

CITY STORMWATER MANAGEMENT PLAN (CSWMP)

Trails at Aspen Ridge Filing No. 5
El Paso County, Colorado
PCD File No. SF-XX-XXX

COLA, LLC

555 Middle Creek Parkway, Suite 500
Colorado Springs, Colorado 80921



August 14, 2026

Engineer's Statement

This CSWMP 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 CSWMP, 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: April Lamar Date: _____

Phone Number: 719-575-0100

Seal

Contractor's Statement

I will comply with the requirements of the Grading and Erosion Control Plan/CSWMP including Construction Control Measure inspection requirements and final stabilization requirements. I acknowledge the responsibility to determine whether the construction activities on these plans require Colorado Discharge Permit System (CDPS) permitting for stormwater discharges associated with construction activity.

Name of Contractor: _____

Authorized Signature: _____ Date: _____

Title: _____

Phone Number: _____

Address: _____

Email Address: _____

Owner's Statement

The owner will comply with the requirements of the City Stormwater Management Plan including Construction Control Measure inspection requirements and final stabilization requirements according to the City of Colorado Springs Stormwater Construction Manual. I acknowledge the responsibility to determine whether the construction activities on these plans require Colorado Discharge Permit System (CDPS) permitting for stormwater discharges associated with construction activity.

Owner Signature: _____ Date: _____

Name of Owner: Richard Van Seenus

Phone: 719-494-4893

Title: Land Development & Entitlements - Email: rvanseenus@viewhomesinc.com

City of Colorado Springs Grading and Erosion Control Review

This CSWMP is filed in accordance with City Code. This plan is reviewed in accordance with the Stormwater Construction Manual; latest revisions.

_____ Date: _____

For the SWENT Manager

Notes: _____

CITY STORMWATER MANAGEMENT PLAN (CSWMP)

Trails at Aspen Ridge Filing No. 5 Final Grading and Erosion Control Plans Colorado Springs, Colorado

Applicant (Owner/Developer):

COLA, LLC
Richard Van Seenus
555 Middle Creek Parkway, Suite 380
Colorado Springs, CO 80921

CSWMP Prepared By:

Matrix Design Group, Inc.
2435 Research Parkway, Suite 300
Colorado Springs, Colorado 80920
(719) 575-0100

Qualified Stormwater Manager:

Stephen Schoonover, QSM
Site Supervisor
COLA, LLC

Engineer Information:



Matrix Design Group, Inc.
2435 Research Parkway, Suite 300
Colorado Springs, CO 80920
(719) 575-0100

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Attachments

- CSWMP Drawings
- CSWMP Inspection and Maintenance Log
- Soil Survey of El Paso County Area Soils Map
- FEMA FIRM Floodplain Maps
- CDPHE General Permit

Replace with Stormwater Managers Certification

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1.

This Stormwater Management Plan (CSWMP) is being submitted on behalf of COLA, LLC for the proposed grading of the Trails at Aspen Ridge Filing 5 development site located southeastern Colorado Springs, Colorado. The proposed development will include construction of single-family homes, underground utilities, paved roadways, final grading and landscaping. The purpose of this CSWMP is to identify potential source areas that may contribute pollutants to stormwater and to identify Construction Control Measures (CCM)s that will reduce or eliminate adverse water quality impacts. Development, implementation, and maintenance of this CSWMP will provide the general contractor with the framework for reducing soil erosion and minimizing pollutants in stormwater during construction of the project site.

This CSWMP has been prepared in accordance with engineering, hydrologic and pollution control practices and will cover this facility only (the extents of the Project Area) using CCMs to reduce the pollutants in stormwater discharges as described in Section 2 of this CSWMP. The CSWMP will be administrated by the Qualified Stormwater Manager identified in Section 1.3. The Qualified Stormwater Manager's duties include the following:

- Implement the CSWMP
- Oversee installation and maintenance of CCMs as identified in the CSWMP
- Implement and oversee employee training
- Conduct or provide for inspection and monitoring activities
- Identify potential pollutant sources and make sure they are included in the CSWMP
- Identify any deficiencies in the CSWMP and make sure they are corrected
- Ensure that any changes in construction plans, phasing, or use of CCM's are addressed in the CSWMP

The provisions of this CSWMP must be implemented as they are written and updated, from the initiation of construction until final stabilization is complete. The Water Quality Control Division reserves the right to review the CSWMP, and to require the permittee to develop and implement additional measures to prevent and control pollution as is needed.

1.1 Site Description

The proposed Trails at Aspen Ridge Filing 5 project is located to the southeast of the intersection of Powers Blvd and Bradley Road. Bordering the site to the north is a vacant future commercial parcel; to the south is existing Trails at Aspen Ridge Filing 1; to the east is Legacy Drive; and to the west is Powers Blvd. Coordinates for the development area are as follows:

- Latitude: 38°45'9"N
- Longitude: 104°40'54" W

Construction activity is currently taking place at the site for adjacent filings and there are homes built in the overall development nearby. Overlot grading for Trails at Aspen Ridge Filing 5 has been completed at the time of this report as part of the overall Trails at Aspen Ridge PUDD Master Development. See the

Trails at Aspen Ridge Filing No. 5
City Stormwater Management Plan

attached GEC drawings for adjacent parcel ownership information. Existing vegetation onsite consists of primarily native grasses with sparse trees and shrubs.

Exhibit 1.1 Site Location



1.2 Project Contact Information

Contact Information/Responsible Parties			
Owner	Richard Van Seenus COLA, LLC 555 Middle Creek Parkway Colorado Springs, CO 80921	719-494-4893	rvanseenus@viewhomesinc.com

Trails at Aspen Ridge Filing No. 5
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Project Manager/Site Supervisor	Stephen Schoonover QSM COLA, LLC 555 Middle Creek Parkway, Suite 380 Colorado Springs, CO 80921		sschoonover@desertviewhomes.com
Qualified Stormwater Manager	Stephen Schoonover QSM COLA, LLC 555 Middle Creek Parkway, Suite 380 Colorado Springs, CO 80921		sschoonover@desertviewhomes.com
CSWMP Preparer	April Lamar, PE Matrix Design Group 2435 Research Pkwy Suite 300 Colorado Springs, CO 80920	(719) 575-0100	April.lamar@matrixdesigngroup.com

1.3 Disturbance Area and Import/Export Volume

The following is the total site area and the expected area of disturbance. Any changes to the area of disturbance (current disturbance) must be updated as changes occur.

Total Site Area	37.95 acres	Date: 7/31/26
Estimate of Disturbance Area	38.68 acres	Date: 7/31/26
Import/Export Volume Estimate	380,243 CY	☐ Import ☒ Export
Updated Disturbance Area		
Updated Disturbance Area		
Updated Disturbance Area		

1.4 Construction Activities

This CSWMP has been prepared for site development activities including utility installation, paving operations, final grading, and vertical construction. Construction is to include utility installation, road paving and site grading for the single lot family homes in the Trails at Aspen Ridge Filing 5 subdivision. Clearing and grubbing, overlot grading, overlot road grading with proper control measures were performed during the initial overlot grading plans. There is no planned phasing anticipated for the site.

