

Stormwater Management Plan

Owner/Operator(s):

Engineer Contact(s):

SWMP Preparation Date:

Project Start Date: _____ Project Completion Date:

APPROVED FOR THREE YEARS FROM THIS DATE	
City Engineer	Date
Director of Public Works	Date

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SECTION 1 – SITE DESCRIPTION

In this section, the preparer can gather some basic site information that will be helpful to the permittee later when you file for permit coverage.

For more information, see City of Evans MS4 Stormwater Management Program for Construction Projects (also known as the SWMP Manual), Chapter 2

Detailed information on determining your site's latitude and longitude can be found at www.epa.gov/npdes/stormwater/latlong

SITE LOCATION

Site location including section, township, range, and latitude/longitude to the nearest 15 seconds.

Project street location or nearest major cross streets.

If applicable, specific acknowledgement that the land is currently, or will ultimately be, owned or managed by the Parks & Recreation Department.

Project/Site Name: _____	
Project Street/Location: _____	
County of Subdivision: _____	
Latitude/Longitude: Use one of the three formats below and specify method.	
Latitude:	Longitude:
1. _____° _____' _____" N (deg/min/sec)	1. _____° _____' _____" W (deg/min/sec)
2. _____° _____' _____" N (deg/min/dec)	2. _____° _____' _____" W (deg/min/dec)
Method for determining latitude/longitude:	
<input type="checkbox"/> USGS topographic map (scale: _____)	<input type="checkbox"/> EPA Web <input type="checkbox"/> GP
<input type="checkbox"/> Other: Please specify _____	

Is this land currently or will it ultimately be owned or managed by the City of Evans Parks & Recreation Department? Yes No

CDPS Permit #*: _____ City of Evans SWQ Permit #*: _____

***Note: This is the unique identifying number assigned to your project by your permitting authority after you have applied for coverage under the appropriate construction permit.**

DESCRIPTION OF ADJACENT AREAS

Provide a description of adjacent areas such as residential areas, roads, streams, lakes, etc., which might be affected by the proposed project's land disturbing activity.

Provide adjacent area information: _____

NATURE AND PURPOSE OF CONSTRUCTIONACTIVITY

Describe of the nature and purpose of the construction activity, note any vertical construction.

- Residential
 - Commercial
 - Industrial
 - Road Construction
 - Linear
 - Utility
 - Overlot Grading
 - Over-Excavation
 - Vertical Construction
 - Other (please specify): _____
-

CONSTRUCTION SEQUENCE

The proposed sequence for major Projects should be described, including:

- An estimated project start date
- An estimated project end date
- The sequence of major construction Projects (Initial, interim, final or over-lot grading, utilities, vertical, paving, over – excavation, etc.).

This is expected to be a brief overview of the project as more detailed phasing information and specific BMPs will be addressed in later sections of the SWMP narrative report.

Estimated Project Start Date: _____ Estimated Project Completion Date: _____

Describe the major phases of construction: _____

AREA

The areas for the site should be described including any grading phasing which will need all of the information by phase, as well as for the overall project. This also includes over-lot grading in different phases to achieve the outcome of the project. This may be required to be modified by the contractor with a phasing plan submittal.

- A. Provide estimates of the total area of the site and the sub area within the site expected to undergo clearing, excavation or grading.
- B. Include an estimate of the excavation and fill volumes involved during the proposed construction.
- C. Include an estimate of how excavation and fill will be phased.
- D. Include an estimate of over-excavation areas and volumes (and type) and an estimate of offsite trucking volume (import and/or export).

Note: If exporting material to an area within the City of Evans city limits, the receiving site must have its own SWMP and may be required to have its own City of Evans Stormwater Quality Discharge Permit. If the export site is outside of City of Evans city limits, then the requirements of that local jurisdiction must be met and proof of a valid permit for the site will be required.

Total project area:		acres
Construction site area to be disturbed:		acres
Construction site over excavation area to be disturbed:		acres
Export/Import Volume		
Phase Area	Cut/Fill	Net

Description of phasing for sites disturbing more than 40 acres: _____

TOPOGRAPHY, SOILS, AND RAINFALL DATA

Provide a summary describing the soil, the soil type, and hydrologic soil group, permeability, texture, soil erosion potential, depth, soil structure, etc. and potential impacts of the soil type on the quality of any stormwater discharge from the site.

A description of the topography of the site, existing site conditions, drainage patterns, and existing site slopes should also be included.

Note: A soils map showing the site limits and excerpts regarding the soils information shall be placed in the SWMP narrative report appendices.

Soil type(s): _____

Description	Result	Location of Occurrence
Highest Elevation:		
Lowest Elevation:		
Steepest Slope:		
Average Slope:		

Slopes (describe current slopes and note any changes due to grading or fill projects): _____

Drainage Patterns (describe current drainage patterns and note any changes dues to grading or fill projects): _____

Normal Monthly Precipitation Table in Inches

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dev
0.51	0.49	1.28	1.93	2.32	1.56	2.16	1.82	1.14	0.99	0.98	0.63

Adapted from: <http://www.ncdc.noaa.gov/oa/climate/online/ccd/nrmlprcp.html>

Imperviousness and Runoff City of Evans coefficients:

- Calculate the percentage of impervious surface area before and after construction
- Calculate the runoff City of Evans coefficients before and after construction.

