



BARGHAUSEN

STORMWATER MANAGEMENT PLAN

Dutch Bros. Coffee

Falcon Marketplace – Lot 11
7510 Falcon Market Place
Falcon, CO 80831

Prepared for:
Dutch Bros Coffee
110 SW 4th Street
Grants Pass, OR 97526

Prepared by:
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STORMWATER QUALITY STATEMENT AND OBJECTIVES

Stormwater quality best management practices shall be implemented to minimize soil erosion, sedimentation, increased pollutant loads and changed water flow characteristics resulting from land disturbing activity to the maximum extent practicable, to minimize pollution of receiving waters.

Per Appendix A of the Colorado Department of Health, Water Quality Control Division's (hereafter referred to as the DIVISION) "General Permit Application for Stormwater Discharge Associated with Construction Activities," the goal of the Stormwater Management Plan (SWMP) is:

"To identify possible pollutant sources that may contribute pollutants to stormwater, and identify Best Management Practices (BMPs) that, when implemented, will reduce or eliminate any possible water quality impacts. The SWMP must be completed and implemented at the time the project breaks ground, and revised, as necessary, as construction proceeds to accurately reflect the conditions and practices at the site."

This document is not intended to address training, site specific operational procedures, logistics, or other "means and methods" required to construct this project.

Barghausen Consulting Engineers, Inc. has been retained to provide civil engineering services for the design of this project. Barghausen Consulting Engineers, Inc. is not responsible for implementation and maintenance of the Stormwater Management Plan.

SITE DESCRIPTION AND ACTIVITIES

Description of Construction Activities

The proposed development consists of a 950 square foot coffee shop with associated parking, sidewalks, drive-through lanes, and landscaping. It is located along a proposed roadway called Falcon Market Place, to be constructed as part of the larger development of a series of properties. The overall development is approximately 36.4 acres of vacant land in Falcon, Colorado. The various developments are all commercial in nature but will vary in purpose and function. The proposed lot for the Dutch Bros. Coffee is currently listed as lot number eleven, with a parcel area of 0.709 acres. The southern end of the lot has been dedicated for the construction of a shared stormwater detention pond.

The overall development will be served by a three different community detention ponds, constructed, and operated by a private party. All overland precipitation within Lot 11 is collected via a system of curb and gutter, catch basins, and conveyance pipes to the private connection at the southern end of the lot. The overall development is to provide a 24-inch RCP storm sewer pipe to the property. Visual depictions of existing and proposed conditions have been included in the appendix.

Existing Site Conditions

The project is located within the Southeast $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ of Section 1, Township 13 South, Range 65 West of the Sixth Principal Meridian, City of Falcon, County of El Paso, State of Colorado. The property lies in the northwest corner of the intersection of E. Woodmen Road and Meridian Road. To the west of the development lies a newly constructed medium-density residential neighborhood and to the north is an existing low-density residential area. To the south lies an existing Walmart Supercenter and to the east lies more medium-density residential properties. Three proposed community stormwater detention ponds, constructed and maintained by developer will meet the developmental stormwater runoff requirements as laid out in the Colorado Springs Drainage Criteria Manual. Survey data, including an ALTA survey and topographic information was provided to Barghausen Consulting Engineers by the

developer. This survey data has been used as the basis for the property line locations and existing ground cover and elevations.

The existing site is covered with native shrub grasses and other insignificant vegetation. As far as pre-construction activities, the site appears to have completely covered (100 percent) with native grasses and other small shrubs. Infrastructure to support the overall development, like streets, sidewalks, stormwater or other underground infrastructure has already been installed, therefore, the native cover has been reduced through those activities. This determination has been made based on visual inspection and supporting documents as submitted as part of the greater development stormwater drainage report. Existing grasses and shrubs will be removed as part of site clearing and grubbing. Topsoil will be retained on site and re-used as applicable for landscaped areas after initial grading is complete. Existing site topography indicates the overland flow current flows from north to south and slightly from west to east. There are no significant grade changes present on the site that would modify the natural overland flow.

