeding and mulching.
- Erosion Control Blanketing (RECP): Exposed slopes steeper than 4:1 (or 3:1) will be covered by an erosion control blanket combined with mulching (MU) to protect the soil surface and reduce runoff.
- Straw Wattles (Sediment Control Logs - SCL) and Rock Socks (RS): Utilized as a CM treatment train to prevent sediment from impacting the storm sewer system.

- Dust Control (DC): Implemented by daily inspections of dusty areas and spraying with water as needed, taking care not to cause muddying or off-site impacts.

- Street Sweeping and Off-site Tracking Control (SS): Performed daily on public roads to minimize sediment tracking.

- Good Housekeeping Practices (GH): Continuously implemented for proper waste management (solid and liquid wastes, portable toilets), material storage, equipment staging and maintenance, and spill prevention/response. Hazardous materials will be stored with secondary containment.

- Daily Trench Closure and Material Placement: Attempts will be made to close trenches prior to inclement weather and at the end of each day. Excavated material will be placed on the upgradient side of trenches where safety and space permit.

- Shallow Groundwater CMs: If shallow groundwater is encountered (anticipated in pond areas), proper permits will be obtained for any groundwater discharge.

- Routine Inspections: Visual inspections of all cleared and graded areas will be performed on a minimum occurrence of once per week and/or within 24 hours of the end of any precipitation or snowmelt event that causes surface erosion. The first inspection shall occur within 7 days of construction commencement.

4. Control Measures for Final Stabilization, Re-Vegetation, and Long-Term Stormwater Management (**Stage 4)**
Anticipated Start: January 31, 2026 Anticipated Completion: February 28, 2026
This stage involves permanent measures and the removal of temporary CMs once construction is complete in an area. The site will be permanently stabilized through the use of permanent surfaces, primarily concrete, asphalt, and seed/mulch.

- Permanent Seeding (PS): Areas where construction activity permanently ceases will be stabilized with permanent seed and mulch. Final stabilization is achieved when uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels, or equivalent permanent physical erosion reduction

methods have been employed, with weeds not counting towards this requirement.

- Landscaping: Constructed as outlined on the Grading and Erosion Control Plan, Drainage Report, and/or any construction documents.

- Permanent Rip-rap: Constructed as outlined on plans, particularly at critical outfall locations for energy dissipation to prevent scour.

- Curb and Gutter: Constructed as outlined on plans as part of the permanent stormwater conveyance system.

- Permanent Extended Detention Basins (EDBs): The four private full-spectrum EDBs (Ponds 1, 2, 4, and 5) will serve as permanent post-construction control measures, designed to treat Water Quality Capture Volume (WQCV) and regulate discharge rates. They include features like forebays, maintenance access roads, concrete trickle channels, micropools, and outlet structures, and are equipped with riprap emergency overflow spillways.

- Removal of Temporary Control Measures: Once final stabilization is achieved, temporary CMs including stabilized staging areas (SSA), vehicle tracking controls (VTC), silt fence (SF), construction fence (CF), and inlet protection (IP/CIP) will be removed. Trapped sediment and disturbed soil areas resulting from the disposal of temporary measures must be returned to final plan grades and permanently stabilized.

- Continued Good Housekeeping: Will be employed to ensure a clean and complete project site.

- Other non-structural CCMs include, but are not limited to, limiting disturbed areas and street-sweeping.

6. Soils and Soil Report

The proposed development is 65 acres. Ground cover appears to be a mix of sparse vegetation, including grasses and scattered trees, and bare ground, with visible dirt roads and paths throughout.

The general topography of the land slopes to the north. According to the Natural Resources Conservation Service (NRCS), the soils in this area consist of Alamosa loam and Peyton-Pring complex sand, The erodibility of the identified soils varies. Alamosa loam (HSG D) generally has a high runoff potential and low infiltration rates when thoroughly wet, indicating a higher erodibility. Peyton-Pring

complex (HSG B) has moderate infiltration rates when thoroughly wet and moderate runoff potential, suggesting moderate erodibility. Further details on the erodibility, a soil map and map unit (soils type) descriptions describing the HSG and other soils properties are provided in the Appendix.

A groundwater determination has been made, and it appears that there are areas on site in locations where ponds will be built which have shallow groundwater. Per CDHPE "Low Risk Discharge Guidance – Discharges of Uncontaminated Groundwater to Land" discharging groundwater to a pond is prohibited. Permits to do so can be found on the CDPHE web site. Permits will need to be obtained prior to construction.

Table 1 - NRCS Soil Survey for El Paso County Area, Colorado

Soil ID No.	Soil Type	Hydrologic Classification
1	Alamosa loam, 1 to 3 percent slopes	D
69	Peyton-Pring complex, 8 to 15 percent slopes	B

7. Non-Stormwater Discharge

There are no non-stormwater discharge sources that have been observed or are anticipated at this project site other than the allowable non-stormwater discharges covered in this section. Discharge of concrete wash water to the ground (e.g., in a concrete washout area) is an allowable non-stormwater discharge under the Colorado Discharge Permit System (CDPS) General Permit COR400000, specifically Part I.A.1.b.ii stating "Discharges to the ground of concrete washout water associated with the washing of concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach receiving waters as defined by this permit". As detailed in Section 12.1.6 of this report Control Measures for Concrete Waste, concrete waste will not be dumped on-site or into any drainage way or storm sewer, and equipment involved in concrete mixing and transport will utilize integral washout systems. Concrete washout locations must also not be situated where shallow groundwater may be present, as this could compromise the soil's buffering capacity.

Furthermore, groundwater is anticipated on site, particularly in areas designated for pond construction, as stated in the Final Drainage Report

Monument Ridge East – Filing No.1 on page 7. Proper permits will be obtained for any groundwater discharge prior to construction. Discharges of uncontaminated groundwater, including those aligning with a division low risk discharge guidance policy, are recognized as allowable non-stormwater discharges under the COR400000 permit. Should groundwater or other discharges be encountered, proper permits will be obtained, stormwater management measures will be taken, and the SWMP will be revised and updated accordingly.

8. Receiving waters

Stormwater runoff from this Project is primarily directed to the north. This runoff will ultimately discharge into a wetlands depression area located south of and adjacent to Palmer Divide Road. While the site generally flows north, Monument Creek serves as the ultimate receiving water for the Bald Mountain major drainage basin, encompassing the project area. No stream crossings are located within the immediate project vicinity.

Stormwater is managed and conveyed off-site through a comprehensive system of engineered control measures. This system ensures compliance with discharge requirements. Key components and flow paths include:

Collection System: Stormwater is collected via proposed storm piping, inlets, and manholes. Components within the public right-of-way will be publicly owned and maintained, while other storm system elements will be privately owned and maintained by the metropolitan district or homeowners' association (HOA).

Extended Detention Basins (EDBs): The project incorporates four private full-spectrum extended detention basins, Ponds 1, 2, 4, and 5, (see Final Drainage Report Monument Ridge East – Filing No. 1) These EDBs are designed to:

- Treat the Water Quality Capture Volume (WQCV) and regulate discharge rates by releasing flows over a longer period of time, meeting or exceeding Drainage Criteria Manual (DCM) standards.
- Each EDB is equipped with an outlet structure for controlled release and a riprap emergency overflow spillway to safely manage 100-year peak flows in case of outlet structure clogging. A minimum of 1.0' of freeboard will be provided for spillways.
- The approximate volumes for the ponds are: Pond 1 (~1.5 acre-ft detention, ~0.1 acre-ft WQCV), Pond 2 (~1.8 acre-ft detention, ~0.2 acre-ft WQCV), Pond 4 (~1.7 acre-ft detention, ~0.3 acre-ft WQCV) and Pond 5 (~0.23 acre-ft detention, ~0.05 acre-ft WQCV).

Flow Routing and Outfalls: Combined flows from these project ponds and contributing off-site basins are ultimately directed to the wetlands depression

area. At critical outfall locations, such as Design Point F22 (see Final Drainage Report Monument Ridge East – Filing No. 1) where flows are conveyed beneath County Line Road, energy dissipation features like riprap aprons are included to prevent scour. The project is designed to release approximately 68 cfs less during a 100-year event compared to existing conditions.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) number 0804C0065G and 0804C0276G dated December 7, 2018, no portion of Monument Ridge East lies within a designated 100 year floodplain. A copy of the FIRMette is provided in the Appendix.

9. Site Map

A site map is included in the form of engineered plans identifying the following:

- Construction site boundaries
- All areas of ground surface disturbance
- Areas used for storage
- Areas used for equipment
- Areas used for soil or waste
- Locations of all structural Control Measures
- Locations of non-structural Control Measures as applicable
- Locations of springs, streams, wetlands, and other surface waters.

10. Qualified Stormwater Manager Certification

The Qualified Stormwater Manager for the Project site will be Kelsey Crowder. The Qualified Stormwater Manager's duties include the following:

- Implement the SWMP;
- Oversee installation and maintenance of Control Measures as identified in the SWMP;
- Implement and oversee employee training;
- Conduct or provide for inspection and monitoring activities;
- Identify potential pollutant sources and make sure they are added to the plan;
- Identify any deficiencies in the SWMP and make sure they are corrected; and
- Ensure that any changes in construction plans, phasing, or use of Control Measures are addressed in the SWMP.

Specific Control Measures to be used on the Project site are identified in this SWMP. The Qualified Stormwater Manager will be responsible for documenting Control Measures (including phasing of Control Measures implementation).

11. Identification of Potential Pollution Sources

Construction activities produce many kinds of pollutants which may cause stormwater contamination. Grading and excavation activities remove ground cover, rocks, vegetation, and other erodible surfaces, resulting in the exposure of underlying soil (a pollutant) to the elements. These construction activities leave the soil surface unprotected. Soil or sand particles are more easily picked up by wind and washed away by rain or other water sources. Additional materials and activities at the project site that may have an impact on stormwater include the following:

1. All disturbed and stored soils - Ground-disturbing activities, such as excavation, utility installation, and backfill, have the potential to introduce sediment into the stormwater management system, including curb/flow lines and inlets. While exposed soils below grade and surrounded by asphalt or concrete are not anticipated to become a significant source of sediment in runoff, this potential is actively managed. Stored soils and their potential to become a pollutant are possible. Exposed/disturbed soil is a potential source of pollution for this project.