Percentage impervious area before construction:		%
Runoff City of Evans coefficient before construction (2-yr. design storm):		
Percentage impervious area after construction:		%
Runoff City of Evans coefficient after construction (2-yr. design storm):		

EXISTING VEGETATION

Provide a description of the existing vegetation at the site and an estimate of the percent vegetative cover density prior to disturbance in an average square yard of the site. This requirement does not encompass hard surfaces or damaged areas. The consultant may have to evaluate vegetation from a nearby area if there has already been disturbance.

A plan showing the existing major trees (4" diameter trunks and larger), tree masses, and shrub masses should be provided.

Existing Vegetation on the site: _____

Pre-disturbance vegetation density: _____

Discuss tree protections: _____

POTENTIAL SOURCES OF POLLUTION

Identify and list the proposed location and description of any potential pollution sources anticipated to be used during the project, such as portable toilets, vehicle fueling, grout/cement mixers, storage of fertilizers, paints or chemicals and stockpiles, etc.

Materials of concern may include, but are not limited to, raw materials, fuels, metallic products, hazardous substances designated under Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), any chemical the facility is required to report pursuant to Section 313 of title III of the Superfund Amendments and Reauthorization Act (SARA), fertilizers, pesticides, ash, slag, sludge concrete washout, paints, solvents, and waste piles.

Note: This is expected to be a brief list with detailed information being addressed in later sections of the SWMP narrative report.

Trade Name, Material, or Operation	Stormwater Pollutants	Potential Location
Concrete materials and Concrete waste management	Concrete	Entire site
Concrete curing	Curing compound	Areas of concrete construction
Demolition and debris disposal	Trash, sediment, various other contaminants	Existing building areas

Dewatering and ponded water management	Ground water and ponded water containing various other pollutants	Entire site
Form oil and concrete forms	Form oil	Building construction
Generators	Oil, gasoline, etc.	Entire site
Grading operations (clearing, excavating, etc.)	Sediment	Entire site
Hazardous wastes	Fire retardant, acid wash, graffiti prevention liquid, processed water	Building construction
HVAC	Debris, glue, etc.	Building construction
Insulation	Fiberglass, other debris	Building construction
Landscape products	Fertilizers, herbicides, pesticides, fungicides, etc.	Entire site
Masonry	Cement, grout, masonry mixers, sand stockpiles, etc.	Building construction
Material Delivery	Other materials	Entire site
Painters	Paint, primers, stains, glue	Building construction
Paving operations	Asphalt, tar, road base, lime	Roadways and parking areas
Plumbing	Trash, glue, solder	Building construction
Processed Water	Any number of chemicals or other toxins	Entire site
Roofing	Asphalt, wood, concrete	Building construction
Sanitary waste management	Sanitary waste	Building construction and staging areas
Soil stockpiling	Sediment	Entire site
Stabilized staging/haul routes	Sediment, fuel, oil	Entire site
Stucco, plastering, drywalling	Drywall, plaster, tool cleaning, etc.	Building construction
Trash	Debris, bacteria, various chemicals, etc.	Building construction and staging areas
Utility excavations	Sediment, fuel, oil	Entire site
Vehicle and equipment maintenance, cleaning, or leaks	Fuel, oil, grease, chemicals, hydraulic oil	Entire site

Potential pollutants and sources to stormwater runoff: _____

Trade Name, Material, or Operation	Stormwater Pollutants	Potential Location
Bedding stockpiles	Sediment	Entire Site
Boring operations, concrete cutting operations or other operations that use water	Sediment, slurry, concrete fines, processed water, etc.	Bore sites, site perimeters, pothole locations, etc.
Carpentry and framing	Wood, solvents, stains, debris	Building construction

NON-STORMWATER DISCHARGES

Identify and list the location and description of any anticipated non-stormwater components of the discharge, such as springs (State permit required), potable water for dust suppression, landscape irrigation return flow, pipeline dewatering (i.e., waterline flushing and testing) diverted stream flows, flows from wetlands, firefighting projects, hydrant blow-offs, building power-washing where detergents are not used, construction dewatering of groundwater (State permit required), uncontaminated air conditioning or compressor condensate, foundation or footing drains where flows are not contaminated with process materials such as solvents (State permit may be required), or other discharges specifically authorized by a separate National Pollutant Discharge Elimination Systems (NPDES) permit or a separate Colorado Discharge Permit System (CDPS) permit etc.

Identify all allowable sources of non-stormwater discharges that are not identified. The allowable non-stormwater discharges identified might include those in the table below.

Identify measures used to eliminate or reduce these discharges and the BMP's used to prevent those discharges from becoming contaminated.

Check if Applicable to Site	List of Potential Non-Stormwater Discharges	Management of Discharge
	Water used to wash vehicles where detergents are not used	
	Water used to control dust	
	Potable water including uncontaminated water line flushing	
	Routine external building wash down that does not use detergents	
	Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed), and where detergents are not used	
	Uncontaminated air conditioning or compressor condensate	
	Uncontaminated ground water or spring water	
	Foundation or footing drains where flows are not contaminated with process materials such as solvents	
	Uncontaminated excavation dewatering	
	Landscape irrigation	
	Potable water for firefighting projects	
	Diverted channels or streams	

Check if Applicable to Site	List of Potential Non-Stormwater Discharges	Management of Discharge
	Flows from wetlands	
	Sanitary sewer/plumbing line testing	

RECEIVING WATERS

List the name of all potential receiving water (s) and the size, type and location of any outfall. If the discharge is to a municipal storm sewer system, then provide the name of that system, the location of the storm sewer discharge, and the ultimate receiving water(s). State whether or not there are wetlands, the 100-year floodplain status (i.e. if the site is within a floodway, near a flood plain or not within a flood zone), if the receiving water is impaired or not, and if there are any stream crossings proposed.