1.5 Construction Sequencing and Phasing

Construction Schedule		Estimated Start Date	Estimated Completion Date
Anticipated Project Start Date		Sept 2026	
1. Install Initial CCMs		Sept 2026	Oct 2026
2. Clearing and Grubbing		Sept 2026	Oct 2026
3. Temporary Stabilization CCMs		Sept 2026	Oct 2026
4. Road Grading		Oct 2026	Dec 2026
5. Site Grading		Oct 2026	Dec 2026
6. Utility Installation		Nov 2026	Jan 2027
7. Curb and Gutter		Feb 2027	Mar 2027
8. Street Paving		Mar 2027	Apr 2027
9. Vertical Construction		May 2027	Oct 2028
10. Final Stabilization		May 2027	Oct 2028
11. Removal of Temporary Control Measures			Oct 2028
Anticipated Project End Date			Oct 2028
Construction Phase	Description and Conservation Measures		
Install Initial CCMs	Silt Fencing (perimeter CCM) and perimeter control sediment control logs will be installed at designated locations (see Grading and Erosion Control Plan details) as outlined in Section 2. Vehicle tracking control will be installed at the entrance/exit to any disturbed areas as work progresses as outlined in Section 2. All construction traffic must enter/exit the site at approved construction access points. Sediment basins shall be installed prior to any land-disturbing activities that will rely on the basin for stormwater control (Section 2).		
Clearing and Grubbing	Clearing and Grubbing of the site will be the initial construction phase. CCMs outlined in Section 2 will be used to control erosion and sediment runoff.		
Temporary Stabilization CCMs	Temporary stabilization measures to control erosion and sediment runoff will be implemented as outlined in Section 2.		
Site Grading	Erosion and sediment runoff during site grading will be controlled by CCMs outlined in Section 2.		
Road Grading	Overlot road grading will be completed using CCMs outlined in Section 2 to control erosion and sediment runoff.		
Utility Installation	Following site grading, utility corridors will be constructed beginning with sewer and water and followed by storm sewer. Dry utilities will be constructed last. Existing street cuts will be paved and resealed after the utility installation is complete. CCMs outlined in Section 2 will be used to control erosion and sediment runoff.		

Curb and Gutter	Curb and gutter will be installed following final site grading activities. CCMs outlined in Section 2 will be used to control erosion and sediment runoff.
Final Grading	Final grading will be completed following installation of curb and gutter at the site. CCMs outlined in Section 2 will be used to control erosion and sediment runoff.
Paving	Streets and Parking lots will be paved following final site grading activities. CCMs outlined in Section 2 will be used to control erosion and sediment runoff.
Vertical Construction	CCMs outlined in Section 2 will be used to control erosion and sediment runoff prior to beginning vertical construction (Initial Phase). The Interim Phase of vertical construction includes foundation excavation and construction, construction of structural framing, exterior completion, and minor utility work. Inlet protection outlined in Section 2 should remain in place during the interim construction phase. Perimeter CCMs as outlined in Section 2 will remain in place. Temporary stabilization CCMs (Section 2) should be implemented on all disturbed areas that are not subject to active construction. The Interim to Final Phase of construction includes interior/exterior structure completion, concrete flatwork, and final lot grading activities. Inlet protection outlined in Section 2 should remain in place during this construction phase. Perimeter CCMs should be evaluated for effectiveness and maintained as needed. Temporary stabilization CCMs should be used on all disturbed areas not subject to active construction activities. Final site grading, cleanup, and landscaping is the Final Phase of vertical construction. In most cases, CCMs can be removed immediately prior to final grading, and landscaping activities. In areas where landscaping and hardscaping are not planned, CCMs should be maintained and temporary stabilization measures should remain in place. Sites should be monitored until stabilization requirements are met.
Final Stabilization and Removal of Temporary CCMs	Once construction activity ceases, the area shall be stabilized with permanent landscaping and/or seed and mulch as outlined in Section 3. Final stabilization is complete when all ground disturbing activities are complete and all disturbed areas have either a uniform vegetative cover with an individual plant density of 70% of pre-disturbance levels (not including noxious weeds), permanent hardscaping or paving is in place, or an equivalent permanent alternative stabilization method is implemented. Once stabilization is complete, all temporary sediment and erosion control measures shall be removed.

1.6 Soils

The United States Department of Agriculture, Natural Resources Conservation Service (NRCS); Web Soil Survey of El Paso County Area, Colorado, published by the United States Department of Agriculture, dated August 2026, was utilized to investigate the existing general soil types within and surrounding the Project area. A soil map for this area is provided in the Attachments. Per the information given within the Soil Conservation Survey, the study area primarily includes hydrologic soil groups A and B as described in the following table. Hydrologic group “A” is characterized by deep, well-drained coarse-grained soils with a rapid infiltration rate when thoroughly wet and having a low runoff potential. Group “B” soils typically have moderately fine to moderately coarse textures that are associated with sandy glacial sediment and alluvial materials with a moderate infiltration rate when thoroughly wet and low runoff potential. Previous geotechnical investigations have been conducted throughout the development. Additional geotechnical investigation is in process.

Soil ID Number	Soil Type	Soil Description	Hydrologic Classification
8	Blackland loamy sand, 1% to 9% slopes	Surface runoff is low, somewhat excessively drained soil	A
52	Manzanst Clay Loam, 0% to 3% slopes	Surface runoff is moderate, partially-draining soil, the hazard of erosion and soil blowing are moderate to high	C
56	Nelson-Tassel Fine Sandy Loams, 3% to 18% slopes	Surface runoff is moderate, partially-draining soil, the hazard of erosion and soil blowing are moderate to high	B
108	Wiley Silt Loam, 3% to 9% slopes	Surface runoff is moderate, partially-draining soil, the hazard of erosion and soil blowing are moderate to high	B

All exposed soil throughout the Project site will be landscaped with permanent landscaping or seeded with a locally approved seed mix as described in Section 2.2.

1.7 Vegetation

The existing vegetation is sparse and consists mainly of native grasses. A large portion of the area has been overlotted graded within the approved initial grading and erosion control plans for Trails at Aspen Ridge PUDD Master Plan. Overlot grading has been stabilized with proper measures and make up existing conditions and vegetation for the proposed improvements and CCMs. Based on site visits and a review of aerial photography, the current vegetative cover at the Project Area is visually estimated based on site inspection at approximately 95% outside of the initial overlotted grading operations.

1.8 Allowable Non-Stormwater Discharges

Uncontaminated groundwater may be discharged onsite, but may not leave the site in the form of surface runoff. Concrete washout areas will be used as described in Section 2.3.

1.9 Receiving Waters

Ultimate Receiving Water(s): Jimmy Camp

Stormwater Outfalls/Storm Sewer System Discharge:

East Pond:

- Discharge: 48" Reinforced Concrete Pipe (RCP)
- Location of Discharge: Southeast corner of Trails at Aspen Ridge Master Development
- Receiving Conveyance: Proposed East Pond drains to the West Fork of Jimmy Camp Creek

1.10 Stream Crossings within the Project Area

No stream crossings are located within the Project Area.

1.11 Potential Sources of Pollution

Pollutants that result from clearing, grading, maintenance, operations, and excavation have the potential to be present in stormwater runoff and are potential sources for stormwater contamination. The following is a description of potential source areas for pollutant that may be released during construction, maintenance, operation, and excavation activities:

Source Area:

1. Disturbed and stored soils, erosion.
2. Vehicle tracking of sediments.
3. Management of contaminated soils.
4. Loading and unloading operations.
5. Outdoor storage activities (erodible building materials, fertilizers, chemicals, etc.).
6. Vehicle and equipment maintenance, cleaning, and fueling operations.
7. Significant dust or particulate generation activities.
8. Routine maintenance activities involving fertilizers, pesticides, herbicides, detergents, fuels, solvents, etc.
9. Onsite waste management practices (waste piles, liquid wastes, dumpsters, chemical containers etc.).
10. Concrete truck/equipment washing
11. Non-industrial waste sources (trash, portable toilets)

The following pollutants may impact stormwater runoff for each of the source areas listed above.