2. Vehicle tracking of sediment- Heavy equipment (i.e., excavators, haul trucks, loaders) will be used for this project and vehicle tracking is to be expected for this project site.

3. Management of contaminated soils- There is no anticipation of contaminated soils within this project area. If contaminated soils are encountered the SWMP will be amended to reflect how this would be addressed.

4. Loading and unloading operations- Construction materials will need to be loaded and unloaded at the site.

5. Outdoor storage activities (building materials, fertilizers, chemicals, etc.)- Construction building materials (pipe, fittings, etc.) will be stored outdoors at the project site.

6. Vehicle and equipment maintenance and fueling- All vehicle and equipment maintenance will take place off-site. Fueling will be done minimally onsite.

7. Significant dust or particulate generating processes- Dust from exposed soils is to be expected during construction activities.

8. Routine maintenance activities involving pesticides, detergents, fuels, solvents,soils, etc. - There are no routine maintenance activities involving pesticides, detergents, fuels, solvents, oils, etc. Should this be required, it will take place off site.

9. On-site waste management practices (waste piles, liquid wastes, dumpsters, etc.) - On-site waste management practices are potential pollution sources for this project. This includes non-industrial waste sources such as worker trash, portable toilets, disturbed and stored soils, vehicle tracking of sediment.

10. Dedicated asphalt and concrete batch plants- There will be no dedicated asphalt or concrete batch plants for this project.

11. Non-industrial waste sources such as worker trash and portable toilets- Worker trash and portable toilets will be a potential pollutant source for this project site.

12. Other areas or procedures where potential, spills can occur- None other are known at this time.

The on-site construction equipment, their vehicular traffic, fueling, and maintenance operations also present the potential for spills and leaks. These potential pollutants include hydraulic oil, engine grease, diesel fuel, gasoline, and anti-freeze (ethylene glycol).

Pollutants that result from clearing, grading, and excavation materials and have the potential to be present in stormwater runoff are listed in the table below. Potential sources of stormwater contamination are listed as well.

11.1 Potential Construction Site Stormwater Pollutants

Trade Name or Material	Chemical/Physical Description	Stormwater Pollutants
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates
Concrete	White solid	Limestone, sand

Trade Name or Material	Chemical/Physical Description	Stormwater Pollutants
Paints	Various colored liquid	Metal oxides, stoddard solvent, talc, calcium carbonate, arsenic
Wastewater from construction equipment washing	Water	Soil, oil & grease, solids
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)
Erosion	Solid Particles	Soil, Sediment

11.2 Locations of Potential Sources of Stormwater Contamination

Potential Stormwater Contamination	Potential Pollutants	Potential Problem
Construction site entrance	Soils/sediment,	Sediment load increased at storm sewer outfall and tracking of soil into the road through the construction site.
Cleared and Graded Areas	Hydraulic oil, gasoline, antifreeze, soil erosion, fertilizer	Leaking hydraulic oil and antifreeze from clearing and grading construction equipment. Gasoline and diesel fuel spills while fueling

Potential Stormwater Contamination	Potential Pollutants	Potential Problem
		construction equipment, and erosion of exposed and stockpiled soils. Asphalt chemicals can be released to stormwater if a rain event occurs before curing is complete.
Any undisturbed areas; Staging Areas	Hydraulic oil, gasoline, antifreeze, soil erosion, fertilizer, pesticides	Leaking hydraulic oil and antifreeze from clearing and grading construction equipment. Gasoline and diesel fuel spills while fueling construction equipment, and erosion of exposed and stockpiled soils. Asphalt chemicals can be released to stormwater if a rain event occurs before curing is complete. Tracking of soil into the road through the construction site entrance.

All waste materials will be collected and stored in a metal dumpster. All trash and construction debris from the site will be deposited in the dumpster. The contractor will be responsible for the handling of all waste materials on site. No construction materials will be buried on-site. Good housekeeping and spill control practices should be followed during construction to minimize stormwater contamination from petroleum products, fertilizers, paints, and concrete.

12. Control Measures (CMs) for Stormwater Pollution Prevention

12.1 Control Measures Overview

Control Measures encompass a wide range of erosion and sediment control practices, both structural and non-structural in nature, that are intended to reduce or eliminate any possible water quality impacts from stormwater leaving a construction site. The individual Control Measures appropriate for a construction site are largely dependent on the types of potential pollutant sources present, the nature of the construction activity, and specific-site conditions.

The Control Measures referenced herein are widely used in the construction industry. They generally involve a simple and low-cost approach and can be very effective when properly installed and maintained.

12.1.1 CMs for Disturbed Soil/Sediment

Ground disturbing activities associated with excavation and backfill at the project site have the potential to introduce sediment into the curb/flow line and inlets for existing stormwater management belonging to the municipal stormwater system. Excavation of soils will occur below grade reducing the risk of soil erosion, detachment, and sedimentation. Phasing for the project will minimize the amount of exposed soils at a given time. Disturbed areas will be kept to a minimum. Attempts will be made to close trenches prior to inclement weather, if feasible, and at the end of each day. Where consistent with safety and space considerations, excavated material will be placed on the upgradient side of trenches. Additionally, curb socks and inlet protection will be utilized as a CM treatment train to prevent sediment from the project site to impact the storm sewer. system. When possible, vegetative areas will be undisturbed, creating infiltration and buffer. Rock socks will be placed in the curb and gutter and inlet protection will be installed at every inlet within the immediate vicinity and within the vicinity in downgradient conditions.

Structural Control Measures (CMs) for Disturbed Soil/Sediment:

- Perimeter Silt Fence: During the Pre-Disturbance Stage, initial stormwater CMs will include the installation of perimeter silt fence prior to grading activities. Silt fences are also required along each side of the Vehicle Tracking Control (VTC). Sediment accumulation upstream of silt fences must be removed when it reaches 25% of the fence height, and they must be maintained in good operating condition.
- Inlet Protection (IP) and Curb Socks: Curb socks and inlet protection will be installed prior to any ground-disturbing activities and maintained throughout excavation, utility installation, backfill, and paving. They will be removed once the construction phase is complete and the pollutant source eliminated. Inlet protection must be maintained when there is significant sediment buildup and replaced if removed for public/vehicle safety.
- Temporary Sediment Basins (TSBs) / Permanent Extended Detention Basins (EDBs): The project features four private full-spectrum Extended Detention Basins (EDBs) (Pond 1, Pond 2, Pond 4, and Pond 5). These EDBs are designed to provide water quality capture volume (WQCV) and detention for stormwater runoff from various basins across the site. Given that the overall project disturbance area is 65 acres1, exceeding the 1-acre threshold that typically requires temporary sediment ponds per the El

Paso County Grading and Erosion Control Plan Submittal Checklist, these permanent EDBs will also serve as temporary sediment basins during the construction phases. Their design, which includes forebays and trickle channels, allows them to effectively capture and settle sediment from construction runoff. The "Final Drainage Report" relays that these ponds are designed to accommodate both proposed (developed) and future (Master Development Drainage Plan) conditions, implying their use during construction.

- Erosion Control Blanketing: Exposed slopes steeper than 4:1 will be covered by an erosion control blanket with mulching. Erosion control blanketing is a required measure on slopes steeper than 3:1.
- Stabilized Construction Site Entrance and Staging Areas: A stabilized construction site entrance will be constructed before clearing and grading begins. Stabilized staging areas, large enough to contain equipment, parking, storage, and loading/unloading operations, will also be constructed, consisting of a minimum 3 inches of angular granular material. While the linear nature of this project may minimize the need for a fixed vehicle tracking pad, inspection and sweeping will be performed daily.

Non-Structural Control Measures (CMs) for Disturbed Soil/Sediment:

- Phasing of Construction Activities: The project utilizes four main construction phases (Pre-Disturbance, Overlot Grading, Infrastructure/Building Construction, and Permanent Stabilization) to minimize stormwater and erosion impacts.
- Daily Trench Closure and Material Placement: Attempts will be made to close trenches prior to inclement weather and at the end of each day. Where consistent with safety and space, excavated material will be placed on the upgradient side of trenches.
- Minimizing Disturbed Areas: Overall, disturbed areas will be kept to a minimum. Pre-existing vegetation will be protected and maintained within 50 horizontal feet of waters of the state, unless infeasible.
- Temporary Stabilization of Stockpiles and Ceased Activities: Topsoil stockpiles will be stabilized with temporary seed and mulch within 14 days of the last construction activities in that area. Similarly, disturbed areas where ground-disturbing activity has temporarily ceased for more than 14 days will be temporarily stabilized.
- Dust Control: Wind erosion and dust control will be implemented by daily inspections and spraying dusty areas with water as needed, taking care not to cause muddying or off-site impacts.

- Street Sweeping and Off-site Tracking Control: Vehicle tracking of sediments off-site will be minimized. Inspection, sweeping, and necessary cleaning of tracking will be performed daily on public roads. Materials tracked off-site will be cleaned up and properly disposed of immediately.
- Good Housekeeping: All waste materials will be collected and stored in metal dumpsters, and the contractor is responsible for proper handling and disposal off-site in accordance with regulations. No construction debris or wastes will be buried, dumped, or discharged at the site.
- Soil Compaction Prevention: Compaction of soil will be prevented in areas where final stabilization will be achieved by vegetative cover.

12.1.2 CMs for Stored Materials

- Excavated Material Stockpiles: Stockpiles of excavated materials are generally not anticipated due to daily soil replacement back into excavated areas or immediate hauling off-site. Should it become necessary to create stockpiles of sedimentary materials, they will be located clear of any water flow paths and kept within the project boundary. Their size will be minimized through project phasing.
- Erosion Control: Erosion control devices, specifically silt fences, will be installed as needed around the base of any stockpiles to prevent the migration of soil.
- Temporary Stabilization: All soil stockpiles and other disturbed areas of the site where ground-disturbing construction activity has temporarily ceased for at least 14 days will be temporarily. This stabilization can involve methods such as temporary seeding and mulching. Areas that remain in an interim state for longer than 60 days also require stabilization.

12.1.3 CMs for Vehicle Tracking and Loading/Unloading

Inspection, sweeping, and any necessary cleaning of tracking will be performed daily while construction work continues.