Note: Floodplain maps shall be provided in the SWMP narrative report appendices and shall show the site in relation to the floodplain.

List the waterbody(s) that would receive stormwater from your site, including streams, rivers, lakes, and wetlands. Describe each as clearly as possible, such as *Ashcroft Draw, a tributary to the South Platte River*, and so on.

Indicate the location of all waters, including wetlands, on the site map.

Note any stream crossings or stream diversions, if applicable.

List the downstream storm inlets, storm sewer system or drainage system that stormwater from your site could discharge to and the waterbody(s) that it ultimately discharges to.

If any of the waterbodies above are impaired and/or subject to Total Maximum Daily Loads (TMDLs), please list the pollutants causing the impairment and any specific requirements in the TMDL(s) that are applicable to construction sites. Your SWMP should specifically include measures to prevent the discharge of these pollutants.

Description of storm inlets and storm sewer systems: _____

Description of impaired waters or waters subject to TMDLs: _____

100-Year Floodplain Status: _____

Description of wetlands: _____

Other: _____

Site Features and Sensitive Areas to be Protected

Describe unique site features including streams, stream buffers, wetlands, specimen trees, natural vegetation, steep slopes, or highly erodible soils that are to be preserved.

Describe measures to protect these features.

Include these features and areas on your SWMP design drawings. _____

Other Applicable Federal, State or Local Programs, Regulations or Restrictions

State any other regulations that are affecting the site (i.e. Regulation 72, Consent Decrees, etc.).

ENDANGERED SPECIES CERTIFICATION

State whether or not there are any endangered species or critical habitats on or near the site. If so, then describe the impacts and the measures being taken to address that impact and supply documentation in the SWMP narrative report appendices.

Are endangered or threatened species and critical habitats on or near the project area?

Yes No

If yes, describe the species and/or critical habitat and provide reference to other documents as appropriate: _____

HISTORIC PRESERVATION

State whether or not there are any historic sites on or near the site. If so, then describe the impacts and the BMP measures being taken to address that impact.

Are there any historic sites on or near the construction site?

Yes No

If yes, describe or refer to documentation that determines the likelihood of an impact on this historic site and the steps taken to address that impact: _____

SECTION 2 – DESIGN DRAWINGS

Approved design drawings shall be kept with the approved narrative report (this document) in the field and must be kept current. See City of Evans Stormwater Management Program for Construction Projects Manual Chapter 3 for more information regarding Living Documents. For most projects, a series of site maps is recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or for more complicated sites show the major phases of development.

SWMP design drawings are required to indicate the types, locations, and extents of BMPs proposed for installation on the project site. For more information and requirements, see Chapter 2.

SECTION 3 – STORMWATER MANAGEMENT CONTROLS

This section shall describe the stormwater management controls that will be used to control pollutants in stormwater discharge during construction activity.

SWMP ADMINISTRATOR AND IMPORTANT CONTACTS

List contact names and phone numbers for the SWMP Administrator, alternates, owner, developer, etc.

Owner/Operator(s):
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of Control (if more than 1 operator at site):

Project Manager(s) or Site Supervisor(s):
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of Control (if more than 1 operator at site):

SWMP Administrator Contact(s):
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of Control (if more than 1 operator at site):

This SWMP was Prepared by (the Colorado Licensed Engineer):
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:

Emergency 24-Hour Contact:
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of Control (if more than 1 operator at site):

Subcontractor(s):
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of Control (if more than 1 operator at site):

Other:
Company or Organization Name:
Name:
Address:

City, State, Zip Code:
Telephone Number:
Email:
Area of Control (if more than 1 operator at site):

Other:
Company or Organization Name:
Name:
Address:
City, State, Zip Code:
Telephone Number:
Email:
Area of Control (if more than 1 operator at site):

IDENTIFICATION OF POTENTIAL POLLUTANT SOURCES

All potential pollutant sources, including materials and projects, at a site must be evaluated for the potential to contribute pollutants to stormwater discharges.

Identify and describe the sources of potential pollutants to stormwater discharges. At a minimum, each of the following sources and projects shall be evaluated for the potential to contribute pollutants to stormwater discharges.