Potential Pollutant	Chemical/Physical Description	Stormwater Impacts	Potential Source Area (listed above)
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbamates, arsenic	3, 4, 5, 8, 9
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous	3, 4, 5, 8, 9
Cleaning solvents	Colorless, blue, or yellow-green liquid	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	3, 4, 5, 6, 8, 9, 10, 11, 12
Concrete	White solid	Limestone, sand	3, 5, 9, 10, 11
Paints	Various colored liquid	Metal oxides, stoddard solvent, talc, calcium carbonate, arsenic	3, 5, 6, 9
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium	3, 5, 8
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil	3, 4, 5, 6, 8, 9, 11
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE	2, 3, 4, 5, 6, 8, 9, 10
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes	2, 3, 4, 5, 6, 8, 9, 10
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates	5, 6, 8, 9
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	2, 3, 4, 5, 6, 8, 9, 10
Particulates	Dust, airborne particulates	Sediment	1, 2, 4, 5, 6, 10, 11
Biological	Human/animal waste	Bacterial	12

The largest possible sources of non-stormwater pollution will be from trucks during equipment maintenance and refueling operations. The contractor shall be responsible for any spill cleanup during refueling operations in accordance with applicable city, county and state regulations. The contractor will also be responsible for cleanup of any off-site vehicle tracking on paved roads. Other sources of pollution

such as vehicle washing, chemical storage or waste disposal are not anticipated. No recognized environmental conditions (RECs) have been identified within Project site.

1.12 Spill Prevention and Response Plan

The Spill Prevention and Response Plan (SPRP) is designed to outline requirements for the handling and management of hazardous substances (pesticides, herbicides, fuels, cleaners, etc.) stored or used at the Project Area.

Materials Management and Handling

- Chemicals that have the potential to be released in stormwater are to be used only where necessary and in a manner consistent with industry-standard uses and handling procedures.
- Ensure all hazardous materials are properly labeled.
- Store, dispense, and/or use hazardous substances in a way that prevents releases.
- Provide secondary containment when storing hazardous substances in bulk quantities (greater than 55-gallons).
- Maintain good housekeeping practices for chemicals stored onsite.
- Complete routine checks of hazardous substance storage areas.
- Provide monthly inspections of hazardous substance storage areas, secondary containment, and above ground and/or underground storage tanks.

Spill Containment and Reporting

A release of any chemical, oil, petroleum product, sewage, etc. that has the potential to enter surface water, groundwater, dry gullies, or storm sewers leading to surface water must be reported to the CDPHE immediately (25-8-601 CRS). When a spill is identified, the proper spill response should be implemented:

1. Assess the area for any immediate dangers or health and safety concerns. If any immediate dangers are present, call 911.
2. Contain any spilled materials. Assess the size of the leak and immediate threat of the spill reaching storm drains or permeable surfaces. If there is an immediate threat and no safety concerns, attempt to block the spill from reaching storm drains or other impermeable surfaces.
3. Stop the source of the spill if possible.
4. Cleanup spill in a timely manner. Use adsorbent materials (cat litter) and/or sock booms or rags to clean up the spill. Dispose of used materials appropriately.
5. Report and record spills to Qualified Stormwater Manager. Once the spill has been contained and any immediate threat to storm drains or permeable surfaces has been minimized, contact the Qualified Stormwater Manager. If necessary, a specialized cleanup contractor should be used to clean up the remaining contamination.
6. Follow applicable Colorado Discharge Permit System (CDPS) terms and conditions regarding spill reporting and response.
7. Report spills to the Colorado Department of Public Health and Environment (CDPHE). For non-permitted activities or in the case of an activity where a permit does not address reporting of or

response to a spill which may cause pollution of surface or subsurface waters of the State, notify the Environmental Release and Incident Reporting Line within 24 hours at **(877) 518-5608**. Reporting should include:

- a. Name of responsible person or name of Qualified Stormwater Manager
 - b. An estimate of the date and time of the release
 - c. The location of the spill and its source (saddle tank, manhole, storage container, etc.),
 - d. The type of material spilled (untreated wastewater, petroleum products, etc.)
 - e. The estimated volume of the spill
 - f. The time and date the spill was controlled or stopped
 - g. If the spill is ongoing, the estimated rate of flow and when the spill is expected to be controlled/contained
 - h. Measures being taken to contain, reduce, and/or clean the spill
 - i. A list of potentially impacted areas and known downstream water uses that will be or have been notified
 - j. The phone number and email of the Qualified Stormwater Manager.
8. Any accidental discharge to the sanitary sewer system must be reported immediately to the local sewer authority and the affected wastewater treatment plant.
 9. Written notification following a reportable spill shall be submitted to the CDPHE within five days (5 CCR 1002-31, Section 61.8(5)(d)).

2. IMPLEMENTATION OF CONTROL MEASURES

Construction Control Measures (CCM's) 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 CCM's appropriate for a particular construction site are largely dependent on the types of potential pollutant sources present, the nature of the construction activity, and specific-site conditions.

Most of the CCM's 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*. To prevent soil from washing into the public right-of way or the undisturbed areas of the site, the following is a discussion of CCMs and an indication of which CCMs are expected to be implemented as part of this Project.

CCMs 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 CCM's shall be maintained until site reaches final stabilization and permanent soil erosion control measures are implemented.

The Stormwater Manager may modify the planned CCMs based on construction sequencing, site conditions, and/or other factors. The CSWMP should be modified by field notes including dates of modifications and the purpose of the modification. The Grading and Erosion Control Plan should reflect

what has been constructed or modified onsite. The Stormwater Manager will be responsible for documenting CCM's (including phasing of CCM implementation).

2.1 Structural CCMs

Structural CCMs are used to minimize erosion and sediment transport and include but are not limited to: silt fencing, erosion control blankets, turf reinforcement mat, wattles/sediment control logs, earth dikes, drainage swales, sediment traps, gravel inlet protection, inlet/outlet protection, straw bales, concrete washout areas, and temporary or permanent sediment basins. Structural CCMs shall be coordinated with construction activities so the CCM is in place before construction begins. The structural CCMs outlined below are general definitions and guidelines. Project-specific specifications for selected CCMs are detailed in the Grading and Erosion Control Drawings included in the Attachments.

- **Silt Fencing:** A silt fence is a structural sediment control device that typically consists of a geotextile fabric attached to wooden stakes inserted into a ground trench and rising to a vertical height of approximately 18-inches. The silt fence is generally used as perimeter sediment control and as a primary containment around storage areas, staging areas, stockpiles, etc.

Used for this project? ☒ Yes ☐ No

Application notes: Temporary perimeter controls (e.g. silt fences) will be installed *before* any land disturbance including clearing and grading begins. The use of rebar, steel stakes, or steel fence posts to anchor silt fencing is prohibited. Once the site is developed, the underground detention system is completed, and unpaved disturbed areas are 70% established with vegetation or permanent landscaping, the silt fences around the Project site can be removed.

- **Erosion Control Blanket:** An erosion control blanket (ECB), also known as a rolled erosion control product (RECP), is a rolled-fiber product typically made up of straw, coconut, or synthetic fibers that are used to prevent scour erosion, stabilize slopes, and to aid revegetation by providing a protective layer over seeded areas. Turf reinforcement mats are similar to ECBs and are made to withstand greater stress such as traffic, extended life, or continuous and frequent water flow. ECBs are available in both biodegradable and photodegradable varieties.

Used for this project? ☒ Yes ☐ No

Application Notes: Exposed slopes greater than 4:1 will be temporarily mulched and seeded and protected with ECBs. The proposed bypass swale shall be lined with 100% coconut straw erosion control blanket. A Qualified Stormwater Manager inspector shall re-inspect the blanket within the bypass swale 24-months after installation. Erosion control blanket with the bypass swale may have to be re-installed to meet manufacturer specifications.

- **Sediment Control Logs:** SCLs are log-shaped, rolled straw products encased in a polypropylene monofilament filter fabric. SCLs are used for sediment control usually at the perimeter of a disturbance or as a channel check in low flow areas. SCLs can also be used for slope length reduction.

Used for this project? ☐ Yes ☒ No

Application Notes: SCLs that at as perimeter control shall be installed prior to any upgradient land disturbance.