- Vehicle Tracking Control: To minimize the tracking of sediment from disturbed areas onto public roads, stabilized construction site entrances (vehicle tracking control pads) will be implemented at all access points from the construction site . These entrances are designed to reduce off-site tracking of soils and construction debris.
- Daily Maintenance: Inspection, sweeping, and any necessary cleaning of tracking will be performed daily while construction work continues. Any materials tracked off-site must be cleaned up and properly disposed of immediately.

- Construction Traffic Access: All construction traffic must utilize approved construction access points for entry and exit from the site.
- Loading/Unloading Operations: Construction materials, such as pipe and fittings, will be loaded and unloaded at the site. These operations, along with vehicle and equipment maintenance and fueling, are identified as potential pollution sources due to the possibility of spills and leaks of substances like hydraulic oil, engine grease, diesel fuel, gasoline, and anti-freeze. Therefore, these activities will be managed carefully to minimize any pollutant contribution to stormwater runoff.

12.1.4 CMs for Dust

Wind erosion and dust control will be necessary to prevent sediment pollution. Daily inspections will occur for areas experiencing excessive winds, vehicle traffic, or precipitation events while the potential exists for fugitive dust. Water trucks will spray dusty areas on the project site as needed taking care not to impact adjacent properties or overwater causing muddying of the surface and sediment transportation. Water used for dust suppression may not be allowed to discharge off-site.

12.1.5 CMs for Construction Materials Storage

Outdoor storage of construction materials will be located clear of any water flow paths, within the project boundary, and within the work area. This area will move with the small area of disturbance daily and be cleaned of all debris and sediment daily. Fuel, grease, oil, paint, or any material classified as hazardous will be stored with secondary containment in the form of a utility trailer, approved containment system, or truck bed. A fuel truck or truck with fuel tank will be brought in daily for all equipment, to keep fuel storage onsite as minimal as possible. Subcontractors are responsible for hazardous waste removal back to their own facilities for ultimate transportation, storage, and disposal. All hazardous waste materials will be disposed of in. accordance with federal, state, and municipal regulations. All site wastes will be properly maintained to prevent potential pollution of State waters. There will be no on-site waste disposal.

12.1.6 CMs for Concrete Waste

- Concrete Washout Basins (CWAs):
    - Concrete Washout Basins (CWAs) will be installed and utilized on-site as a control measure for concrete waste. Locations are shown on the Grading and Erosion Control (GEC) Plan.
    - A sign will be placed at each washout area to clearly indicate the location for concrete truck and pump rig operators.
    - Excavated material may be used for perimeter berm construction around the CWA.

  - If there is a potential for high groundwater, the CWA must have an impervious liner.
  - The CWA will be repaired, enlarged, and/or cleaned out as necessary to maintain adequate capacity for wasted concrete.
  - All concrete or grout waste will be removed from the site and disposed of at an approved waste site as needed during and at the end of construction.
  - The Qualified Stormwater Manager is responsible for inspecting and maintaining the CWAs in good operating condition.

- Prohibited Discharges: All equipment and vehicles involved in concrete mixes are equipped with integral washout systems for onboard use. Concrete waste will not be dumped on-site, nor will concrete waste dumping or washing be permitted near or in any storm drainage line. This ensures that concrete washing activities do not contribute pollutants to stormwater runoff or receiving waters.

12.1.7 CMs for Non-Industrial Waste

Good house-keeping practices will be implemented to maintain a project site free of trash and debris. Trash receptacles will be inspected regularly to ensure they are disposed of properly when full and that debris stays contained within the receptacle. Worker sanitary services (portable toilets) will be contained within the construction material storage or staging area, out of the curb flow line, and anchored to prevent tipping. Portable toilets will be located a minimum of 10ft from stormwater inlets and 50ft from state waters. They will be secured at all four corners to prevent overturning and cleaned on a weekly basis. They will be inspected daily for spills. The area will be inspected regularly to ensure any waste stays contained. All site waste will be properly managed to prevent potential pollution of State waters. There will be no on-site waste disposal.

12.1.8 CMs for Equipment Staging and Maintenance

Potential pollutants from on-site construction equipment, vehicular traffic, fueling, and maintenance operations include hydraulic oil, engine grease, diesel fuel, gasoline, and anti-freeze. Store and maintain equipment in the designated work area. When possible, substitute non-hazardous or less hazardous materials. Use secondary containment, like a drain pan, to catch spills when working with fluids like oil, grease, and fuel. Use proper equipment like pumps and funnels when transferring these fluids. Transfer waste fluids, oil filters, etc. to designated waste drum immediately after maintenance or repairs. Inspect equipment routinely for leaks and spills. Repair or remedy these immediately.

The following control measures will be implemented:

- Fueling and Maintenance Activities: All vehicle and equipment maintenance will primarily take place off-site. On-site fueling will be minimized, with a fuel truck or truck with a fuel tank brought in daily to keep on-site fuel storage as low as possible.
- Material Storage and Secondary Containment: When construction materials (e.g., pipe, fittings) are stored outdoors, they will be located clear of any water flow paths, within the project boundary, and within the work area. Fuel, grease, oil, paint, or any material classified as hazardous will be stored with secondary containment. This secondary containment can be in the form of a utility trailer, approved containment system, or truck bed. For bulk storage of petroleum products or other liquid chemicals exceeding 55 gallons, adequate secondary containment is required to prevent spills from entering State Waters.
- Spill Prevention and Response: When working with fluids like oil, grease, and fuel, drip/drain pans will be used to catch spills, and proper equipment like pumps and funnels will be utilized for transferring these fluids. Waste fluids and oil filters will be transferred immediately to designated waste drums after maintenance or repairs.
- Inspection and Repair: Equipment will be routinely inspected for leaks and spills, and any identified issues will be repaired or remedied immediately.
- Waste Disposal: Contaminated soil resulting from spills or leaks will be removed using hand shovels and placed in approved receptacles, such as fuel/oil waste disposal drums. These contaminated materials and other site wastes will be disposed of off-site at an approved hazardous waste facility in accordance with federal, state, and municipal regulations. No on-site waste disposal is permitted. Good housekeeping practices will be implemented to keep the project site free of trash and debris.

12.1.9 CMs for Shallow Groundwater

Given the presence of shallow groundwater in some areas where ponds will be built on-site, specific permits may be required for discharging groundwater to a pond, as this is otherwise prohibited by CDPHE guidance. Therefore, any such permits will be obtained prior to construction.

12.2 Phasing of Control Measures

Installations of structural and non-structural Control Measures will be used for erosion control and stormwater management prior to commencement and during construction activities. The Operator/Permittee is committed to installing the Control Measures as listed, maintaining them as needed, and revising or adding to this plan as construction phasing or plans evolve.

i. <u>Control Measures Prior to Construction Commencement:</u>

Control measures will be applied prior to initial construction. Stabilized Staging Areas (SSA) will be constructed prior to any commencement. These areas are designated for construction equipment and vehicles, stockpiles (SP), waste bins, and other construction-related materials. A Stabilized Construction Site Entrance will be constructed before clearing and grading begins. Clearing and grading will not occur in an area until it is necessary for construction to proceed.

Vehicle Tracking Controls (VTC), Silt Fence (SF), and construction fence will be addressed and applied prior to active construction and should be removed upon completion of construction activities. Inlet Protection (IP) and Curb Inlet Protection (CIP) will be installed prior to any ground disturbing activities, remain in place, and maintained during excavation, utility installation, backfill, and paving. These Control Measures will require regular maintenance including sediment and debris removal when build-up is visible. To prevent any stormwater pollution due to curb flow conveyance, all storm drain inlets will need inlet protection.

ii. Control Measures During Construction:

Control Measures will be applied and maintained during the construction phase of the project. Inlet Protection (IP) and Curb Inlet Protection (CIP) will be installed as soon as drains have been installed, remain in place, and maintained during excavation, utility installation, backfill, and paving. They will be removed once the construction phase is completed in that area and the potential pollutant has been eliminated. These Control Measures will require regular maintenance including sediment and debris removal when build-up is visible. To prevent any stormwater pollution due to curb flow conveyance, all storm drain inlets will need inlet protection.

To prevent sediment pollution, wind erosion and dust control will be implemented. Daily inspections will occur for areas experiencing excessive winds, vehicle traffic, or precipitation events. Water trucks will spray dusty areas as needed, taking care not to impact adjacent properties or cause muddying that could lead to sediment transportation. Waste Management, including the proper handling of Portable Toilets (PT), will be a continuous effort. All equipment and vehicles involved in concrete mixes are equipped with integral washout systems for onboard use. Concrete waste will not be dumped on-site, and no concrete waste dumping or washing will be

permitted near or in any storm drainage line. Concrete Washout Areas (CWAs) will be installed and utilized on-site. Signs will be placed at each washout area, excavated material may be used for perimeter berm construction, and an impervious liner must be used if there is a potential for high groundwater. CWAs will be repaired, enlarged, or cleaned as necessary, and all concrete waste will be removed and disposed of at an approved waste site. The Qualified Stormwater Manager is responsible for inspecting and maintaining washout areas.

The Qualified Stormwater Manager will serve as the point of contact for any spills and will be responsible for implementing prevention practices, spill containment and cleanup, worker training, reporting, and SWMP updates. Secondary containment, such as a drip/drain pan, utility trailer, approved containment system, or truck bed, will be used to catch spills when working with fluids like oil, grease, and fuel. Proper equipment like pumps and funnels will be used for fluid transfer. Waste fluids and oil filters will be transferred immediately to designated waste drums after maintenance or repairs. Contaminated soil or surfaces from spills will be cleaned up, and contaminated materials will be disposed of off-site at an approved hazardous waste facility. Equipment will be routinely inspected for leaks and spills, and these will be repaired immediately. Bulk storage of petroleum products or other liquid chemicals exceeding 55 gallons will have adequate secondary containment. Non-hazardous spills require CDPHE notification within 24 hours, with a written report within 5 days. Hazardous spills require immediate 911 contact, then CDPHE notification within 24 hours, and a written report within 5 days.

For Soil Stabilization (SCL), exposed slopes greater than 4:1 will be covered by an erosion control blanket with mulching. Straw Wattles/Rock Socks, also referred to as "curb socks" and "rock socks," will be utilized as a CM treatment train to prevent sediment from impacting the storm sewer system. For Stockpile Protection (SP), while large stockpiles are not anticipated due to daily soil replacement or off-site hauling, if necessary, stockpiles of sedimentary materials will be located clear of any water flow paths, within the project boundary, and kept to a minimum size through phasing. Erosion control devices will be installed as needed around the base of stockpiles to prevent soil migration. Soil stockpiles and disturbed areas where construction temporarily ceases for at least 14 days will be temporarily stabilized.