Applicable to Site (Y, N, Maybe)	Sources of Potential Pollutants to Stormwater Discharges	Applicable to Site (Y, N, Maybe)	Sources of Potential Pollutants to Stormwater Discharges
	All disturbed and stored soils (including borrow areas, stockpiles, haul routes, and over-excavation)		Routine maintenance projects involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.
	Vehicle tracking controls and clean up		On-site waste management practices (waste piles, liquid wastes, dumpsters, etc.)
	Management of contaminated soils		Concrete truck/equipment washing, including the concrete truck chute, pump truck primary and associated fixtures and equipment
	Loading and unloading operations, including access points and protection of existing BMPs		Dedicated asphalt and concrete batch plants

	Outdoor storage areas (building materials, fertilizers, chemicals, etc.)		Non-industrial waste sources such as worker trash and portable toilets
	Vehicle and equipment maintenance and fueling		Other areas or procedures where potential spills can occur
	Significant dust or particulate generating processes (including haul routes, masonry mixing, and silos)		Stormwater or groundwater dewatering

Applicable to Site (Y, N, Maybe)	Sources of Potential Pollutants to Stormwater Discharges	Applicable to Site (Y, N, Maybe)	Sources of Potential Pollutants to Stormwater Discharges
	All disturbed and stored soils (including borrow areas, stockpiles, haul routes, and over-excavation)		Routine maintenance projects involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.
	Vehicle tracking controls and clean up		On-site waste management practices (waste piles, liquid wastes, dumpsters, etc.)
	Management of contaminated soils		Concrete truck/equipment washing, including the concrete truck chute, pump truck primary and associated fixtures and equipment

Applicable to Site (Y, N, Maybe)	Sources of Potential Pollutants to Stormwater Discharges	Applicable to Site (Y, N, Maybe)	Sources of Potential Pollutants to Stormwater Discharges
	Power washing of building using detergents or other chemicals/solvents		
	Building/vertical construction (including paints, solvents, drywall, fire retardant, etc.)		

BMPS FOR STORMWATER POLLUTION PREVENTION

This section of the SWMP narrative report shall include a narrative description of the appropriate controls and measures that will be implemented before, during and after construction projects at the project site to manage and control the runoff of pollutants.

The SWMP narrative report shall clearly describe the relationship between the phases of construction, and the implementation and maintenance of BMP controls and measures. For example, the report must indicate which controls will be implemented during each of the

following phases of construction: clearing and grubbing for perimeter controls, installation of initial BMPs, clearing and grubbing, over-lot grading, installation of interim BMPs, site construction, utility construction, vertical construction, other pertinent construction phases, final grading, stabilization, removal of BMPs, and permit closeout.

STRUCTURAL PRACTICES

Clearly describe the initial/interim, post-paving, and permanent structural site management practices to control erosion and sediment transport. Practices may include, but are not limited to silt fences, diversion dikes, sediment traps, sediment basins, temporary slope drains, inlet protection, outlet protection, check dams, curb/rock socks, vehicle tracking control pads, sediment control logs, compacted earthen berm, and terracing.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

[Repeat as needed](#)

NON-STRUCTURAL PRACTICES

Clearly describe initial/interim, post-paving, and permanent stabilization practices, including site specific scheduling of the implementation of these practices. Site plans should ensure that existing vegetation is preserved where possible and that all disturbed areas are stabilized. Non-structural practices may include, but are not limited to: temporary seeding, permanent seeding, mulching, sod stabilization, vegetative buffer strips, tree protection, landscaping, erosion control blankets/matting, soil retention matting, surface roughening, dust suppression, street sweeping (required weekly at a minimum), seasonal schedule, and preservation of mature vegetation.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

[Repeat as needed](#)

PHASE CONSTRUCTION ACTIVITY AND BMP IMPLEMENTATION

This section shall describe the relationship between the phases of construction, and the implementation and maintenance of BMP controls and measures. For example, indicate which controls will be implemented during each of the following phases of construction: prior to clearing and grubbing for perimeter controls (installation of initial BMPs), clearing and grubbing, over-lot grading, installation of interim BMPs, site construction, utility construction, vertical construction, other pertinent construction phases, final grading, stabilization, removal of BMPs, and Permit closeout.

Clearly describe the various phases of construction and the implementation of BMPs to be used during each phase. Examples of project phases may include, but are not limited to, demolition, clearing and grubbing, over-lot grading, over-excavation, road construction, utility installations,

vertical construction, fine grading, and final stabilization. The description for a particular phase may have sub-phases. For example, the over-lot grading of an 80-acre site may have to describe multiple sub-phases for the 40-acre disturbance limitation. Another example would be vertical construction phase may describe sub-phases of the construction such as grading, foundations, framing, finishing, and stabilization. For more information, see Chapter 2, Section 2.2.)

Note: Some construction information may need to be added once a contractor is involved. See the Manual and below for more information.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

Repeat as needed

OVER-LOT GRADING SPECIFIC PRACTICES

Over-lot grading specific practices should address items such as: surface roughening, blanketing, terracing, mulching, temporary seeding, permanent seeding, temporary sediment pond construction and removal, phasing, haul routes, disturbance limits, rough cut street controls, etc.

Address haul routes may be designated on the SWMP updates and shall take into consideration drainage, erosion and sediment control BMPs, along with interim stabilization measures.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

Repeat as needed

Discuss interim stabilization may be provided via plan amendment by the contractor and the engineer at the Erosion Control Kick-Off meeting. These measures shall be provided with timeframes and down gradient controls.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

Repeat as needed

Temporary drainage BMPs (diversion ditches, sediment traps or sediment basins) shall be maintained at all times.

Discuss timing and procedural requirements for implementation, maintenance and removal of these items during this period of construction.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

Repeat as needed

VERTICAL CONSTRUCTION REQUIREMENTS
(See Appendix for Table of Required Information)

Staging areas change during construction regularly. Therefore, if “conex” boxes are to be utilized and if they are to include liquid pollutants, then a redundant BMP measure must be provided

Site drainage will need to be maintained during vertical construction. Review conditions to ensure that it will continue to work as shown during the grading/utility timeframes.