Existing Soils

There are three predominant soil types across the site, bounded into three distinct areas. In the southwest corner, NRCS Soil Type 8: Blakeland Loamy Sand covers approximately 1.2 acres. Secondly, shaped into a bell curve, NRCS Soil Type 9: Blakeland-Fluvaquentic Haplaquolls makes up 16.3 acres in the middle of the site. Lastly, along the north half and the east side, NRCS Soil Type 19: Columbine Gravelly Sandy Loam makes up the last 19.6 acres of the site. All soils on site are classified as Hydrologic Soil Group A, as defined by the NRCS. Additional information relating to existing soil conditions can be found in the appendices. The proposed Dutch Bros. Coffee stand will be constructed upon soil Types 8 and 9. A site and project geotechnical report has been created. Any soil erosion recommendations within this document must be followed at all times.

Area and Volumes Statement

For the development of the site, approximately 0.81 acres of area will be disturbed. As previously mentioned, the parcel itself is only 0.709 acres, meaning that the remaining 0.11 acres falls outside the given parcel. The overall development has indicated that a shared access driveway will serve Lots 1 and 11. As such, the proposed Dutch Bros Coffee will provide the pavement surfaces for the entire driveway, not just the segment that is wiling Lot 11. Due to existing soil conditions, significant site grading and over-excavation will be required. Preliminary calculations indicate that up to 900 cubic yards of soil may need to be disturbed to meet the over-excavation recommendation.

Controls and Measures During Construction

Construction and stabilization activities are anticipated to begin in the Fall of 2021. To date, no additional requirements are known to Barghausen Consulting Engineers, Inc. for native or endangered species that may be present in this area. Salem Engineering Group, Inc. as hired by the developer completed a Phase I Environmental Site Assessment (ESA) of the overall development and did not note any concerns with existing native species in the area. A construction schedule will be prepared by the contractor prior to land disturbing activities. The general sequence of major construction activities is as follows:

- 1. Temporary Erosion Control Measures** – Temporary and perimeter erosion control measures, such as silt fence, rock socks, straw bale check dams, inlet/outlet protection, and construction of a vehicle tracking pad & staging area will be completed prior to any other significant construction activity. The vehicle tracking pad will ensure a reduction of tracking of soil on and off the construction site. The staging area will house the construction trailer (if any), materials, petroleum product storage (if any), trash dumpster, sanitary facilities, and hazardous spill clean-up areas. These are all potential pollutants that are not sediment related.

2. **Trash and Debris Removal** – Existing trash and debris shall be removed from the site and hauled to designated receiving facility. Debris shall be collected and deposited within an acceptable receptacle daily. Receptacles shall be emptied on a weekly basis or after the receptacle has achieved three-quarters capacity, whichever may occur first. If any signs of leaking is observed, the receptacle shall either be repaired or replaced to prevent further leaking.
3. **Site Clearing** – The remainder of the area to be disturbed for construction will be cleared and grubbed, as necessary to the perimeter of erosion control. The sequence of the areas to be cleared and grubbed are subject to the contractor's means and methods of construction of the site; however, the general plan is to work from the far edges of the site to where the vehicle tracking is to eliminate backtracking over areas that already been completed.
4. **Rough Grading** – Rough grading will occur on the site to bring the site to the proposed sub-grade elevations in paved areas and to finished grade elevations in the landscape and detention areas. Building over-excavation will also occur at this stage if required. Excess dirt from the site will be removed from the site and hauled to a designated receiving facility or site.
5. **Utility Installation** – Utility installation will consist of water, sanitary sewer, electric, and telephone and natural gas service lines. Storm drain lines will also be installed. Drainage structures and conveyance systems are depicted on Sheet C3.1; additional utilities are included on Sheet C4.0 of the submitted construction documents.
6. **Final Grading** – The site will be brought to final elevations with the installation of the proposed concrete paving and final blending to existing grades on the perimeter of the improvement area.
7. **Permanent Revegetation** – Erosion control blanket will be installed at any areas graded steeper than a 3:1 slope. All areas of disturbance will be seeded or re-vegetated by the contractor or owner per the landscape plans or on an as-needed basis. Vegetation and stabilization of soil will aid in the trapping of sediment and reducing soil erosion.
8. **Removal of Temporary BMP's** – Temporary erosion control measures may be removed once the site has achieved final 70 percent of pre-disturbance levels and vegetation cover can reduce soil erosion. All permanent BMPs shall be cleaned and functioning before any temporary BMPs are removed.
9. **Housekeeping** – The best BMP for a job site is good housekeeping around the site. Routine site trash pickup and routine BMP inspection and maintenance are paramount for keeping a job site clean and tidy. All petroleum storage areas in the staging area should be checked daily for leaks. Any leaks shall be reported to the site foreman for clean-up. All personnel on site for both the contractor and subcontractors should be briefed on spill cleanup and containment procedures. Employees shall also be briefed as to where the spill cleanup materials can be found if a spill should occur. The spill plan shall be produced by the general contractor for the project and remain onsite for the duration of the project. Contractor shall coordinate with City to obtain the necessary contacts in the case that a spill occurs.