Maintenance of Control Measures will be needed as previously stated. In addition to regularly scheduled inspections (at least once every 7 calendar days and within 24 hours of a significant precipitation or snowmelt event causing surface erosion), required maintenance, replacement, modifications, or cleaning of physical Control Measures will be completed proactively before stormwater pollution occurs. Any contaminants or pollutants cleaned and/or removed from installed CMs will be disposed of properly. Restoration activities will be completed throughout the project.

iii. Control Measures for Final Stabilization, Re-Vegetation, and Long-Term Stormwater Management:

Final Stabilization measures, upon completion of construction activities, where potential pollutants have been minimized, and once surfaces have been replaced to asphalt or concrete, will be initiated. Temporary Control Measures, including stabilized staging areas (SSA), vehicle tracking (VTC), silt fence (SF), construction fence, and inlet protection (IP/CIP), will be removed once Final Stabilization is achieved. The site will be stabilized by permanent surfaces (mainly concrete, asphalt, and seed/mulch), and good-housekeeping measures will be used to ensure a clean and complete project site.

The Control Measures will remain in the area of ground disturbance until 70% revegetation is achieved or a similar equivalent. Weeds do not count towards the 70% revegetation. Once construction activity ceases permanently in an area, the area will be stabilized with permanent seed and mulch. In areas where final stabilization will be achieved using vegetative cover, vegetative cover must be evenly distributed perennial vegetation and coverage will be, at a minimum, equal to 70% of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site. See approved landscape and irrigation plans by others, for planted trees, shrubs, ground cover, and irrigation.

Long-Term Stormwater Management (Permanent BMPs): Four private full-spectrum extended detention basins (EDBs) are proposed on-site. These EDBs serve as permanent post-construction control measures designed to control pollutants in stormwater discharges after construction is complete. The project's Post Construction Stormwater Management facilities will provide Water Quality Capture Volume (WQCV) and detention treatment, collecting and treating runoff from impervious areas of the site and

adjacent areas before discharging into a wetlands depression area. The EDBs are designed with forebays, maintenance access roads, concrete trickle channels, micropools, and outlet structures. They also include riprap emergency overflow spillways capable of draining 100-year peak flows if outlet structures become clogged, ensuring overflow is directed away from homes.

Inspections at Completed Areas Awaiting Final Stabilization: For areas or portions of the site where construction activities are complete and final stabilization measures are installed but final stabilization has not yet been achieved, the stormwater management system must be inspected at least once every 30 days. Post-storm event inspections are not required under this reduced schedule. This reduced inspection schedule is permissible if all ground-disturbing construction activities are complete and all activities required for final stabilization have been completed, with the exception of seed or sod application due to seasonal conditions or the necessity for additional application. The SWMP must be amended to locate these areas subject to the reduced inspection schedule.

12.3 Control Measures Maintenance

Visual inspections of all cleared and graded areas of the construction site will be performed on a minimum occurrence of once per week and/or within 24 hours of the end of any precipitation or snowmelt event that causes surface erosion. The first inspection shall occur within 7 days of construction commencement. The inspection will be the responsibility of the Qualified Stormwater Manager. An inspection report form has been provided in the Appendix. The inspection will verify that the structural Control Measures described in Section B of this SWMP are functioning properly, in good condition, up to date and minimize erosion. The inspection will also verify that the procedures used to prevent stormwater contamination from construction materials and petroleum products are effective. The following inspection and maintenance practices will be used to maintain erosion and sediment controls:

- Concrete Washout Area (CWA):
    - A sign shall be placed at each washout area to clearly indicate the location of the CWA/GWA to operators of concrete trucks and pump rigs.
    - Excavated material may be utilized in perimeter berm construction.
    - If there is a potential for high ground water, the CWA/GWA must have an impervious liner.
    - The CWA/GWA shall be repaired, enlarged, and/ or cleaned out as necessary to maintain capacity for wasted concrete.

  - As needed during construction and at the end of construction, all concrete or grout waste shall be removed from the site and disposed of at an approved waste site.
  - The Qualified Stormwater Manager shall inspect washout areas and maintain in good operating condition.
- Construction Fence (CF):
  - CM consisting of painted or flagged lath at approximately 100-foot spacing may be used to delineate the Limits of Construction, if approved by El Paso County.
  - Steel tee posts shall be utilized for support of construction fence as appropriate to site conditions.
  - The Qualified Stormwater Manager shall inspect CF/CM and maintain in good operating condition.
- Inlet Protection (IP):
  - Interim configuration of IP in streets (before paving) shall be installed immediately after pouring of the inlet and the concrete has taken initial set.
  - IP (after paving) shall be installed immediately after paving is placed.
  - Wire mesh shall be twisted into a mesh with a maximum opening of 1.0-inch (commonly termed "Chicken Wire").
  - Wire mesh shall be secured with wire ties at approximately 6-inch centers along all joints and at approximately 2-inch centers on ends of berm.
  - Crushed rock shall be fractured face (all sides) and shall comply with gradation shown on the GEC Plan - Standard Notes and Details (1-1/2" minus). Recycled concrete may not be used.
  - The top of reinforced rock berm shall allow for overtopping into the inlet.
  - No gaps shall exist between sections of reinforced rock berms or cinder block frames.
  - Tubular markers shall be placed on each end of IP located on streets where public access can occur.
  - Reinforced rock berm or cinder block ends shall be placed tightly against curb face.
  - IP is to remain in place until the upstream disturbed area is stabilized and grass cover approved, unless EL PASO COUNTY approves earlier removal of IP.
  - Maintain IP when there is evidence of significant sediment buildup.
  - Replace IP if removed for public/vehicle safety during a significant storm event, as approved by EL PASO COUNTY.
  - The Qualified Stormwater Manager shall inspect IP and ensure it is maintained in good operating condition. More frequent inspections and repairs may be necessary during winter plowing conditions.
- Seeding & Mulching (SM):

  - All areas to be seeded and mulched shall have native topsoil or appropriately conditioned soil spread to a depth of at least 6-inches (loose depth).
  - All disturbed areas shall be loosened (tilled) to a depth of 6-inches prior to spreading topsoil.
  - The top 6-inches of the seed bed shall be generally free of rocks, woody debris, and soil clods.
  - Stockpiles/areas that are being temporarily seeded do not require topsoil prior to seeding and mulching.
  - Seed shall be applied using a mechanical drill to a depth of not less than 1/4-inch and not more than 3/4- inch. Row spacing shall be no more than 6-inches. Material used for mulch shall consist of long-stemmed straw. At least 50-percent of the straw, by weight, shall be as long in length as possible. Mulch shall be applied and mechanically anchored to a depth of at least 3-inches at a rate of 4,000-pounds of straw/acre.
  - Copies of seed tickets shall be provided to the EL PASO COUNTY Inspector, upon request.
  - Temporary Irrigation is highly encouraged to assist with growth of vegetation.
  - Seeded and mulched areas shall be inspected for required coverage monthly, until the site reaches final acceptance. Repairs and re-seeding and mulching shall be undertaken for any areas failing to meet the required coverage until final acceptance. Required coverage is defined as 70% of the existing/ preconstruction condition, free of eroded areas, and free from infestation of weeds.
  - Tackifier shall be utilized to help with straw displacement.
- Silt Fence (SF):
  - The bottom portion of the SF shall be trenched in and compacted per the GEC Plan - Standard Notes and Detail. SF installation machines that use trenching or slicing may be utilized to install SF.
  - Sediment accumulated upstream of SF shall be removed when the upstream sediment reaches 25%.
  - SF near the roadway is the responsibility of the Permittee/Contractor to maintain, even if damaged from public snow removal operations.
  - The Qualified Stormwater Manager shall inspect SF and ensure it is maintained in good operating condition.
- Stabilized Staging Area (SSA):
  - SSA shall be large enough to contain equipment, parking, storage, and unloading and loading operations.
  - SSA shall consist of a minimum thickness of 3 inches of angular granular material.
  - The Qualified Stormwater Manager shall inspect the SSA and ensure it is maintained in good operating condition.

- Vehicle Tracking Control (VTC):
  - VTC shall be installed at every access point from the construction site.
  - VTC shall consist of hard, dense, durable stone, angular in shape and resistant to weathering. Rounded stone or boulders will not be acceptable. The stones shall not be smaller than 3-inches in size.
  - Curb ramps of any type are not allowed in the curb section.
  - VTC must be maintained whenever tracking is evident, or at the discretion of the EL PASO COUNTY Inspector.
  - Construction Fence (CF) will be required along each side of the VTC.
  - The Qualified Stormwater Manager shall inspect the VTC and ensure it is maintained in good operating condition.

The maintenance inspection report will be made after each inspection. A copy of the report forms to be completed by the Qualified Stormwater Manager is provided in the Appendix. Completed forms will be maintained on-site during the entire construction project. Following construction and the expiration or inactivation of the permit, the completed forms will be retained at the general contractor's office, for a minimum of 3 years.

13. Materials Handling and Spill Prevention

To minimize potential for procedures or significant materials to contribute pollutants to runoff the project site superintendent will act as the point of contact for any spill that occurs. They will be responsible for implementing prevention practices, spill containment and cleanup, worker training, reporting, and completing documentation and updating the SWMP if a spill occurs. The storage and handling of any construction materials will be managed according to company mandated procedures and policies and as detailed in the SWMP. These policies will be communicated to all contractors, subcontractors, and vendors for proper adherence. The potential for spill pollution occurs where materials are stored, from equipment leaks, maintenance, or fueling procedures, from waste materials, or other chemicals.

13.1 Spill Containment Methods

Should a spill occur from equipment in the form of fuel, grease, hydraulic oil, etc. the hazardous material will be contained within a secondary spill containment cell (drip/drain pan) and disposed of properly in an approved receptacle. Any undetected leak from equipment will be cleaned immediately upon detection. The contaminated soil from such a leak will be removed with hand shovels and placed in an approved receptacle (fuel/oil waste disposal drum). A leak or spill that occurs

on impervious surface (asphalt, concrete, rock, etc.) will be contained using fuel absorbent pads or absorbent litter and once allowed to absorb the spill will be removed to an approved fuel/oil waste disposal receptacle. These used spill materials and contaminated soils will be disposed of offsite at an approved hazardous waste facility. The material storage trailer will have a spill kit to be used for containment.