Provide redundant BMP’s for generators and mobile concrete washouts to protect from fuel/hydraulic leaks

Continuously review the down gradient BMP’s within the impervious and disturbed areas to ensure that conveyances, inlets and outlets are protected appropriately during this phase.

Areas of disturbance outside of the building envelope shall still require BMPs.

Continuously review the timing/phasing of the project to ensure the appropriate BMPs are implemented as construction continues. Deletion of BMPs shall require different measures to be implemented upon deletion.

BMPs for keeping impervious surfaces clean may need to be enhanced or added to as construction continues.

Review and implement BMP measures to control roof drainage. This becomes a point source and may cause extensive erosion on site.

OPTIONAL SECTION

A plan amendment from the contractor shall be required to be submitted to the engineer of record and City of Evans City Engineer three (3) business days prior to the Erosion Control Kick-Off Meeting. This submittal shall provide narrative information and the associated details required for vertical construction BMPs (structural and non-structural) that will be implemented during this phase of construction.

Provide a mixing station detail/area for masonry/brick. If the site is going to bring in silos for masonry mixing, wind protection will be required to minimize the maximum extent practicable the dust from impacting adjacent buildings and streets.

Saw cutting station detail/area

Options for handling paints, solvents, glues (i.e., utilize the CWS or provide alternative)

Provide physical and procedural BMPs for clean up along the building during the installation of brick, stone, or stucco

Access may be required around the building, defining a haul route may be necessary and denote stabilization needs on this proposed haul route

Address waste handling procedures for drywall, painters, carpet layers etc.

- Stream diversion method
- Cranes when access is required around the building and may impact BMPs, relocation may be required

MATERIAL HANDLING AND SPILL PREVENTION

This section shall describe any procedures and locations for all practices implemented at the site that will be used to minimize impacts from identified potential pollutant sources. BMPs need to address many different pollutant sources that include, but are not limited to, exposed storage of construction materials, liquid contaminants, contaminated soils management, fueling procedures, redundant measures for any spill or leak sources, and equipment maintenance procedures. Projects involving potential for spills shall have spill prevention and spill response procedures identified.

Identify and describe how the sources of potential pollutants to stormwater discharges will be controlled through BMP selection and implementation. The information provided may address frequency, seasonal considerations, characteristics of the area and surface type, primary and secondary containment, proximity to drainageways and stormwater facilities.

BMP Description	
Intended Use/Purpose	
Location(s)	

[Repeat as needed](#)

SPILL RESPONSE, CLEANUP, AND REMOVAL PROCEDURES

Upon detection of any spill, the first action to be taken is to ensure personal safety. All possible ignition sources, including running engines, electrical equipment (including cellular telephones, etc.), or other hazards will be immediately turned off or removed from the area. The extent of the spill and the nature of the spilled material will be evaluated to determine if remedial actions could result in any health hazards, escalation of the spill, or further damage that would intensify the problem. If such conditions exist, a designated employee will oversee the area of the spill and the construction SWMP Administrator will be notified immediately.

The source of the spill will be identified and, if possible, the flow of pollutants stopped if it can be done safely. However, no one should attend to the source or begin cleanup of the spill until **ALL** emergency priorities (fire, injuries, etc.) have been addressed.

A. Small Spills

Small spills (usually <5 gallons) consist of minor quantities of gasoline, oil, anti-freeze, or other materials that can be cleaned up by a single employee using readily available materials.

The following procedures should be used for clean-up of small spills:

1. Ensure personal safety, evaluate the spill, and if possible, stop the flow of pollutants.
2. Contain the spread of the spill using absorbents, portable berms, sandbags, or other available measures.
3. Spread absorbent materials on the area to soak up as much of the liquid as possible and to prevent infiltration into the soil.
4. Once the liquids have been absorbed, remove all absorbents from the spill and place the materials in a suitable storage container. On paved areas, wipe any remaining liquids from the surface and place the materials in a storage container. Do not spray or wash down the area using water. For open soil areas, excavate any contaminated soil as soon as possible and place the soil in a suitable storage container. All materials will then be transported off-site for disposal.
5. If immediate transfer and storage of the contaminated soil is not practical, excavate and place the contaminated soil on a double thickness sheet of 3-mil or higher polyethylene film. In addition, a small berm should be formed around the outer edges of the soil stockpile, underneath the polyethylene film, to ensure that contaminants are not washed from the site during precipitation events and that materials do not seep through the berm.
6. Record all significant facts and information about the spill, including the following:
 - Type of pollutant
 - Location
 - Apparent source
 - Estimated volume
 - Time of discovery
 - Actions taken to clean up spill
7. Notify the SWMP Administrator of the spill and provide the information from Item #6. The SWMP Administrator will then contact the City Engineer or designee.

B. Medium to Large Spill

Medium to large spills consist of larger quantities of materials (usually >5 – 25 gallons) that are used on site that cannot be controlled by a single employee. Generally, a number of facility personnel will be needed to control the spill and a response may require the suspension of other facility projects.

The following procedure shall be used for the cleanup of medium to large spills:

1. Ensure personal safety, evaluate the spill, and if possible, stop the flow of pollutants.
2. Immediately dispatch a front-end loader or similar equipment to the spill and construct a berm or berms down gradient of the spill to minimize the spread of potential pollutants. On paved surfaces, portable berms, sandbags, booms, or other measures will be used to control the lateral spread of the pollutants.