Potential Pollution Sources

The following is intended to act as a summary of potential pollution sources and their associated measures intended to minimize the risk of pollution for this project:

- Disturbed and stored soils: silt fencing, rock socks, straw bale check dams and/or gravel bag check dams will be installed.

- Vehicle tracking of sediments: VTC will be installed. Street sweeping may also be required dependent of effectiveness of VTC.
- Management of contaminated soils: contaminated soils will be removed and disposed of off-site at authorized accepting facilities. Due to current vacant land not having been used for dumping purposes no contaminated soils are anticipated.
- Loading and unloading operations: These operations will take place in the designated staging area(s).
- Outdoor storage activities: Outdoor storage will be limited to required construction materials and will be covered and/or perimeter control provided on an as-needed basis. No storage of fertilizers, chemicals, or polluting construction material is anticipated.
- Vehicle and equipment maintenance and fueling: Spill prevention procedures will be followed. Maintenance and fueling will only take place in designated staging areas.
- Dust or particulate generation from earthmoving activities, vehicle movement, sawcutting of asphalt or concrete, etc.: Water trucks will be utilized for site watering to control airborne particulate.
- Routine maintenance activities such as equipment and vehicle maintenance will only take place in designated staging areas and follow a spill prevention plan.
- On site waste management of solid wastes (construction debris): Waste containers will be placed and utilized on-site in the staging area to ensure proper placement, covering and disposal.
- Concrete truck/equipment washing will take place in designated areas if required. Concrete trucks will utilize an on-site concrete wash-out.
- Asphalt, concrete batch plants and masonry mixing stations: none are proposed to be utilized on this site.
- Worker trash and portable toilets: Dailey site clean-up will take place and portable toilets installed on the site for contractor usage. Container placement, covering and disposal. Any portable toilets shall be located a minimum of 10 feet from all stormwater inlets and at least 50 feet from all state waters. Toilets shall be secured to the ground at all four corners and shall be cleaned on a weekly basis or as required, whichever may occur first. All portable toilets will be inspected daily for leaks/spills.

Non-Stormwater Discharges

Non-stormwater discharges possibly encountered during construction may include watering down of the site during high winds to minimize wind erosion and water utilized in soil compaction efforts. Freestanding groundwater was intercepted at depths of approximately seven and a half feet below existing grade; some dewatering procedures may be required for pile foundation systems.

Receiving Water

All runoff generated by the development of the site will be collected and conveyed to a privately owned and maintained stormwater detention pond by developer. Any treatment required will be completed at this stage. The proposed stormwater pond discharges to an unnamed tributary which ultimately leads to Black

Squirrel Creek. There are no streams present within the site boundaries. Some earthmoving activities have already begun on site, as part of the greater development, so temporary ditches and basins are present. Based on historical photos, the site has laid unused and without waterway systems for the time preceding development.

Spill Prevention and Response Plan

The contractor shall develop a spill prevention and response plan. A sample plan is included within the appendices of this report for reference.

SITE MAP

Attached as part of this plan is a Site Map (See Appendix). The drawing identifies the following:

- Project area/construction boundaries
- Flow arrows depicting stormwater and runoff flow direction
- Limits of ground surface disturbance
- Areas of cut and fill
- Area used for staging/construction material and waste storage areas
- Location of erosion control facilities or structures (BMP's)
- Boundaries of 100-year floodplains (if applicable)
- Locations of batch plants (if applicable)
- Locations of streams/crossings, wetlands, etc. (if applicable)

The following items may not be indicated on the attached drawings, but will be determined by the individual contractors and shown on the SWMP plan prior to and during construction activities:

- Areas used for storage of some construction materials, soils, or wastes
- Location of portable toilets and waste receptacles
- Location of additional BMP's that may become necessary as work progresses

These items shall be added to the Site Map by the Contractor.