13.2 Spill Countermeasures

Should a hazardous spill occur, which may endanger health or the environment, cause pollution of the waters of the state, or may cause and exceedance of a water quality standard, the following procedures will take place:

- Stop the spill, unless it is too hazardous to do so or the spill involves any biohazards.
- Notify the Owner and/or the Owner's representative (Operator, Project Site Superintendent). The Owner or the Owner's representative will be onsite during the construction activities and will be able to respond immediately. Once the responsible parties have been notified, a determination will be made by the Owner or the Owner's representative whether the nature of the spill warrants the notification of additional authorities. As required by the Stormwater Discharges Associated with Construction Activity permit (Appendix I) the Colorado Department of Health and Environment will be notified by the following procedures for spills meeting the above criteria in 3.3.2.
- <u>For non-hazardous materials:</u> Contact CDPHE Environmental Emergency Spill Reporting Line (1-877-518-5608) within 24 hours of the spill event. A written notification to CDPHE is also required within 5 days.
- <u>For hazardous materials:</u> Contact local emergency response team by calling 911. Then Contact the CDPHE Environmental Emergency Spill Reporting Line (1-877-518-5608) within 24 hours of the spill event. A written notification to CDPHE is also required within 5 days.

Advance preparations will be initiated by the permittee to ensure a prompt and effective response to any spills. These preparations include an action plan to stop/control further leakage, containment of the spill with absorbent materials, or an earthen berm, and clean up and removal of residual pollutants and contaminated materials.

14. Final Stabilization Procedure

Before scheduling a Final inspection, while waiting for vegetation to establish, Permittee(s) shall complete the following inspections and maintenance operations:

1. Fill any eroded rills and gullies with topsoil prior to any reseeding
2. Ensure all disturbed areas are seeded and mulched according to the City Stormwater Construction Manual.
3. Inspect seeded and mulched areas, as well as stormwater management system, at least once every 30-days. If repairs are needed, reseed and re-mulch/blanket the site as needed or as recommended by the County Stormwater Inspector for areas failing to mee the required coverage.
4. Control weeds in a manner acceptable to the County Stormwater Inspector.

In addition, County Stormwater Inspectors will make periodic inspections of the revegetation area and stormwater management system. The frequency may be evaluated and adjusted by El Paso County. Weeds do not count towards the 70% cover for Final Stabilization. See landscape plan for specifics of Final Stabilization procedure for Monument Ridge East.

15. Project site control measures inspections, Maintenance, and Record-keeping

15.1 initial-Inspections

Inspections of the project site will be conducted as required by the Colorado Department of Public Health and Environment (CDPHE) - Water Quality Control Division permit, Stormwater Discharges Associated with Construction Activity. This permit will be the guiding document for field and administrative requirements during the life of the permit for this project. Therefore, the permittee or the permittee's representative will execute the required inspections of site conditions and installed Control Measures for impact and/or required maintenance. The SWMP is a living document and will be updated and revised, when necessary, including documentation of inspections. Inspections will occur at least every 7 calendar days and within 24 hours of a significant storm event and conducted as follows:

- All disturbed areas will be inspected for any existing or potential for erosion or transportation of sediment across or off the project site. All access points will be inspected for off-site tracking.
- All physical Control Measures will be inspected to ensure they are installed as detailed in the SWMP and effective in their quantity, size, and location. They will additionally be inspected to determine

whether maintenance, repairs, cleaning, replacement, or modifications are needed.

- All site inlets and outlets and/or discharge points will be inspected for evidence of blockages, sediment buildup, and contaminating pollutants.
- All materials handling, storage, waste areas, and equipment will be inspected for evidence of leaks, spills, containment, or procedure adherence, and/or contamination.
- Updating and revising of this SWMP will be assessed and applied collaborating with changing site conditions and construction phases.
- A written report will be generated documenting the inspection, findings, and necessary actions.

15.2 Self-Inspections (must include the Qualified Stormwater Manager's signature)

The Qualified Stormwater Manager is required to conduct self-inspections. The purpose of these inspections is to ensure that all Control Measures are installed according to the approved plans, appropriate as to the intended use, operating effectively, and being properly maintained. The Qualified Stormwater Manager must be qualified according to Chapter 2, Section 5.0.

The Qualified Stormwater Manager shall, at a minimum, make a thorough inspection at least once every 7 calendar days. Also, post-storm event inspections must be conducted within 24 hours following the end of any precipitation or snowmelt event that causes surface erosion. Provided the timing is appropriate, the post-storm inspections may be used to fulfill the 14-day routine inspection requirement. Alternatively, the Qualified Stormwater Manager may choose to perform self-inspections every 7 calendar days and forego post-storm event inspections. The self-inspection schedule must be identified in the Qualified Stormwater Manager's most recent self-inspection. A more frequent inspection schedule than the minimum described may be necessary to ensure that Control Measures continue to operate as needed to comply with the GEC Plan. Site conditions such as steep grades and close proximity to a state water are reasons for increasing the frequency of self-inspections.

The self-inspections must also be available either physically or electronically at the construction site at all times throughout the duration of the project. County Stormwater Inspectors will review self-inspections during County compliance inspections. The use of a third-party inspection program does not remove this requirement. Additionally, the use of a third-party inspection program does not relieve the Permittee of the requirement to comply with all compliance inspections.

For sites or portions of sites where construction activities have been completed and final stabilization measures installed but final stabilization has not yet been achieved, the Qualified Stormwater Manager shall make a thorough inspection of

their Control Measures at least once every 30-days. Post-storm event inspections must be conducted within 72 hours following the end of any precipitation or snowmelt event that causes surface erosion. The GEC Plan must be amended to indicate those areas where construction activities have been completed but final stabilization has not yet been achieved that will be inspected once every 30-days.

The Permittee is responsible for confirming that the frequency of inspections is sufficient to ensure that Control Measures remain in good working condition at all times.

15.3 CM Maintenance Procedures

In addition to regularly scheduled inspections, required maintenance, replacement, modifications, or cleaning of physical Control Measures will be completed proactively before stormwater pollution occurs. Any contaminants or pollutants that are cleaned and/or removed from installed Control Measures features will be disposed of properly.

15.4 Record Keeping Procedures

The Qualified Stormwater Manager shall amend the SWMP when there is a change in design, construction, change in sources of pollutants, O&M of the site which would require the implementation of new or revised CMs or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in SW discharges associated with construction activity or when CMs are no longer necessary and are removed. SWMP amendments or updates must include a notation in the SWMP identifying the date and description of the change. Methods for notation may include notations on the site map (i.e. GEC Plan), a log of changes, redline changes in the SWMP, or other measures.

The SWMP self-inspection reports and GEC Plan are to be available to the County Stormwater Inspector on-site or electronically throughout the duration of the project. The documents may be kept electronically if the SWMP is immediately accessible to the inspector during an inspection to the same extent as a paper copy stored at the site would be.

This Stormwater Management Plan is a living document and will be developed, implemented, maintained, and revised as construction progresses at this project site from Pre-construction to Final Stabilization. An on-site log in this SWMP will be maintained with records of inspections, maintenance activities, spills leaks or illicit discharges, training and any other known documents affecting stormwater management or erosion control for this project site.

16. References

1. Stormwater Construction Manual, City of Colorado Springs, Dec 2020.

2. FEMA Flood Insurance Rate Map Number 08041C0065G and 0804C0276G, El Paso County, Colorado, Revised December 7, 2018
3. Natural Resources Conservation Service (NRCS), Web Soil Survey, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx
4. Colorado Discharge Permit System (CDPS) General Permit, COR400000 Guidance for Achieving Final Stabilization, Revised March 2024
5. Final Drainage Report Monument Ridge East – Filing No. 1, April 2, 2025
6. Colorado Department of Public Health and Environment Water Quality Control Division, CDPS General Permit.
7. El Paso County Stormwater Management Plan Checklist, Revised: October 2021

Appendix

Stormwater Management Plan Inspection and Maintenance Log

Monument Ridge East, Phase 1

This log is designed to record all inspections, observations, maintenance activities, and corrective actions taken in accordance with Permit No. COR400000, Part I.D.5.c. This also includes any training received by Contractor personnel regarding erosion control and materials handling, and records of inspections by outside agencies. All entries must comply with Part II.O. and be signed as per Part I.A.3.f.

Stormwater Inspection Report Template

Facility Name		Permittee	
Date of Inspection		Weather Conditions	
Permit Certification #		Disturbed Acreage	
Phase of Construction		Inspector Title	
Inspector Name			

Is the above inspector a qualified stormwater manager? (permittee is responsible for ensuring that the inspector is a qualified stormwater manager)	YES	NO
	☐	☐

INSPECTION FREQUENCY

Check the box that describes the minimum inspection frequency utilized when conducting each inspection

At least one inspection every 7 calendar days	☐
At least one inspection every 14 calendar days, with post-storm event inspections conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosions	☐
● This is a post-storm event inspection. Event Date: _____	☐
Reduced inspection frequency - Include site conditions that warrant reduced inspection frequency	☐
● Post-storm inspections at temporarily idle sites	☐
● Inspections at completed sites/area	☐
● Winter conditions exclusion	☐

Have there been any deviations from the minimum inspection schedule? If yes, describe below.	YES	NO
	☐	☐

INSPECTION REQUIREMENTS*

i. Visually verify whether all implemented control measures are in effective operational condition and are working as designed in the specifications to minimize pollutant discharges

   a. Assess the adequacy of control measures for pumped stormwater (e.g. sediment plume, suspended solids, unusual color, decreased clarity, presence of odor or foam, etc).

ii. Determine if there are new potential sources of pollutants

iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges

iv. Identify all areas of non-compliance with the permit requirements, and if necessary, implement corrective action(s) in accordance with Part I.B.1.c.

*Use the attached **Control Measures Requiring Routine Maintenance** and **Inadequate Control Measures Requiring Corrective Action** forms to document results of this assessment that trigger either maintenance or corrective actions

AREAS TO BE INSPECTED

Is there evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters at the following locations?