3. When the spread of the spill has been laterally contained, contact the SWMP Administrator or designated facility employee and provide them information on the location, type, and amount of spilled material, and a briefing on the extent of the spread and measures undertaken to contain the contaminants.
4. Depending on the nature of the spill, mobilize additional resources as needed to contain the contaminants.
5. Cleanup will commence when the lateral spread has been contained and the notification to the SWMP Administrator has been made.
6. Freestanding liquid will be bailed or pumped into 55-gallon storage drums, steel tanks, or other suitable storage containers. When all the liquid has been removed from the pavement or soil layer, absorbents will be applied to the surface and transferred to the storage containers when they have soaked up as much of the spill as possible.
7. On paved surfaces, the remaining contaminants will be removed to the extent possible, with rags, sweeping, or similar measures. The area of the spill will not be sprayed or washed down using water. Any contaminant-soaked materials will be placed into the storage containers with the other absorbents.
8. The remaining contaminated soils will be excavated and loaded into a dump truck(s) for disposal off-site at a designated facility. If transport off-site is not immediately available, the remaining soils will be stockpiled on a double thickness sheet of 3-mil or higher polyethylene film. In addition, a small berm will be formed around the outer edges of the soil stockpile, underneath the polyethylene film, to ensure that contaminants are not washed from the site during precipitation and do not seep through the berm.
9. Record all significant facts and information about the spill, including the following:
 - Type of pollutant
 - Location
 - Apparent source
 - Estimated volume
 - Time of discovery
 - Actions taken to clean up spill
10. Provide the SWMP Administrator (or designated employee) with the information from Item #9. The SWMP Administrator will then contact the City of Evans Fire Protection District.

NOTIFICATIONS

Notification to the Colorado Department of Public Health & Environment (CDPHE) and the City of Evans is required if there is any release or suspected release of any substance, including oil or other substances that spill into or threaten State waters. Unless otherwise noted, notifications are to be made by the SWMP Administrator and only after emergency responses related to the release have been implemented. This will prevent misinformation and assures that notifications are properly conducted.

The notification requirements are as follows:

- A. Spills into/or Threatens State Waters:
Immediate notification is required for releases that occur beneath the surface of the land or impact or threaten waters of the State of threaten the public health and welfare. Notifications that will be made are:
1. For any substance, regardless of quantity, contact CDPHE at 1-877-518-5608. Be prepared to:
 - Give your name.
 - Give location of spill (name of city).
 - Describe the nature of the spill, type of products, and estimate size of spill.
 - Describe type of action taken thus far, type of assistance or equipment needed.
 2. For any quantity of oil or other fluids, call the National Response Center at 1-800-424-8802. Be prepared to:
 - Give your name.
 - Give location of spill (name of city and state).
 - Describe the nature of the spill, type of product, and estimate size of spill.
 - Describe type of action taken thus far, type of assistance or equipment needed.
- B. Reportable Quantity Spill on Land Surface:
Immediate notification is required of a release upon the land surface of an oil in quantity that exceeds 25 gallons, or of a hazardous substance that equals or exceeds 10 pounds or its reportable quantity under Section 101(14) of the Comprehensive Environmental Response, Compensation Liability Act (CERCLA) of 1980 as amended (40 CFR Part 302) and Section 329 (3) of the Emergency Planning and Community Right to Know Act of 1986 (40 CFR Part 355) whichever is less. This requirement does apply at a minimum to the substances listed in Table A below.

TABLE A

Substances Requiring Notification	Reportable Quantity
Motor Oil	25 Gallons
Hydraulic Oil	25 Gallons
Gasoline/Diesel Fuel	25 Gallons

The notification procedure to be followed is:

- a) Give your name.
 - b) Give location of spill (name of city and state).
 - c) Describe nature of the spill, type of product, and estimate size of spill.
 - d) Describe type of action taken thus far, type of assistance or equipment needed.
1. Notification is not required for release of oil upon the land surface of 25 gallons or less that will not constitute a threat to public health and welfare, the environmental or a threat of entering the waters of the State.
 2. Notification, as required in paragraphs 1 and 2 above, will be made to the CDPHE using the 24-hour telephone number to report environmental spills. All information known about the

release at the time of discovery is to be included, such as the time of occurrence, quantity and type of material, location and any corrective or clean-up actions presently being taken. Table B lists these phone numbers.

SPILL RESPONSE CONTACTS

It is the responsibility of the SWMP Administrator to contact the City of Evans, CDPHE, and/or the National Response Center.

- The National Response Center is to be contacted when a release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR 110, 4- DFR 117, or 40 CFR 302 occurs during a 24-hour period.
- Notification to the CDPHE and City of Evans is required if there is any release or suspected release of any material, including oil or hazardous substances that spill into or threaten state waters.

TABLE B

Emergency Notification Contacts

Name/Agency	Number
City of Evans Fire Protection District	911
City of Evans Police Department	911
Ambulance	911
Hospital	911
National Response Center	1-800-424-8802
CDPHE – Report Environmental Spills (24/7)	1-877-518-5608
City of Evans – Engineering Division	(970) 475-1113
City of Evans – Water Department	(970) 475-1181

Also contact SWMP Administrator and Project Owner Notification to the CDPHE and City of Evans is required if there is any release or suspected release of any material, including oil or hazardous substances that spill into or threaten state waters.