BMP'S FOR STORMWATER POLLUTION PREVENTION

The best management practices (BMPs) used throughout the project timeline shall include, but not be limited to, silt fence, vehicle tracking control, fiber durawattle log, temporary inlet protection, concrete washout station, a temporary sediment basin, and check dams along a temporary sediment ditch. No treatment or runoff reduction techniques are being utilized throughout this design. Detention is being provided at a series of on-site detention ponds. Each proposed lot is routed to a specific outfall and contributes to the overall site runoff value.

Erosion Control-Structural Practices

Silt fence or erosion log to be installed along the perimeter boundary of the area to be disturbed. The silt fence/erosion log location is shown on the Initial Erosion Control Plan and shall be in place before project grading and remain in place through final stabilization.

One vehicle tracking area will be used at the northwest site entrance to prevent mud and sediment from being tracked onto the roadway surface. Periodic clean up around the entrance area is expected, nevertheless.

All catch basins or other inlet structures will be protected with an approved inlet protection control device after placement. On-site suspended sediment will be collected and routed to the proposed sediment trap at the southern end of the site.

Erosion Control – Non-Structural Practices

Street sweeping along Falcon Market Place will be utilized when tracking of site mud occurs onto private streets. The sweeping will be required after any significant tracking has occurred; significant meaning any visible amount that cannot be completely cleaned by hand. The adjacent drive surfaces will be cleaned at the end of each day of construction activities. Sweeping efforts will continue as necessary until construction operations are completed.

Site watering will be utilized according to the contractor's BMPs. Watering will be required as a dust abatement method on an as needed basis each day of construction activities. Contractor will be required to install mulch or permanent landscaping on all disturbed land not planned to be covered with concrete or asphalt.

All areas to be permanently landscaped shall have seed or mulch applied to them after final grade has been achieved. For temporary slopes, any areas that will be untouched for a period of 30 days or greater, temporary seed will be applied to prevent further soil erosion or degradation of embankments.

Materials Handling

Any waste material found on-site or generated by a construction activity will be disposed of in a timely manner, such as to prevent pollutants in storm water discharges. If waste is to be stored on-site, it shall be in an area located a minimum of 100 feet from all drainage courses, whenever possible. Whenever waste is not stored in a non-porous container, it shall be in an area enclosed by a compacted earthen ridge. If the enclosed waste area is located on porous soil, the area shall be covered with a non-porous liner to prevent soil contamination. Whenever precipitation is predicted, the waste shall be covered with a non-porous cover and anchored on all sides to prevent its removal by wind, to prevent precipitation from leaching out potential pollutants from the waste.

Any designated fueling areas shall be located a minimum of 100 feet from all drainage courses, whenever possible. If the fueling area is located on porous soil, the area shall be covered with a non-porous lining to prevent soil contamination and any spillage shall be cleaned up immediately.

Whenever precipitation is predicted, any construction materials stored on site shall be covered with a non-porous cover and anchored on all sides to prevent its removal by wind, to prevent precipitation from leaching out potential pollutants from the materials.

Any chemical stored on site should be kept in an area with berms constructed around the perimeter to confine any spills or in a lockable storage container.

Groundwater & Stormwater Dewatering

There is not expected to be any groundwater dewatering required as part of this project. If stormwater enters an excavation and dewatering is necessary, a separate construction dewatering permit will be required.

TIMING SCHEDULE

The anticipated project start date is still pending. It is expected that earth-moving activities will take approximately 60 to 90 days due to the large amount of over-excavation that will need to occur prior to building construction. To date, no additional requirements are known to Barghausen Consulting Engineers, Inc. for native or endangered species that may be present in this area. Salem Engineering Group, Inc. as hired by the developer completed a Phase I Environmental Site Assessment (ESA) of the overall development and did not note any concerns with existing native species in the area. The contractor shall be responsible for producing a schedule that will show at a minimum: start and completion times including site grading operations, and the removal of the temporary erosion and sediment control measures.