	NO	YES	If "YES" describe discharge or potential for discharge below. Document related maintenance, inadequate control measures and corrective actions **Inadequate Control Measures Requiring Corrective Action** form
Construction site perimeter	☐	☐	
All disturbed areas, including areas that are temporarily stabilized	☐	☐	
Designated haul routes	☐	☐	
Material and waste storage areas exposed to precipitation	☐	☐	
Locations of pumped stormwater	☐	☐	

Locations where stormwater has the potential to discharge offsite, including visible erosion and sedimentation	☐	☐	
Locations where vehicles exit the site	☐	☐	
Locations of installed control measures	☐	☐	

CONTROL MEASURES REQUIRING ROUTINE MAINTENANCE

Definition: Any control measure that is still operating in accordance with its design and the requirements of the permit, but requires maintenance to prevent a breach of the control measure. These items are not subject to the corrective action requirements as specified in Part I.B.1.c of the permit.

Are there control measures requiring routine maintenance?	NO	YES	
	☐	☐	If "YES" document below

Date Observed	Location	Control Measure	Routine Maintenance Required	Date Completed

INADEQUATE CONTROL MEASURES REQUIRING CORRECTIVE ACTION

Definition: Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. This includes control measures that have not been implemented for pollutant sources. If it is infeasible to install or repair the control measure immediately after discovering the deficiency the reason must be documented and a schedule included to return the control measure to effective operating condition as possible.

	NO	YES	
Are there inadequate control measures requiring corrective action?	☐	☐	If "YES" document below

	NO	YES	
Are there additional control measures needed that were not in place at the time of inspection?	☐	☐	If "YES" document below

Date Discovered	Location	Description of Inadequate Control Measure	Description of Corrective Action	Was deficiency corrected when discovered? YES/NO if "NO" provide reason and schedule to correct	Date Corrected

INADEQUATE CONTROL MEASURES REQUIRING CORRECTIVE ACTION

Definition: Any control measure that is not designed or implemented in accordance with the requirements of the permit and/or any control measure that is not implemented to operate in accordance with its design. This includes control measures that have not been implemented for pollutant sources. If it is infeasible to install or repair the control measure immediately after discovering the deficiency the reason must be documented and a schedule included to return the control measure to effective operating condition as possible.

REPORTING REQUIREMENTS

The permittee shall report the following circumstances on the division's submission form within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall submit to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances.

All Noncompliance Requiring 24-Hour Notification per Part II.L.7 of the Permit

a. Endangerment to Health or the Environment

Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident (See Part II.L.7.a.i of the Permit)

This category would primarily result from the discharge of pollutants in violation of the permit

b. Numeric Effluent Limit Violations

- Circumstances leading to any unanticipated bypass which exceeds any effluent limitations (See Part II.L.6.a.ii of the Permit)
- Circumstances leading to any upset which causes an exceedance of any effluent limitation (See Part II.L.6.a.iii of the Permit)
- Daily maximum violations (See Part II.L.6.a.iv of the Permit)

Numeric effluent limits are very uncommon in certifications under the COR400000 general permit. This category of noncompliance only applies if numeric effluent limits are included in a permit certification.

	NO	YES	
Has there been an incident of noncompliance requiring 24-hour notification?	☐	☐	If "YES" document below

Date and Time of Incident	Location	Description of Noncompliance	Description of Corrective Action	Date and Time of 24 Hour Notification	Date of 5 Day Written Notification *

*Attach copy of 5 day written notification to report. Indicate if written notification was waived, including the name of the division personnel who granted waiver.

"I verify that, to the best of my knowledge and belief, that if any corrective action items were identified during the inspection, those corrective actions are complete, and the site is currently in compliance with the permit"

_____ _____

Name of Qualified Stormwater Manager Title of Qualified Stormwater Manager

_____ _____

Signature of Qualified Stormwater Manager Date

Notes/Comments

NRCS – Soils Survey

United States Department of Agriculture

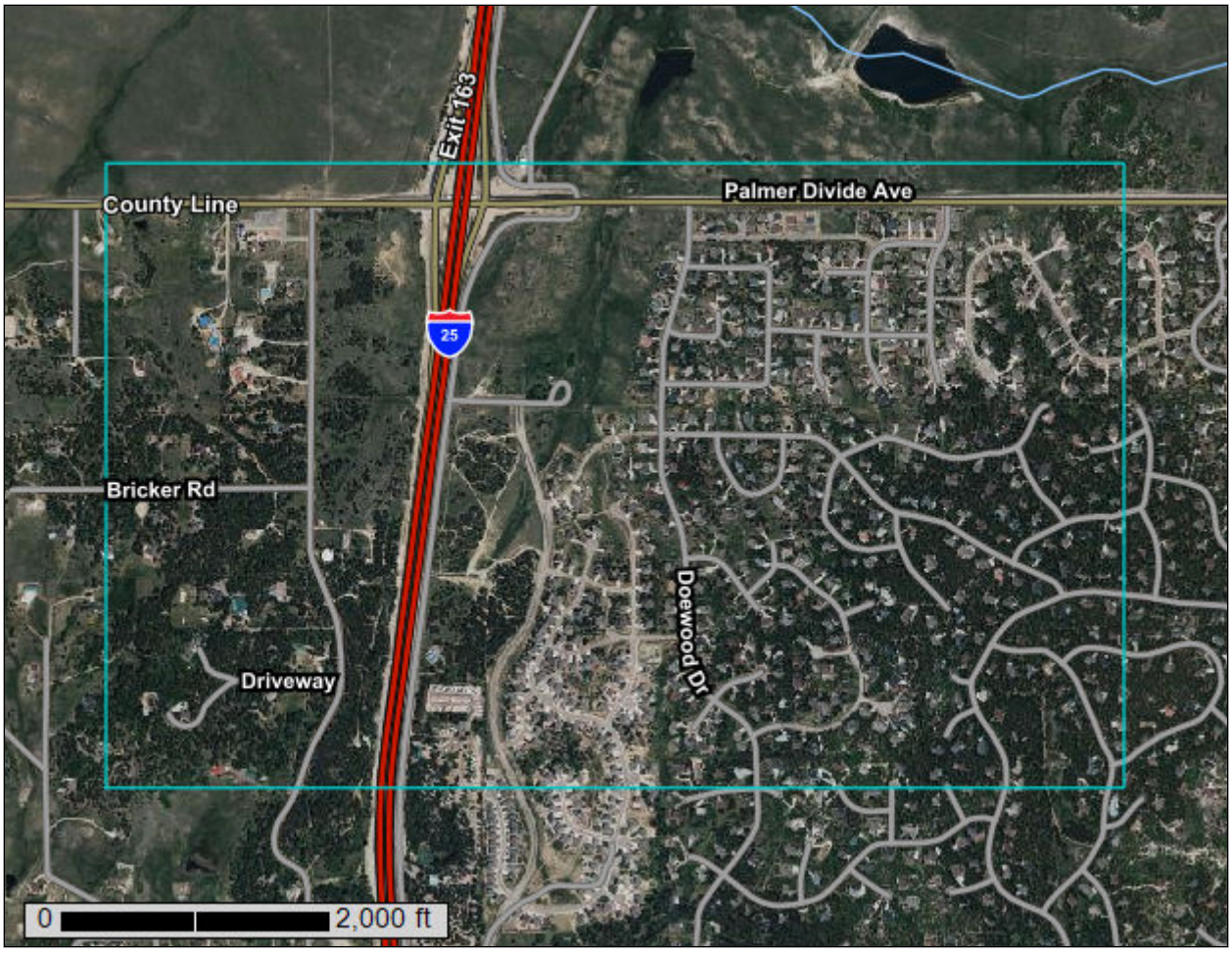
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Castle Rock Area, Colorado, and El Paso County Area, Colorado

Monument Ridge East



January 15, 2023

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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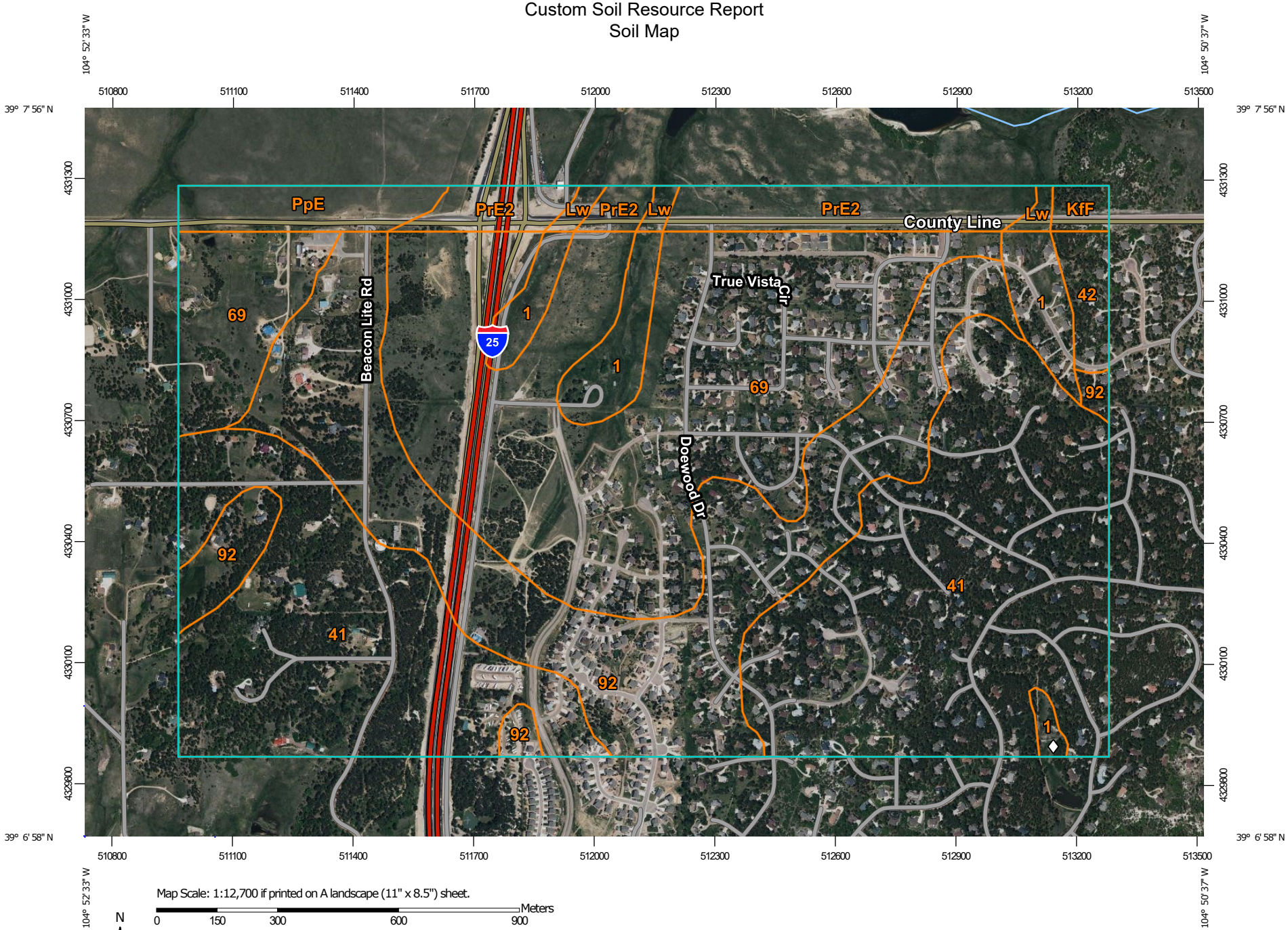
Contents