REPORTS

The CDPHE and City of Evans require written notification of a spill or discharge of oil or other substance that may cause pollution of the waters of the State of Colorado. A written report must be submitted to the Water Quality Control District (WQCD) and the City Engineer or designee within five (5) days after becoming aware of the spill or discharge.

The CDPHE and City of Evans require a written final report within fifteen (15) days for all releases of an oil or hazardous substance that require implementation of a contingency plan. The CDPHE and City of Evans may also require additional reports on the status of the clean up until any required remedial action has been complete.

Written notification of reports must contain at a minimum:

- Date, time, and duration of the release.
- Location of the release.
- Person or persons causing and responsible for the release.
- Type and amount of oil or substance released.

- Cause of the release.
- Environmental damage caused by the release.
- Actions taken to respond, contain, and clean up the release.
- Location and method of ultimate disposal of the oil or other fluids.
- Actions taken to prevent a reoccurrence of the release.
- Any known or anticipated acute or chronic health risks associated with the release.
- When appropriate advice regarding medical attention necessary for exposed individuals.

DEDICATED CONCRETE OR ASPHALT BATCH PLANTS

Describe measures to control stormwater pollution from dedicated concrete batch plants or dedicated asphalt batch plants covered by the SWMP.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

[Repeat as needed](#)

VEHICLE TRACKING CONTROL

Describe all practices implemented at the site to control potential sediment discharges from vehicle tracking. Practices must be implemented for all areas of potential vehicle tracking, and can include minimizing site access; street sweeping or scraping; tracking pads; stabilized staging and parking areas; requiring that vehicles stay on paved areas on-site; wash racks; contractor education; and/or sediment control BMP's, etc.

BMP Description: Mandatory sweeping of all internal and adjacent external paved areas is required on a weekly basis at a minimum. This applies until Initial Close-Out acceptance. At that time, it will be on an as-needed basis.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

[Repeat as needed](#)

WASTE MANAGEMENT AND DISPOSAL, INCLUDING CONCRETE WASHOUT

Clearly describe the practices implemented at the site to control stormwater pollution from all construction site wastes (liquid and solid), including concrete washout projects and liquid waste washouts, dumpsters, worker trash, and portable toilets.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

Repeat as needed

BMP SPECIFICATIONS

Construction BMP details for installation and maintenance shall utilize the Urban Drainage Details adopted by the City of Evans as Standard Details located in Urban Drainage Manual Vol 3 (http://www.udfcd.org/downloads/down_critmanual.htm), an approved variance, or an approved plan amendment. All approved variances / plan amendments must be documented in the SWMP. It is understood that not all details in the City of Evans SWMP Manual will be used on this project site, but that all details are available for implementation if unforeseen circumstances warrant their use.

Proper procedures must be used to update the living document and get approval as documented in the City of Evans SWMP Manual. All physical BMPs require a detail to show installation and maintenance information. If a detail is not available through the manufacturer, then one must be created by the preparer of this SWMP narrative report.

GROUNDWATER AND STORMWATER DEWATERING

The SWMP shall clearly describe the practices to be implemented at the site to control stormwater pollution from the dewatering of groundwater or stormwater from excavations, wells, etc.

For any construction dewatering of stormwater from construction areas, describe the BMPs to be used to control additional erosion and transport of sediment.

Note: This City of Evans Stormwater permit does not authorize dewatering of groundwater. A separate State permit is required for this activity.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

Repeat as needed

DEVELOPER/BUILDER SPECIFIC PRACTICES

Include a description of standard practices of the company for whom this SWMP is being developed. At a minimum it shall include:

- Standard practices for construction operations during wet weather conditions and winter weather conditions
- Methods used to obtain compliance from sub-contractors (i.e., fines, education, etc.). Stormwater education policies for educating personnel and subcontractors
- Company Standard Operating Procedures as they relate to stormwater

- management (as appropriate)
- Describe any standard construction practices that will be used on the site such as material loading and unloading practices, lot controls, lot access etc.

Note: Any practices requiring a variance that are discussed here must reference the variance section, and must be requested in the variance section, or they will be considered unapproved and not allowed.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

Repeat as needed

SECTION 4 – FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT

FINAL STABILIZATION MEASURES

Include a description of the proposed measures to be used to achieve final stabilization and long-term stormwater control. Revegetation with seeding and mulching, revegetation with seeding with erosion control blankets, landscaping, green roofs, permeable paving, permanent water quality ponds and permanent outlet protection are examples of final stabilization measures.

SEED MIX INFORMATION

Provide the name of the City of Evans standard seed mix(es) that may be appropriate for the site and the soils anticipated for the site and the preferred method(s) for protecting the seed. If the site is not using a City of Evans standard seed mix, then a variance request must be submitted, and the preferred seed mix must be provided with the application rates.

FINAL STABILIZATION NOTES

See Chapter 5 of the Rules and Regulations for more information.

Final stabilization is reached when all soil disturbing projects at the site have been completed, and uniform vegetative cover has been established with a density of at least 70% of pre-disturbance levels, or equivalent permanent physical erosion reduction methods have been employed.

Vegetative coverage density does not apply to paved areas, walks, buildings, or other hard surface impermeable areas.