FINAL STABILIZATION/LONG-TERM STORMWATER TREATMENT

Final stabilization shall not be considered complete until 70 percent of the site is established with vegetated ground cover on areas not to be asphalt/concrete. Temporary sediment and erosion control measures installed prior to the construction phase will remain in place until this time. Final stabilization for the disturbed areas on site will include paved roadways, sidewalks, driveways, and landscaping or revegetation by the contractor and individual lot owners. Some stabilization will occur prior to lot construction due to the nature of multiple lots being developed concurrently. Any sediment that collects within the site's drainage system is considered unstabilized soil and must be removed prior to the site being considered finally stabilized.

Project detention and treatment requirements are being met by a stormwater detention and treatment system owned and operated by the overall developer. This system is located to the south of the project site. No on-site detention or treatment is occurring within the project area. Refer to overall development construction documents for additional information on detention structure details and specifications.

Included in the appendices are initial, interim, and final erosion control plans and construction BMP's. The initial erosion control plan will be implemented prior to any significant construction activity occurring. Throughout construction activities, temporary erosion control devices should be checked periodically to confirm that they are placed correctly and functioning adequately. Near the conclusion of the project, temporary erosion control devices may be removed, and permanent erosion control/stabilization may occur. This plan may be modified as required to meet the changing stormwater and erosion control requirements. The Qualified Stormwater Manager (QSM) shall evaluate current plan and requirements and adjust as required.

INSPECTION AND MAINTENANCE

A site inspection of all erosion control facilities will be conducted every 14 days and within 24 hours after every significant precipitation or snowmelt event that results in erosion by the QSM. The entrance to the construction site shall be inspected daily and existing street cleaned, as necessary, of all materials tracked out of the site.

The construction site perimeter, disturbed areas, and areas used for material storage that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWMP shall be observed to ensure that they are operating correctly. All inspection logs shall be kept on site, in a location identified by the QSM. Logs shall require that QSM or other authorized personnel has inspected, verified, and signed that the designed system is functioning correctly.

This document (SWMP) should be viewed as “living document” and as such is subject to change at the discretion of the QSM or other authorized personnel. The QSM shall amend the document as changes in design, construction, or operation and maintenance of the system are realized. If the proposed plan is ineffective at achieving the required erosion and sediment control goals, additional measures may be taken to achieve requirements.

REFERENCES

- 1) General Permit Application and Stormwater Management Plan Preparation Guidance for Stormwater Discharges Associated with Construction Activities. Prepared by the Colorado Department of Health, Water Quality Control Division. Revised 7/2009.
- 2) City of Colorado Springs– Drainage Criteria Manual, Volumes 1 and 2, 2014.
- 3) NRCS Web Soil Survey, www.websoilsurvey.nrcs.usda.gov
- 4) “Final Drainage Report for Falcon Marketplace” prepared by Drexel, Barrell & Co. on November 4th, 2019 (Project Number SF-19-001).
- 5) “Final Drainage Letter” as prepared by Barghausen Consulting Engineers, Inc. on December 16th, 2021. (BCE Project Number 21917)
- 6) Construction Documents as prepared by Barghausen Consulting Engineers, Inc. as submitted on December 20, 2021 (BCE Project Number 21917).

APPENDIX

- Sample Construction Stormwater Site Inspection Form
- Sample Spill Control and Prevention Plan
- Vicinity Map
- Soils Map
- Grading and Erosion Control Plans

CONSTRUCTION STORMWATER SITE INSPECTION REPORT

Facility Name		Permittee					
Date of Inspection		Weather Conditions					
Permit Certification #		Disturbed Acreage					
Phase of Construction		Inspector Title					
Inspector Name							
Is the above inspector a qualified stormwater manager? (permittee is responsible for ensuring that the inspector is a qualified stormwater manager)			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
YES	NO						
<input type="checkbox"/>	<input type="checkbox"/>						