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:12,700 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 150 300 600 900

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:20,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Castle Rock Area, Colorado
Survey Area Data: Version 15, Sep 1, 2022

Soil Survey Area: El Paso County Area, Colorado
Survey Area Data: Version 20, Sep 2, 2022

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 9, 2021—Jun 12, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KfF	Kettle-Falcon complex, 9 to 65 percent slopes	4.0	0.5%
Lw	Loamy wet alluvial land	5.3	0.6%
PpE	Peyton-Pring-Crowfoot sandy loams, 5 to 25 percent slopes	17.5	2.1%
PrE2	Peyton-Pring-Crowfoot complex, 3 to 15 percent slopes, eroded	38.5	4.7%
Subtotals for Soil Survey Area		**65.2**	**8.0%**
Totals for Area of Interest		**813.1**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Alamosa loam, 1 to 3 percent slopes	35.2	4.3%
41	Kettle gravelly loamy sand, 8 to 40 percent slopes	285.9	35.2%
42	Kettle-Rock outcrop complex	9.1	1.1%
69	Peyton-Pring complex, 8 to 15 percent slopes	245.8	30.2%
92	Tomah-Crowfoot loamy sands, 3 to 8 percent slopes	171.9	21.1%
Subtotals for Soil Survey Area		**747.9**	**92.0%**
Totals for Area of Interest		**813.1**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion

of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Castle Rock Area, Colorado

KfF—Kettle-Falcon complex, 9 to 65 percent slopes

Map Unit Setting

National map unit symbol: jqz2
Elevation: 6,600 to 8,000 feet
Mean annual precipitation: 17 to 21 inches
Mean annual air temperature: 45 to 47 degrees F
Frost-free period: 115 to 125 days
Farmland classification: Not prime farmland

Map Unit Composition

Kettle and similar soils: 50 percent
Falcon and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kettle

Setting

Landform: Hills, ridges
Landform position (three-dimensional): Side slope, base slope, crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Locally transported sandy alluvium derived from arkose

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
H1 - 1 to 10 inches: loamy sand
H2 - 10 to 18 inches: sand
H3 - 18 to 60 inches: gravelly loamy coarse sand

Properties and qualities

Slope: 9 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High to very high (2.00 to 20.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: F048AY925CO - Ponderosa Pine Forest
Hydric soil rating: No

Description of Falcon

Setting

Landform: Cliffs
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from arkosic sandstone and/or conglomerate

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
H1 - 1 to 8 inches: sandy loam
H2 - 8 to 15 inches: gravelly sandy loam
H3 - 15 to 18 inches: unweathered bedrock

Properties and qualities

Slope: 25 to 65 percent
Depth to restrictive feature: 4 to 20 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: F048AY925CO - Ponderosa Pine Forest
Hydric soil rating: No

Minor Components

Rock outcrop

Percent of map unit: 7 percent
Hydric soil rating: No

Pring

Percent of map unit: 7 percent
Hydric soil rating: No

Aquic haploborolls

Percent of map unit: 1 percent
Landform: Swales
Hydric soil rating: Yes

Lw—Loamy wet alluvial land

Map Unit Setting

National map unit symbol: jqzd
Elevation: 7,000 to 8,000 feet
Mean annual precipitation: 17 to 19 inches
Mean annual air temperature: 44 to 46 degrees F
Frost-free period: 115 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Loamy wet alluvial land: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Loamy Wet Alluvial Land

Setting

Landform: Drainageways, swales, flood plains
Down-slope shape: Linear
Across-slope shape: Linear

Typical profile

H1 - 0 to 20 inches: sandy loam
H2 - 20 to 60 inches: stratified sand to clay

Properties and qualities

Slope: 1 to 5 percent
Drainage class: Poorly drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 6.00 in/hr)
Depth to water table: About 0 to 24 inches
Frequency of flooding: FrequentNone
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Very slightly saline to moderately saline (2.0 to 8.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 6.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Sandy wet alluvial land
Percent of map unit: 14 percent
Hydric soil rating: No

Fluvaquentic haplaquolls
Percent of map unit: 1 percent
Landform: Sloughs
Hydric soil rating: Yes

PpE—Peyton-Pring-Crowfoot sandy loams, 5 to 25 percent slopes

Map Unit Setting
National map unit symbol: jqzn
Elevation: 6,500 to 8,000 feet
Mean annual precipitation: 15 to 18 inches
Mean annual air temperature: 44 to 46 degrees F
Frost-free period: 115 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition
Peyton and similar soils: 40 percent
Pring and similar soils: 25 percent
Crowfoot and similar soils: 25 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Peyton

Setting
Landform: Valley sides, ridges
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Weathered alluvium derived from arkose

Typical profile
H1 - 0 to 11 inches: sandy loam
H2 - 11 to 30 inches: sandy clay loam
H3 - 30 to 40 inches: sandy loam
H4 - 40 to 60 inches: sandy loam

Properties and qualities
Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches

Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

Description of Pring

Setting

Landform: Hills
Landform position (three-dimensional): Crest, base slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from arkosic sedimentary rock

Typical profile

H1 - 0 to 12 inches: sandy loam
H2 - 12 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 5 to 25 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

Description of Crowfoot

Setting

Landform: Valley sides, ridges
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from arkosic sedimentary rock

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 19 inches: loamy sand
H3 - 19 to 32 inches: gravelly sandy clay loam
H4 - 32 to 43 inches: gravelly sandy loam
H5 - 43 to 60 inches: coarse sand

Properties and qualities

Slope: 5 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R049XY216CO - Sandy Divide
Hydric soil rating: No

Minor Components

Brussett

Percent of map unit: 3 percent
Hydric soil rating: No

Jarre

Percent of map unit: 3 percent
Hydric soil rating: No

Tomah

Percent of map unit: 3 percent
Hydric soil rating: No

Aquic haploborolls

Percent of map unit: 1 percent
Landform: Swales
Hydric soil rating: Yes

PrE2—Peyton-Pring-Crowfoot complex, 3 to 15 percent slopes, eroded

Map Unit Setting

National map unit symbol: jqzp
Elevation: 6,500 to 8,000 feet
Mean annual precipitation: 15 to 18 inches
Mean annual air temperature: 44 to 46 degrees F
Frost-free period: 115 to 120 days
Farmland classification: Not prime farmland

Map Unit Composition

Peyton, eroded, and similar soils: 40 percent
Pring, eroded, and similar soils: 25 percent
Crowfoot, eroded, and similar soils: 20 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Peyton, Eroded

Setting

Landform: Plateaus, mesas
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Weathered alluvium derived from arkose

Typical profile

H1 - 0 to 11 inches: sandy loam
H2 - 11 to 30 inches: sandy clay loam
H3 - 30 to 40 inches: sandy loam
H4 - 40 to 60 inches: sandy loam

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R049XY216CO - Sandy Divide
Hydric soil rating: No

Description of Pring, Eroded

Setting

Landform: Plateaus, mesas
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from arkosic sedimentary rock

Typical profile

H1 - 0 to 12 inches: gravelly sandy loam
H2 - 12 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

Description of Crowfoot, Eroded

Setting

Landform: Plateaus, mesas
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from arkosic sedimentary rock

Typical profile

H1 - 0 to 6 inches: sandy loam
H2 - 6 to 19 inches: loamy sand
H3 - 19 to 32 inches: gravelly sandy clay loam
H4 - 32 to 43 inches: gravelly sandy loam
H5 - 43 to 60 inches: coarse sand

Properties and qualities

Slope: 3 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R049XY216CO - Sandy Divide
Hydric soil rating: No

Minor Components

Kippen

Percent of map unit: 8 percent
Hydric soil rating: No

Truckton

Percent of map unit: 7 percent
Hydric soil rating: No

El Paso County Area, Colorado

1—Alamosa loam, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 3670
Elevation: 7,200 to 7,700 feet
Farmland classification: Prime farmland if irrigated and reclaimed of excess salts and sodium

Map Unit Composition

Alamosa and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Alamosa

Setting

Landform: Fans, flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 6 inches: loam
Bt - 6 to 14 inches: clay loam
Btk - 14 to 33 inches: clay loam
Cg1 - 33 to 53 inches: sandy clay loam
Cg2 - 53 to 60 inches: sandy loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: About 12 to 18 inches
Frequency of flooding: NoneFrequent
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Very slightly saline to strongly saline (2.0 to 16.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 5w
Hydrologic Soil Group: D
Ecological site: R048AY241CO - Mountain Meadow
Hydric soil rating: Yes

Minor Components

Other soils

Percent of map unit:
Hydric soil rating: No

41—Kettle gravelly loamy sand, 8 to 40 percent slopes

Map Unit Setting

National map unit symbol: 368h
Elevation: 7,000 to 7,700 feet
Farmland classification: Not prime farmland

Map Unit Composition

Kettle and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kettle

Setting

Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy alluvium derived from arkose