- **Inlet Protection:** Storm sewer inlet protection is typically comprised of 1.5-inch angular rock (gravel) wrapped in a chicken wire mesh to form an approximate 6-inch diameter roll in varying lengths. The gravel roll should be firmly secured in front of the inlet opening with a spacing device to prevent the roll from entering the inlet. A sufficiently-sized overflow opening should be left to prevent flooding during high surface water flow volumes. The basic design applies to curb and drop-style inlets. Over-excavation inlet protection is primarily applicable for sites that have not yet reached final grade and should only be used for inlets with a relatively small contributing drainage area.

Used for this project? ☒ Yes ☐ No

Application Notes: Inlet protection measures shall be installed *before* clearing and grading is initiated. This form of inlet protection should be used only for inlets with a relatively small contributing drainage area.

- **Inlet/Outlet Protection:** Inlet/outlet protection can be composed of 4- to 6-inch rock (rip-rap) underlain with geotextile fabric placed at the outlet or inlet of a drainage pipe, culvert, or other areas where high surface water flow may be encountered. Geotextile socks filled with gravel or haybales may also be used as a temporary inlet/outlet protection CCM. This CCM is used to reduce erosion sediment transport by reducing flow velocity.

Used for this project? ☐ Yes ☒ No

- **Earthen Berms:** Earthen Berms can be used as temporary or permanent solutions for sediment and erosion control. The berms are typically designed to control the flow path of runoff by diverting surface water around areas prone to erosion such as steep slopes or other preferential flow pathways.

Used for this project? ☐ Yes ☒ No

Application Notes: Earthen berms may be placed to help direct surface flow to the underground Detention Facility

- **Check Dams:** A check dam is a small, sometimes temporary, grade control mechanism constructed across a swale, drainage ditch, or waterway to counteract erosion by reducing water flow velocities.

Used for this project? ☐ Yes ☒ No

Application Notes: Rip-rap will line the designed drainage swales and will decrease water flow velocity in steep areas.

- **Drainage Swales:** Swales can be permanent or temporary and are typically designed to control storm water runoff in a non-erosive manner to a destination such as a detention pond or other stormwater collection facility. Swales can also be designed with velocity control devices and can be made of concrete or lined with materials such as rock or grass.

Used for this project? ☐ Yes ☒ No

Application Notes: Drainage swales directing surface water flow towards the south are located on the eastern and western edges of the development area. The drainage swales empty into temporary sediment basins and, ultimately, to the southwest corner of the site.

- **Sediment/Detention Basins:** Sediment/Detention basins are designed according to project size and runoff volume and are used for flood control and to aid in temporary retention of runoff to aid in sediment deposition. A release point for runoff water is typically present and consists of an emergency overflow or regulating structure.

Used for this project? ☐ Yes ☒ No

Application Notes: Temporary sediment basins are proposed to collect and treat disturbed area during construction activities. The basins will be designed to release surface water runoff at historical rates where the flow will ultimately be conveyed to Jimmy Camp Creek.

- **Vehicle Tracking Control:** VTC is used to limit off-site tracking of sediment from disturbed or unpaved areas to paved areas. VTC can include: TRM or mud mats installed at the point of access from unpaved areas (used when traffic is limited or light), a 1.5-inch diameter rock gravel access pad combined with pavement sweeping (used when traffic is limited or light), or a 3+-inch rock with geotextile underlayment combined with street sweeping (used for heavy construction traffic or at the main access point to a development site).

Used for this project? ☒ Yes ☐ No

Application Notes: VTC Entrances to disturbed areas will be constructed *before* clearing and grading begins.

- **Stabilized Staging Area:** A staging area for equipment and material storage, parking, and loading/unloading operations should be sized appropriately for the needs of the site and should be constructed prior to the onset of construction activities. Site stabilization may include structural CCMs (e.g. perimeter fencing, gravel laydown, VTC) and housekeeping CCMs and should be maintained appropriately.

Used for this project? ☐ Yes ☒ No

Application Notes: A stabilized staging area will be constructed prior to other operations for parking, construction trailers, portable toilet facilities, storage, and construction equipment.

2.2 Non-Structural CCMs

Non-structural CCMs are implemented at the site to minimize erosion and sediment transport and may include temporary or permanent vegetation, mulching, landscaping, geotextiles, sod stabilization, surface roughening, vegetative buffer strips (VBS), and protection/preservation of trees and other mature vegetation. The non-structural CCMs outlined below are general definitions and guidelines. Project-specific specifications for selected CCMs are detailed in the CSWMP Drawings included in the Attachments.

- Temporary and permanent seeding: Seeding of disturbed areas provides soil stabilization and helps prevent erosion and sediment transport. Seeding is usually performed by ripping the area, spreading the appropriate seed mix, and applying straw mulch at a rate of two tons per acre over the seeded area. In some cases, a tackifier may be used to anchor the straw mulch. Managing and applying the proper seed mix and following the specified maintenance procedures are very important in promoting timely growth of grasses while minimizing weed growth. This CCM is effective on slopes up to 4:1 and where soil conditions are adequate.

Used for this project? ☒ Yes ☐ No

Application Notes: A seed mixture developed for elevations between 3,000 and 8,000 feet will provide natural cover under dryland conditions. The seed mix will contain both cool and warm seasonal grasses adapted to the Western Great Plains and Southwest region. Temporary seeding will be completed in disturbed areas as indicated in the attached Grading and Erosion Control Plan following initial grading activities to stabilize the site prior to final site completion and permanent landscaping. Seeding on slopes greater than 4:1 will be protected by ECBs.

- Mulching: A layer of suitable mulch is typically applied at a rate of two tons per acre and can be tacked or fastened by an approved method suitable for the type of mulch used. Rough cut streets can be mulched in lieu of a layer of aggregate road base or asphalt paving. Seeding shall be placed in areas designated as being in an interim state.

Used for this project? ☒ Yes ☐ No

Application Notes: A temporary layer of suitable mulch shall be applied at a rate of two tons per acre to all disturbed portions of the site within 21 days of the completion of grading. If the area is to remain in an interim state for more than 60 days, seeding CCMs shall be used. Mulch can be used in areas of rough cut streets unless a layer of road base or asphalt paving is planned within 21 days.

- Landscaping: Landscaping includes rock, mulch, sod, trees, bushes, geofabrics, hardscaping, etc. as identified in the final stabilization specifications. Landscaping may be done by the developer or by the property owner.

Used for this project? ☒ Yes ☐ No

Application Notes: Permanent landscaping per landscape architectural designs will be completed following vertical construction during or after the final phase of vertical site construction. CCMs can be removed immediately prior to permanent landscaping activities

- Surface Roughening: Surface roughening is the mechanical breaking up of soils as a short-term method of temporary stabilization in areas where temporary seeding is not practical or in areas where active construction is ongoing. Surface roughening is achieved through ripping or tilling the surface to increase surface area and infiltration.

Used for this project? ☒ Yes ☐ No

Application Notes: Surface roughening using scarifying methods such as disking or dragging bucket teeth over areas of disturbed soils parallel to slope contours may be used in areas where temporary seeding is not practical.

- Vegetative Buffer Strips: VBS are areas of original vegetation kept in place during construction that are preserved and maintained to filter sediment deposited from sheet flow. Maintenance includes cleanup of sediment and re-vegetation of VBS as necessary. Maintaining vegetative buffers is important around sensitive areas such as wetlands, waterways, etc.

Used for this project? ☐ Yes ☒ No

Application Notes:

2.3 Housekeeping CCMs

Housekeeping CCMs are maintenance practices implemented to keep the site clean, reduce potential chemical or biological exposures, and to minimize the tracking of soils to hard surfaces and airborne particles. Maintenance CCMs include street sweeping, dust suppression techniques, spill prevention and response (Section 1.13), waste management and disposal, and materials handling and management (Section 1.14). Project-specific specifications for selected CCMs are detailed in the CSWMP Drawings included in the Attachments.