Establishment of a vegetative cover capable of providing the erosion control equivalent to pre-existing conditions at the site can be considered final stabilization (i.e. landscape rocks, mulch, shrubs, etc.). This determination will be made by the City Engineer or designee prior to the close-out of the permit.

BMP Description	
Intended Use/Purpose	
Appropriate Installation Timing	
Appropriate Removal Timing	

Repeat as needed

SECTION 5 – INSPECTIONS AND MAINTENANCE

This section shall describe procedures to inspect and maintain, in good effective operating condition, the vegetation, erosion, and sediment control measures and all other protective measures identified in the plan.

The following are the required frequencies of inspections:

- A. Prior to initial closeout acceptance: Permittee shall self-inspect the site at least every seven (7) calendar days and within twenty-four (24) hours after the end of any precipitation event or snowmelt event that results in runoff and causes surface erosion, except as allowed in item C below.
- B. Following Initial Closeout Acceptance and until permit closeout: Permittee shall self-inspect the site at least every thirty (30) calendar days, and within twenty-four (24) hours after the end of any precipitation event or snowmelt event that results in runoff and causes surface erosion
- C. Post-Precipitation Event Inspections for Temporarily Idle Sites: If a site is temporarily idle and no construction projects will occur during the forty-eight (48) hours following a storm event, the post-precipitation event (including snowmelt) inspection shall be conducted prior to commencing construction projects on the site, but no later than seventy-two (72) hours following the storm event.

Describe all other procedures necessary to inspect and maintain BMPs on this site. _____

SECTION 6 – PROBABLE COST FOR INSTALLATION OF BMPS

The standardized probable cost form shall include costs for required maintenance during the construction phase and shall establish the required Fiscal Security amount.

Notes: City of Evans projects do not require fiscal security. The forms are located in the Appendix of this SWMP narrative report.

List the total cost and the fiscal security amount, which is equal to the 25% maintenance cost amount of the higher of the two forms.

Initial BMP Total Cost:	\$
Initial BMP Maintenance Cost:	\$
Post-Paving BMP Total Cost:	\$
Post-Paving BMP Maintenance Cost:	\$
Fiscal Security amount:	\$

REFERENCES

References should include the site drainage report, the City of Evans MS4 Stormwater Management Program for Construction Projects Manual, and the CDPHE permit at a minimum. Other relevant references may be included.

Colorado Department of Public Health and Environment CDPS General Permit – Stormwater Discharges Associated with Construction Activity, current revision.

SWMP – PROBABLE BMP COST SHEETS

Standardized Probable BMP Cost Sheets are required to be attached to the Stormwater Management Plan (SWMP) report and submitted at the time of the permit application. The probable cost sheets are used in determining the amount of the fiscal security.

PROBABLE BMP COST SHEETS

Standardized Probable Cost Spreadsheet

Project Name: _____ Date: _____

No.	BMP	ID	Unit	Installation Unit Cost	Quantity	Cost
1	Check Dam	CD	LF	\$		\$
2	Compost Blanket	CB	SF	\$		\$
3	Compost Filter Berm	CFB	LF	\$		\$
4	Concrete Washout Area	CWA	EA	\$		\$
5	Construction Fence	CF	LF	\$		\$
6	Curb Socks	CS	EA	\$		\$
7	Diversion Channel	DC	EA	\$		\$
8	Diversion Dike	DD	LF	\$		\$
9	Dewatering	DW	EA	\$		\$
10	Erosion Control Blanket	ECB	SY	\$		\$
11	Inlet Protection – All Types	IP	EA	\$		\$
12	Outlet Protection	OP	EA	\$		\$
13	Reinforced Check Dam	RCD	LF	\$		\$
14	Rock Socks	RS	LF	\$		\$
15	Rough Cut Street Control	RCS	EA	\$		\$
16	Sediment Basin	SB	CY	\$		\$
17	Sediment Control Log	SCL	LF	\$		\$
18	Sediment Trap	ST	EA	\$		\$
19	Seeding & Mulching (<10 acres)	SM	AC	\$		\$
20	Seeding & Mulching (>10 acres)	SM	AC	\$		\$
21	Silt Fence	SF	LF	\$		\$
22	Silt Fence – Reinforced	SF-R	LF	\$		\$
23	Stabilized Staging Area	SSA	SY	\$		\$
24	Surface Roughening	SR	AC	\$		\$
25	Temporary Slope Drain	TSD	LF	\$		\$
26	Temporary Stream Crossing	TSC	EA	\$		\$
27	Terracing	TER		\$		\$
28	Tree Protection Fencing	TP	LF	\$		\$
29	Vehicle Tracking Control	VTC	EA	\$		\$
30	VTC with Wheel Wash	WW	EA	\$		\$
31	Mobilization (required on all projects)	MB	LS	\$		\$
32	Pond Maintenance/Sediment Removal (based on area tributary to the pond)	PM	AC	\$		\$
33	Street Maintenance (based on lane miles of streets within project and adjacent to project)	STM	LM	\$		\$
34	Other: _____			\$		\$
	Subtotal Cost:			\$		
35	Maintenance (required on all projects)	%	25%/ Sub-total	\$		
	Total Cost:			\$		
	Fiscal Security Amounts:			\$		

Note: For post-paving, do not include BMP costs from initial plan, only new installations

* For Temporary Batch Plant BMP's allow \$5000.00 in line 32.

** Fiscal Security required is the higher amount of either the Initial or the Post-Paving, not both.