Typical profile

E - 0 to 16 inches: gravelly loamy sand
Bt - 16 to 40 inches: gravelly sandy loam
C - 40 to 60 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 8 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: F048AY908CO - Mixed Conifer
Hydric soil rating: No

Minor Components

Other soils

Percent of map unit:
Hydric soil rating: No

Pleasant

Percent of map unit:
Landform: Depressions
Hydric soil rating: Yes

42—Kettle-Rock outcrop complex

Map Unit Setting

National map unit symbol: 368j
Elevation: 6,800 to 7,700 feet
Frost-free period: 110 to 130 days
Farmland classification: Not prime farmland

Map Unit Composition

Kettle and similar soils: 60 percent
Rock outcrop: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kettle

Setting

Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Sandy alluvium derived from arkose

Typical profile

E - 0 to 16 inches: gravelly loamy sand
Bt - 16 to 40 inches: gravelly sandy loam
C - 40 to 60 inches: extremely gravelly loamy sand

Properties and qualities

Slope: 8 to 40 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: F048AY908CO - Mixed Conifer
Hydric soil rating: No

Description of Rock Outcrop

Typical profile

R - 0 to 60 inches: unweathered bedrock

Properties and qualities

Slope: 8 to 60 percent
Depth to restrictive feature: 0 inches to lithic bedrock
Available water supply, 0 to 60 inches: Very low (about 0.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Other soils

Percent of map unit:
Hydric soil rating: No

69—Peyton-Pring complex, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 369g
Elevation: 6,800 to 7,600 feet
Farmland classification: Not prime farmland

Map Unit Composition

Peyton and similar soils: 40 percent
Pring and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Peyton

Setting

Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Arkosic alluvium derived from sedimentary rock and/or arkosic residuum weathered from sedimentary rock

Typical profile

A - 0 to 12 inches: sandy loam
Bt - 12 to 25 inches: sandy clay loam
BC - 25 to 35 inches: sandy clay loam
C - 35 to 60 inches: sandy loam

Properties and qualities

Slope: 8 to 9 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: R049XY216CO - Sandy Divide
Hydric soil rating: No

Description of Pring

Setting

Landform: Hills
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Arkosic alluvium derived from sedimentary rock

Typical profile

A - 0 to 14 inches: coarse sandy loam
C - 14 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 6.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R048AY222CO - Loamy Park
Hydric soil rating: No

Minor Components

Other soils

Percent of map unit:
Hydric soil rating: No

Pleasant

Percent of map unit:
Landform: Depressions
Hydric soil rating: Yes

92—Tomah-Crowfoot loamy sands, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 36b9
Elevation: 7,300 to 7,600 feet
Farmland classification: Not prime farmland

Map Unit Composition

Tomah and similar soils: 50 percent
Crowfoot and similar soils: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tomah

Setting

Landform: Alluvial fans, hills
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from arkose and/or residuum weathered from arkose

Typical profile

A - 0 to 10 inches: loamy sand
E - 10 to 22 inches: coarse sand
Bt - 22 to 48 inches: stratified coarse sand to sandy clay loam
C - 48 to 60 inches: coarse sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B

Ecological site: R049XY216CO - Sandy Divide
Hydric soil rating: No

Description of Crowfoot

Setting

Landform: Hills, alluvial fans
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 12 inches: loamy sand
E - 12 to 23 inches: sand
Bt - 23 to 36 inches: sandy clay loam
C - 36 to 60 inches: coarse sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Ecological site: R049XY216CO - Sandy Divide
Hydric soil rating: No

Minor Components

Other soils

Percent of map unit:
Hydric soil rating: No

Pleasant

Percent of map unit:
Landform: Depressions
Hydric soil rating: Yes

FEMA – Floodplain Map

National Flood Hazard Layer FIRMette

FEMA

104°51'58"W 39°7'50"N

0 250 500 1,000 1,500 2,000 Feet 1:6,000

104°51'21"W 39°7'23"N

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/18/2023 at 3:52 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

104°51'59"W 39°7'38"N

104°51'22"W 39°7'10"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
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- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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CDPS General Permit COR4000000 Certification and Copy of General Permit

Erosion and Stormwater Quality Control Permit (ESQCP) Stormwater Permit Form

2880 International Circle, Suite 110
Colorado Springs, CO 80910
Phone: 719-520-6300
Email: Stormwater@elpasoco.com
publicworks.elpasoco.com/stormwater/

Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: SF2514_____

There are multiple Stormwater Permits. Please refer to Engineering Criteria Manual (ECM) Appendix I to determine which permit is applicable to your project.

This form initially acts as the permit application. Only once this form has been signed & approved, all other required documents have been submitted & approved, and the Notice to Proceed has been issued, does this form become an active permit.

Part I. Property Owner or Authorized Representative (Co-Permit Holder)	
Company/Organization	Monument Ridge East, LLC
Name or Name of Representative	David J Whitehead, P.E.
Title	Project Manager
Physical Address (not PO Box)	
Street Number and Street Name	5055 List Drive
City, State, Zip Code	Colorado Springs, CO 80919
Mailing Address (if differs from above)	
Street Number and Street Name	
City, State, Zip Code	
Phone Number - Office	(719) 237-4411
Phone Number - Cell	(719) 237-4411
Email Address	david@whiteheadengineering.com

Part II. Contractor/Operator (Co-Permit Holder)*	
Company/Organization	NB Trenchless
Name or Name of Representative	Norbie Larsen
Title	President
Physical Address (not PO Box)	
Street Number and Street Name	104 S. Cascade Ave. Suite 214
City, State, Zip Code	Colorado Springs, CO 80903
Mailing Address (if differs from above)	
Street Number and Street Name	
City, State, Zip Code	
Phone Number - Office	(719) 291-2472
Phone Number - Cell	(719) 291-2472
Email Address	nbt.nml@gmail.com

*This section can be left blank through design review but must be filled in no later than at the Pre-Con Meeting.

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EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: SF2514_____

Part III. Qualified Stormwater Manager (QSM)*	
Company/Organization	Elkhorn Enviro
Name	Kelsey Crowder
Phone Number - Office	(719) 250-7780
Phone Number - Cell	(719) 250-7780
Email Address	Elkhornenviro@gmail.com

*This section can be left blank through design review but must be filled in no later than at the Pre-Con Meeting.

Part IV. Project Information	
Project Name	Monument Ridge East Filing 1
Address (or nearest major cross streets)	Misty Acres Boulevard and County Line Road
Acreage	Total: 65 acres Proposed Disturbance: 34 acres
Description of Project	The Project is a single-family development. The project will consist of single-family homes and associated site elements typical of residential
Schedule (input estimated month or season)	Start of Construction: September 2025 Completion of Construction: June 2026 Final Stabilization: September 2026

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Stormwater Permit Number: ESQ_____

EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: SF2514_____

REQUIRED SUBMISSIONS

See ECM Appendix I for the documentation required to be submitted, reviewed, and approved in conjunction with this Stormwater Permit Form.

RESPONSIBILITY FOR DAMAGE

The County and its officers and employees, including but not limited to the ECM Administrator, shall not be answerable or accountable in any manner for damage to property or for injury to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), or persons acting on behalf of the Permit Holder(s), from any cause. The Permit Holder(s) shall be responsible for any liability imposed by law and for damage to property or injuries to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), and persons acting on behalf of the Permit Holder(s), arising out of work or other activity permitted and done under a permit, or arising out of the failure to perform the obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit.

The Permit Holder(s) shall indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the Board of County Commissioners (BoCC) and ECM Administrator, from all claims, suits or actions of every name, kind and description brought for or on account of damage to property or injuries to or death of any person, including but not limited to the Permit Holder(s), persons employed by the Permit Holder(s), persons acting in behalf of the Permit Holder(s) and the public, resulting from the performance of work or other activity under the permit, or arising out of the failure to perform obligations under any permit with respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work or other activity, or at any subsequent time work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by state law. The Permit Holder(s) waives any and all rights to any type of expressed or implied indemnity against the County, its officers or employees. It is the intent of the parties that the Permit Holder(s) will indemnify, save, and hold harmless the County, its officers and employees from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault of or negligence, whether active or passive, primary or secondary, on the part of the County, the Permit Holder(s), persons employed by the Permit Holder(s), or persons acting in behalf of the Permit Holder(s).

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EL PASO COUNTY
STORMWATER PERMIT FORM
Erosion and Stormwater Quality Control Permit (ESQCP)

EPC Project Number: SF2514

APPLICATION AND PERMIT CERTIFICATION – PERMIT HOLDERS

We, as the Permit Holder(s), hereby certify that this application is correct and complete as per the requirements presented in the El Paso County Engineering Criteria Manual (ECM) and Drainage Criteria Manual (DCM) Volume 2. We, as the Permit Holder(s), have read and will comply with all of the requirements of the submitted Stormwater Management Plan (SWMP), Grading & Erosion Control (GEC) Plan, and any other documents specifying construction control measures to be used on the site, including permit conditions that may be required by the ECM Administrator. We understand that the approved plans are an enforceable part of the ESQCP. We further understand that we are to comply with all requirements set forth by the ECM and DCM Volume 2. We understand that the permitted area is that which is shown as the Limits of Disturbance on the GEC Plans. We further understand that a Construction Permit must be obtained and all necessary construction control measures are to be installed in accordance with the SWMP, GEC Plan, ECM, and DCM Volume 2 before land disturbance begins and that failure to comply will result in a Stop Work Order and may result in other penalties as allowed by law. We understand that the construction control measures are to be maintained on the site and be modified as necessary to protect stormwater quality as the project progresses. We further understand and agree to indemnify, save, and hold harmless the County and its officers and employees, including but not limited to the BoCC and ECM Administrator, from all claims, suits or actions of every name, kind and description as outlined in Responsibility for Damage section above.

_____ _____
Signature of Owner or Representative Date

David J Whitehead, P.E.
_____
Print Name of Owner or Representative

_____ _____
Signature of Contractor/Operator or Representative* Date
*If signed by a Rep, an Affidavit of Signature Authority must be included

Norbie Larsen
_____
Print Name of Contractor/Operator or Representative

APPLICATION AND PERMIT CERTIFICATION – EL PASO COUNTY

The following signature from the ECM Administrator signifies the approval of this ESQCP Application.

_____ _____
Signature of ECM Administrator Date

Other CDPHE Permit Certifications

Qualified Stormwater Manager Certification

GESC Drawings