- Street Sweeping: Street sweeping is the practice of removing soil clumps, scraping packed dirt/mud, and sweeping loose soils tracked onto paved surfaces to prevent sediment transport in runoff water. Materials removed as part of this CCM should be deposited in an area contained by perimeter CCMs or disposed offsite.

Used for this project? ☒ Yes ☐ No

Application Notes: Street sweeping methods will be employed in areas of ingress/egress from paved areas to the construction site. Vehicle tracking of soils and construction debris off-site shall be minimized. Materials tracked offsite shall be cleaned up and properly disposed immediately. The owner, site developer, contractor, and their agents shall be responsible for the removal of

dirt, rock, construction debris, trash, sediment, and sand that accumulates in public right of ways, storm sewers, or other drainage conveyance system and stormwater appurtenances.

- **Stockpile Protection Plan:** Management of onsite soil stockpiles will be in accordance with a Stockpile Protection Plan. Structural CCMs (e.g. silt fencing, ECBs, SCLs) and non-structural CCMs (e.g. surface roughening, temporary seeding and mulching, soil binders) may be used for stockpile stabilization and to prevent erosion and sediment transport at the piles. Consideration for determining the appropriate type of perimeter control includes stockpile location, the relative heights of the perimeter control and stockpile, the ability of the perimeter control to contain the stockpile without failing in the event the stockpile shifts or slumps against the perimeter, and other factors. Perimeter controls must remain in place and routine maintenance must be performed including routine inspections to maintain effective operating condition of each CCM.

Used for this project? ☐ Yes ☒ No

Application Notes: At this time, soil stockpiles are not expected to be onsite for more than 14 days. If long-term storage of soils is necessary, perimeter controls (e.g. silt fencing, sediment control logs) and surface stabilization (e.g. surface roughening, erosion control blankets) shall be in place for soil stockpiles. Stockpiles that will remain onsite for longer than 60 days should be seeded and mulched within 14 of placing the stockpile.

- **Dust Suppression:** Dust suppression CCMs are typically used to minimize the transport of fine particles through the air. Dust suppression techniques may include keeping the site wet using water trucks or other wetting methods or covering of loose soils in disturbance areas. During periods of high wind, the following activities should be monitored: limited street sweeping, restriction of major grading activities, restriction of soil stockpiling, controlling vehicular speed.

Used for this project? ☒ Yes ☐ No

Application Notes: A water source shall be available onsite during earthwork operations and utilized as required to minimize dust from earth working operations and wind.

- **Load Covering:** Trucks or other vehicles carrying cut or fill materials to or from the site should be covered to prevent accidental loss of material during transport onto public right of ways

Used for this project? ☒ Yes ☐ No

Application Notes: Loads of cut and fill must be properly covered.

- **Site Waste Management and Disposal:** Construction waste disposal and trash generated by onsite personnel should be collected in dumpsters or similar trash containers and emptied on a regular basis. Construction waste and trash should be kept in a secure area (the stabilized staging area) and lidded if required to avoid accidental spreading of waste. Trash containers should be kept on permeable surfaces within perimeter CCMs. Loose trash should be collected daily and disposal services should be on a regular schedule to avoid overfilling of containers.

Hazardous materials may not be disposed in trash containers and no waste materials should be buried onsite.

Used for this project? ☒ Yes ☐ No

Application Notes: Trash at the site will be cleared daily and kept in secured and/or covered receptacles. Waste disposal will be managed through a licensed contractor.

- **Portable Toilet Facilities:** A proper number of portable toilets should be located within the stabilized staging area at the Project Site and should be kept within the perimeter CCMs on permeable surfaces. Portable toilets should be anchored to prevent tipping and should be at least five feet behind curbs and at least 50 feet from any storm sewer inlets. Toilets should also be kept away from preferential flow pathways and from all water bodies. Regularly scheduled maintenance should be in place to empty and clean the receptacles to prevent overflow and waste collecting.

Used for this project? ☒ Yes ☐ No

Application Notes: Portable toilets will be provided and maintained through a private contractor.

- **Concrete Washout:** Concrete washout areas typically consist of an unlined pit in the ground with a vehicle tracking control (VTC) entrance and are designed to capture and contain concrete washout water. In areas with a high groundwater table, poly-lined pits or a portable waste bin may be used. Pits should be placed to minimize the potential for pollutant discharge. Washout basin deposits (hardened concrete waste) should be removed and properly disposed offsite as solid waste on a regular basis after liquids have evaporated.

Used for this project? ☒ Yes ☐ No

Application Notes: A concrete washout area will be constructed to support development activities.

3. FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

Following initial site grading activities, if needed, disturbed areas will be temporarily seeded as an interim measure before paving and vertical construction begins. Final stabilization and long-term stormwater management will begin following completion of paving/hardscaping, vertical construction, and permanent landscaping activities. Final stabilization will be met with the installation of permanent CCMs, permanent landscaping, and seeding and mulching. Once stabilization is complete and permanent CCMs are in place, all temporary sediment and erosion control measures shall be removed. Noxious weeds do not count towards the 70% cover for final stabilization. Please reference the Trails at Aspen Ridge Filing 5 landscape plan for final stabilization and landscaping of the site.

The existing private full spectrum extended detention basin, East Pond, has been designed to provide water quality and detention for the Trails at Aspen Ridge Filing 5 site. The pond has been designed to allow for sediment to be retained within the detention basin.

3.1 Inspection and 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 inspection will be the responsibility of the Qualified Stormwater Manager. An inspection report form has been provided in the Attachments. The inspection will verify that the structural CCMs described in Section 2.1 of this CSWMP are functioning properly, in good condition, up to date and continue to 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:

- Accumulated sediment and debris shall be removed from a CCM when the sediment/debris level reaches one half the height of the CCM or at any time that sediment or debris adversely impacts the functioning CCM.
- Built up sediment will be removed from silt fencing when it has reached one-third the height of the fence.
- Silt fences will be inspected for depth of sediment, for tears, to see if the fabric is securely attached to the fence posts, and to see that the fence posts are firmly in the ground.
- Sediment basins will be inspected for depth of sediment and built up sediment will be removed when it reaches 1 foot in depth.
- Temporary and permanent seeding will be inspected and noted for bare spots, washouts, and healthy growth.
- The stabilized construction entrances will be inspected for sediment tracked on the road, for clean gravel, and to make sure that all traffic uses the stabilized entrance when leaving the site.

- The maintenance inspection report will be made after each inspection. A copy of the report form to be completed by the Qualified Stormwater Manager is provided in the Attachments. 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.
- If construction activities or design modifications are made to the site plan which could impact stormwater, this CSWMP will be amended appropriately. The amended CSWMP will have a description of the new activities that contribute to the increased pollutant loading and the planned source control activities.

3.2 Self Inspection

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 GEC Administrator must be qualified according to Chapter 2, Section 5.0 of the Stormwater Construction Manual.

The GEC Administrator shall, at a minimum, make a thorough inspection at least once every 14 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 GEC Administrator 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 GEC Administrator'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 GEC Administrator shall submit documentation of the self-inspections by uploading the document to the City's Electronic Permitting Management System. Completed self-inspection forms must be submitted electronically within 5 business days of the self-inspection. The self-inspections must also be available either physically or electronically at the construction site at all times throughout the duration of the project. GEC Inspectors will review self-inspections during City 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 GEC Administrator shall make a thorough inspection of their Control Measures at least once every month. 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 a month. When site conditions make the schedule required in this section impractical, the permittee may petition the City to grant an alternate inspection schedule. The alternative inspection schedule may not be implemented prior to written approval by the City and incorporation into the CSWMP. The Permittee is responsible to confirm that the frequency of inspections is sufficient to ensure that Control Measures remain in good working condition at all times. For more information on Self-Inspections see SCM Chapter 6, Section 2.2.

3.3 CCM Replacement and Failed CCMs

At a minimum, the contractor shall inspect and keep a log of all CCMs on a weekly basis and after a significant precipitation event. CCMs should be assessed by a qualified inspector to determine if new or replacement CCMs are necessary. Where CCMs have failed, the failure must be addressed as soon as possible to minimize discharge of additional pollutants. As new CCMs are installed and/or replaced, this CSWMP should be updated to reflect the change(s).

3.4 Qualified Inspectors

The Qualified stormwater manager will be sufficiently qualified for the required duties per the ECM Appendix I.5.2.A. Qualified inspectors should be knowledgeable in the principals and practices of erosion and sediment control and should have a good working knowledge of the regulation and CCMs included in this CSWMP. Inspectors should also be able to anticipate site conditions and assess CCM functionality that could impact stormwater runoff.

3.5 Additional CSWMP and CCM Practices

An employee training program should be developed and implemented to educate employees about the requirements of the CSWMP. This education program will include background on the components and goals of the CSWMP and hands-on training in erosion controls, spill prevention and response, good housekeeping, proper material handling, disposal and control of waste, equipment fueling, and proper storage, washing, and inspection procedures.

The CSWMP should be viewed as a “living document” that is continuously being reviewed and modified as a part of the overall process of evaluating and managing stormwater quality issues at the site. The qualified stormwater manager shall amend the CSWMP when there is a change in design, construction, O&M of the site which would require the implementation of new or revised CCMs or if the CSWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with construction activity or when CCMs are no longer necessary and are removed.

This plan was prepared in accordance with the CDPS General Permit. A copy of this permit is provided in the Attachments.

Attachments

CSWMP Drawings

CSWMP Inspection & Maintenance Log

Stormwater Management Plan Inspection and Maintenance Log

***Trails at Aspen Ridge Filing No. 5
Colorado Springs, CO***

(Record inspections, items found maintenance and corrective actions taken. Also, record any training received by Contractor personnel with regard to erosion control, materials handling and any inspections by outside agencies)

[illegible]

Soil Survey of El Paso County Area Soils Map

Custom Soil Resource Report Soil Map



Custom Soil Resource Report

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 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: El Paso County Area, Colorado
Survey Area Data: Version 18, Jun 5, 2020

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

Date(s) aerial images were photographed: Aug 14, 2018—Sep 23, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background 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
8	Blakeland loamy sand, 1 to 9 percent slopes	12.6	15.1%
52	Manzanst clay loam, 0 to 3 percent slopes	1.0	1.2%
56	Nelson-Tassel fine sandy loams, 3 to 18 percent slopes	50.0	60.1%
108	Wiley silt loam, 3 to 9 percent slopes	19.7	23.6%
Totals for Area of Interest		83.2	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.

Custom Soil Resource Report

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.

El Paso County Area, Colorado

8—Blakeland loamy sand, 1 to 9 percent slopes

Map Unit Setting

National map unit symbol: 369v
Elevation: 4,600 to 5,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 46 to 48 degrees F
Frost-free period: 125 to 145 days
Farmland classification: Not prime farmland

Map Unit Composition

Blakeland and similar soils: 98 percent
Minor components: 2 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Blakeland

Setting

Landform: Hills, flats
Landform position (three-dimensional): Side slope, talus
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium derived from sedimentary rock and/or eolian deposits
derived from sedimentary rock

Typical profile

A - 0 to 11 inches: loamy sand
AC - 11 to 27 inches: loamy sand
C - 27 to 60 inches: sand

Properties and qualities

Slope: 1 to 9 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 (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Available water capacity: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: R049XB210CO - Sandy Foothill
Hydric soil rating: No

Minor Components

Pleasant

Percent of map unit: 1 percent

Custom Soil Resource Report

Landform: Depressions

Hydric soil rating: Yes

Other soils

Percent of map unit: 1 percent

Hydric soil rating: No

52—Manzanst clay loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2w4nr

Elevation: 4,060 to 6,660 feet

Mean annual precipitation: 14 to 16 inches

Mean annual air temperature: 50 to 54 degrees F

Frost-free period: 130 to 170 days

Farmland classification: Prime farmland if irrigated

Map Unit Composition

Manzanst and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Manzanst

Setting

Landform: Terraces, drainageways

Landform position (three-dimensional): Tread

Down-slope shape: Linear

Across-slope shape: Linear, concave

Parent material: Clayey alluvium derived from shale

Typical profile

A - 0 to 3 inches: clay loam

Bt - 3 to 12 inches: clay

Btk - 12 to 37 inches: clay

Bk1 - 37 to 52 inches: clay

Bk2 - 52 to 79 inches: clay

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

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

Calcium carbonate, maximum content: 15 percent

Gypsum, maximum content: 3 percent

Maximum salinity: Slightly saline (4.0 to 7.0 mmhos/cm)

Sodium adsorption ratio, maximum: 10.0

Custom Soil Resource Report

Available water capacity: High (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: C

Ecological site: R067BY037CO - Saline Overflow

Hydric soil rating: No

Minor Components

Ritoazul

Percent of map unit: 7 percent

Landform: Interfluves, drainageways

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R067BY042CO - Clayey Plains

Hydric soil rating: No

Arvada

Percent of map unit: 6 percent

Landform: Drainageways, interfluves

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R067BY033CO - Salt Flat

Hydric soil rating: No

Wiley

Percent of map unit: 2 percent

Landform: Interfluves

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R067BY002CO - Loamy Plains

Hydric soil rating: No

56—Nelson-Tassel fine sandy loams, 3 to 18 percent slopes

Map Unit Setting

National map unit symbol: 3690

Elevation: 5,600 to 6,400 feet

Mean annual precipitation: 12 to 14 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 135 to 155 days

Farmland classification: Not prime farmland

Map Unit Composition

Nelson and similar soils: 55 percent

Tassel and similar soils: 40 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nelson

Setting

Landform: Hills

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Calcareous residuum weathered from interbedded sedimentary rock

Typical profile

A - 0 to 5 inches: fine sandy loam

Ck - 5 to 23 inches: fine sandy loam

Cr - 23 to 27 inches: weathered bedrock

Properties and qualities

Slope: 3 to 12 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to high (0.06 to 2.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 10 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water capacity: Very low (about 2.8 inches)

Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: B

Ecological site: R067BY045CO - Shaly Plains

Other vegetative classification: SHALY PLAINS (069AY046CO)

Hydric soil rating: No

Description of Tassel

Setting

Landform: Hills

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Calcareous slope alluvium over residuum weathered from sandstone

Typical profile

A - 0 to 4 inches: fine sandy loam

C - 4 to 10 inches: fine sandy loam

Cr - 10 to 14 inches: weathered bedrock

Properties and qualities

Slope: 3 to 18 percent

Depth to restrictive feature: 6 to 20 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Medium

Custom Soil Resource Report

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

Calcium carbonate, maximum content: 10 percent

Available water capacity: Very low (about 1.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D

Ecological site: R067BY045CO - Shaly Plains

Other vegetative classification: SHALY PLAINS (069AY046CO)

Hydric soil rating: No

Minor Components

Other soils

Percent of map unit: 4 percent

Hydric soil rating: No

Pleasant

Percent of map unit: 1 percent

Landform: Depressions

Hydric soil rating: Yes

108—Wiley silt loam, 3 to 9 percent slopes

Map Unit Setting

National map unit symbol: 367b

Elevation: 5,200 to 6,200 feet

Mean annual precipitation: 12 to 14 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 135 to 155 days

Farmland classification: Not prime farmland

Map Unit Composition

Wiley and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wiley

Setting

Landform: Hills

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Calcareous silty eolian deposits

Custom Soil Resource Report

Typical profile

A - 0 to 4 inches: silt loam
Bt - 4 to 16 inches: silt loam
Bk - 16 to 60 inches: silt loam

Properties and qualities

Slope: 3 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 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
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: High (about 11.5 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R067BY002CO - Loamy Plains
Other vegetative classification: LOAMY PLAINS (069AY006CO)
Hydric soil rating: No

Minor Components

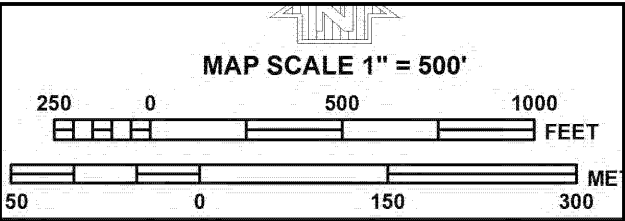
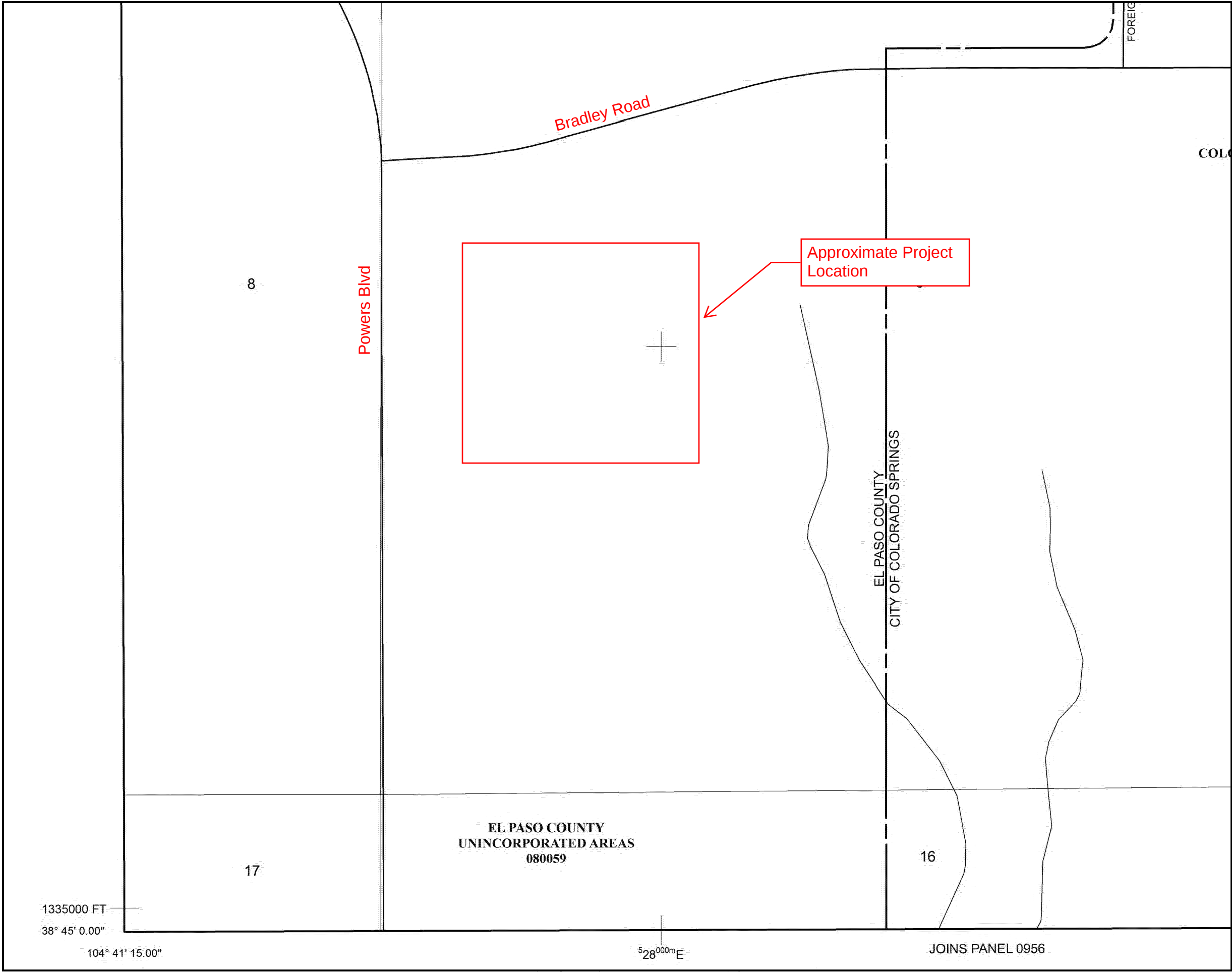
Other soils

Percent of map unit: 4 percent
Hydric soil rating: No

Pleasant

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

FEMA FIRM Floodplain Maps



NFIP

PANEL 0768G

FIRM
FLOOD INSURANCE RATE MAP
EL PASO COUNTY,
COLORADO
AND INCORPORATED AREAS

PANEL 768 OF 1300
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS

COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0768	G
EL PASO COUNTY	080059	0768	G

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
08041C0768G

MAP REVISED
DECEMBER 7, 2018

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

CDPHE General Permit

STATE OF COLORADO

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado
<http://www.cdph.state.co.us>



Colorado Department
of Public Health
and Environment

For Agency Use Only

Permit Number Assigned

COR03- _____

Date Received ____/____/____
Month Day Year

COLORADO DISCHARGE PERMIT SYSTEM (CDPS) STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES APPLICATION **PHOTO COPIES, FAXED COPIES, PDF COPIES OR EMAILS WILL NOT BE ACCEPTED.**

Please print or type. Original signatures are required. All items must be completed accurately and in their entirety for the application to be deemed complete. Incomplete applications will not be processed until all information is received which will ultimately delay the issuance of a permit. If more space is required to answer any question, please attach additional sheets to the application form. Applications must be submitted by mail or hand delivered to:

**Colorado Department of Public Health and Environment
Water Quality Control Division
4300 Cherry Creek Drive South
WQCD-P-B2
Denver, Colorado 80246-1530**

Any additional information that you would like the Division to consider in developing the permit should be provided with the application. Examples include effluent data and/or modeling and planned pollutant removal strategies.

PERMIT INFORMATION

Reason for Application: ☐ NEW CERT
☐ RENEW CERT EXISTING CERT # _____

Applicant is: ☐ Property Owner ☐ Contractor/Operator

A. CONTACT INFORMATION - NOT ALL CONTACT TYPES MAY APPLY * indicates required

***PERMITTEE (If more than one please add additional pages)**

***ORGANIZATION FORMAL NAME:** _____

1) *PERMITTEE the person **authorized to sign and certify** the permit application. This person receives all permit correspondences and is **legally responsible** for compliance with the permit.

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

This form must be signed by the Permittee (listed in item 1) to be considered complete.

Per Regulation 61 In all cases, it shall be signed as follows:

- In the case of corporations, by a responsible corporate officer. For the purposes of this section, the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the application originates.
- In the case of a partnership, by a general partner.
- In the case of a sole proprietorship, by the proprietor.
- In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official

- 2) **DMR COGNIZANT OFFICIAL (i.e. authorized agent)** the person or position authorized to **sign and certify reports required by the Division** including Discharge Monitoring Reports *DMR's, Annual Reports, Compliance Schedule submittals, and other information requested by the Division. The Division will transmit pre-printed reports (ie. DMR's) to this person. If more than one, please add additional pages. Same As 1) Permittee ☐

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Per Regulation 61 : All reports required by permits, and other information requested by the Division shall be signed by the permittee or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(i) The authorization is made in writing by the permittee

(ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a **named individual** or any individual occupying a **named position**); and

(iii) The written authorization is submitted to the Division

- 3) ***SITE CONTACT** local contact for questions relating to the facility & discharge authorized by this permit for the facility.

☐ Same As 1) Permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

- 4) *** BILLING CONTACT** if different than the permittee

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

5) OTHER CONTACT TYPES (check below) Add pages if necessary:

Responsible Position (Title): _____

Currently Held By (Person): _____

Telephone No: _____

email address _____

Organization: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

- | | | |
|---|--|---|
| ☐ Pretreatment Coordinator | ☐ Inspection Facility Contact | ☐ Stormwater MS4 Responsible Person |
| ☐ Environmental Contact | ☐ Consultant | ☐ Stormwater Authorized Representative |
| ☐ Biosolids Responsible Party | ☐ Compliance Contact | ☐ Other _____ |
| ☐ Property Owner | | |

B. Permitted Project/Facility Information

Project/Facility Name _____

Street Address or cross streets _____

(e.g., "S. of Park St. between 5th Ave. and 10th Ave.", or "W. side of C.R. 21, 3.25 miles N. of Hwy 10"; A street name without an address, intersection, mile marker, or other identifying information describing the location of the project is not adequate. For **linear projects**, the route of the project should be described as best as possible with the location more accurately indicated by a map.)

City, _____ Zip Code _____ County _____

Facility Latitude/Longitude— (approximate center of site to nearest 15 seconds using one of following formats

001A Latitude _____ . _____ Longitude _____ . _____ (e.g., 39.703°, 104.933°)
degrees (to 3 decimal places) or degrees (to 3 decimal places)

001A Latitude _____ ° _____ ' _____ " Longitude _____ ° _____ ' _____ " (e.g., 39°46'11"N, 104°53'11"W)
degrees minutes seconds degrees minutes seconds

For the approximate center point of the property, to the nearest 15 seconds. The latitude and longitude must be provided as either degrees, minutes, and seconds, or in decimal degrees with three decimal places. This information may be obtained from a variety of sources, including:

- ☐ **Surveyors or engineers** for the project should have, or be able to calculate, this information.
- ☐ EPA maintains a **web-based siting tool** as part of their Toxic Release Inventory program that uses interactive maps and aerial photography to help users get latitude and longitude. The siting tool can be accessed at www.epa.gov/tri/report/siting_tool/index.htm
- ☐ **U.S. Geological Survey topographical map(s)**, available at area map stores.
- ☐ Using a **Global Positioning System (GPS) unit** to obtain a direct reading.

Note: the latitude/longitude required above is not the directional degrees, minutes, and seconds provided on a site legal description to define property boundaries.

C. MAP (Attachment) If no map is submitted, the permit will not be issued.

Map: Attach a map that indicates the site location and that CLEARLY shows the boundaries of the area that will be disturbed. Maps must be **no larger** than 11x17 inches.

D. LEGAL DESCRIPTION

Legal description: If subdivided, provide the legal description below, or indicate that it is not applicable (**do not** supply Township/Range/Section or metes and bounds description of site)

Subdivision(s): _____ Lot(s): _____ Block(s): _____

OR

- ☐ Not applicable (site has not been subdivided)

E. AREA OF CONSTRUCTION SITE

Total area of project site (acres): _____ Area of project site to undergo disturbance (acres): _____

Note: aside from clearing, grading and excavation activities, disturbed areas also include areas receiving overburden (e.g., stockpiles), demolition areas, and areas with heavy equipment/vehicle traffic and storage that disturb existing vegetative cover

Total disturbed area of Larger Common Plan of Development or Sale, if applicable: _____
(i.e., total, including all phases, filings, lots, and infrastructure not covered by this application)

Provide both the total area of the construction site, and the area that will undergo disturbance, in acres. **Note:** aside from clearing, grading and excavation activities, disturbed areas also include areas receiving overburden (e.g., stockpiles), demolition areas, and areas with heavy equipment/vehicle traffic and storage that disturb existing vegetative cover (see construction activity description under the APPLICABILITY section on page 1).

If the project is part of a **larger common plan of development or sale** (see the definition under the APPLICABILITY section on page 1), the disturbed area of the total plan must also be included.

F. NATURE OF CONSTRUCTION ACTIVITY

Check the appropriate box(s) or provide a brief description that indicates the general nature of the construction activities. (The full description of activities must be included in the Stormwater Management Plan.)

- ☐ Single Family Residential Development
- ☐ Multi-Family Residential Development
- ☐ Commercial Development
- ☐ Oil and Gas Production and/or Exploration (including pad sites and associated infrastructure)
- ☐ Highway/Road Development (not including roadways associated with commercial or residential development)
- ☐ Other – Description: _____

G. ANTICIPATED CONSTRUCTION SCHEDULE

Construction Start Date: _____ Final Stabilization Date: _____

- **Construction Start Date** - This is the day you expect to begin ground disturbing activities, including grubbing, stockpiling, excavating, demolition, and grading activities.
- **Final Stabilization Date** - in terms of permit coverage, this is when the site is finally stabilized. This means that all ground surface disturbing activities at the site have been completed, and all disturbed areas have been either built on, paved, or a uniform vegetative cover has been established with an individual plant density of at least 70 percent of pre-disturbance levels. **Permit coverage must be maintained until the site is finally stabilized. Even if you are only doing one part of the project, the estimated final stabilization date must be for the overall project.** If permit coverage is still required once your part is completed, the permit certification may be transferred or reassigned to a new responsible entity(s).

H. RECEIVING WATERS (If discharge is to a ditch or storm sewer, include the name of the ultimate receiving waters)

Immediate Receiving Water(s): _____

Ultimate Receiving Water(s): _____

Identify the receiving water of the stormwater from your site. Receiving waters are any waters of the State of Colorado. This includes all water courses, even if they are usually dry. If stormwater from the construction site enters a ditch or storm sewer system, identify that system and indicate the ultimate receiving water for the ditch or storm sewer. **Note:** a stormwater discharge permit does not allow a discharge into a ditch or storm sewer system without the approval of the owner/operator of that system.

I. REQUIRED SIGNATURES (Both parts i. and ii. must be signed)

Signature of Applicant: The applicant must be either the owner and/or operator of the construction site. Refer to Part B of the instructions for additional information.

The application must be signed by the applicant to be considered complete. In all cases, it shall be signed as follows: (Regulation 61.4 (1e))

- a) In the case of corporations, by the responsible corporate officer is responsible for the overall operation of the facility from which the discharge described in the form originates
- b) In the case of a partnership, by a general partner.
- c) In the case of a sole proprietorship, by the proprietor.
- d) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, (a principal executive officer has responsibility for the overall operation of the facility from which the discharge originates).

STOP!: A Stormwater Management Plan must be completed prior to signing the following certifications!

i. STORMWATER MANAGEMENT PLAN CERTIFICATION

"I certify under penalty of law that a complete Stormwater Management Plan, has been prepared for my activity. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the Stormwater Management Plan is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for falsely certifying the completion of said SWMP, including the possibility of fine and imprisonment for knowing violations."

XX

Signature of Legally Responsible Person or Authorized Agent (submission must include original signature)

Date Signed

Name (printed)

Title

ii. SIGNATURE OF PERMIT LEGAL CONTACT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

"I understand that submittal of this application is for coverage under the State of Colorado General Permit for Stormwater Discharges Associated with Construction Activity **for the entirety of the construction site/project described and applied for, until such time as the application is amended or the certification is transferred, inactivated, or expired.**"

XX

Signature of Legally Responsible Person (submission must include original signature)

Date Signed

Name (printed)

Title

**DO NOT INCLUDE A COPY OF THE STORMWATER MANAGEMENT PLAN
DO NOT INCLUDE PAYMENT – AN INVOICE WILL BE SENT AFTER THE CERTIFICATION IS ISSUED.**