INSPECTION FREQUENCY					
Check the box that describes the minimum inspection frequency utilized when conducting each inspection					
At least one inspection every 7 calendar days	<input type="checkbox"/>				
At least one inspection every 14 calendar days, with post-storm event inspections conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosions	<input type="checkbox"/>				
<ul style="list-style-type: none"> • This is this a post-storm event inspection. Event Date: _____ 	<input type="checkbox"/>				
Reduced inspection frequency - Include site conditions that warrant reduced inspection frequency	<input type="checkbox"/>				
<ul style="list-style-type: none"> • Post-storm inspections at temporarily idle sites 	<input type="checkbox"/>				
<ul style="list-style-type: none"> • Inspections at completed sites/area 	<input type="checkbox"/>				
<ul style="list-style-type: none"> • Winter conditions exclusion 	<input type="checkbox"/>				
Have there been any deviations from the minimum inspection schedule? If yes, describe below.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">YES</td> <td style="width: 50%; text-align: center;">NO</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	YES	NO	<input type="checkbox"/>	<input type="checkbox"/>
YES	NO				
<input type="checkbox"/>	<input type="checkbox"/>				

INSPECTION REQUIREMENTS*
i. Visually verify all implemented control measures are in effective operational condition and are working as designed in the specifications
ii. Determine if there are new potential sources of pollutants
iii. Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges
iv. Identify all areas of non-compliance with the permit requirements, and if necessary, implement corrective action
*Use the attached Control Measures Requiring Routine Maintenance and Inadequate Control Measures Requiring Corrective Action forms to document results of this assessment that trigger either maintenance or corrective actions

AREAS TO BE INSPECTED			
Is there evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system or discharging to state waters at the following locations?			
	NO	YES	If "YES" describe discharge or potential for discharge below. Document related maintenance, inadequate control measures and corrective actions Inadequate Control Measures Requiring Corrective Action form
Construction site perimeter	<input type="checkbox"/>	<input type="checkbox"/>	
All disturbed areas	<input type="checkbox"/>	<input type="checkbox"/>	
Designated haul routes	<input type="checkbox"/>	<input type="checkbox"/>	
Material and waste storage areas exposed to precipitation	<input type="checkbox"/>	<input type="checkbox"/>	
Locations where stormwater has the potential to discharge offsite	<input type="checkbox"/>	<input type="checkbox"/>	
Locations where vehicles exit the site	<input type="checkbox"/>	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	

REPORTING REQUIREMENTS

The permittee shall report the following circumstances orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances, and shall mail to the division a written report containing the information requested within five (5) working days after becoming aware of the following circumstances. The division may waive the written report required if the oral report has been received within 24 hours.

All Noncompliance Requiring 24-Hour Notification per Part II.L.6 of the Permit		
a. Endangerment to Health or the Environment Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident (See Part II.L.6.a of the Permit) <i>This category would primarily result from the discharge of pollutants in violation of the permit</i>		
b. Numeric Effluent Limit Violations <ul style="list-style-type: none"> o Circumstances leading to any unanticipated bypass which exceeds any effluent limitations (See Part II.L.6.b of the Permit) o Circumstances leading to any upset which causes an exceedance of any effluent limitation (See Part II.L.6.c of the Permit) o Daily maximum violations (See Part II.L.6.d of the Permit) <i>Numeric effluent limits are very uncommon in certifications under the COR400000 general permit. This category of noncompliance only applies if numeric effluent limits are included in a permit certification.</i>		

Has there been an incident of noncompliance requiring 24-hour notification?	NO	YES	
	<input type="checkbox"/>	<input type="checkbox"/>	If "YES" document below

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

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

After adequate corrective action(s) and maintenance have been taken, or where a report does not identify any incidents requiring corrective action or maintenance, the individual(s) designated as the Qualified Stormwater Manager, shall sign and certify the below statement:

"I verify that, to the best of my knowledge and belief, all corrective action and maintenance items identified during the inspection are complete, and the site is currently in compliance with the permit."

Name of Qualified Stormwater Manager

Title of Qualified Stormwater Manager

Signature of Qualified Stormwater Manager

Date

Notes/Comments

Spill Prevention and Response Plan

Name of Business _____

Address _____

Facility Phone (____) ____ - _____

Types of Work or Hazardous Substances Used: _____

This spill plan is designed to handle the requirements for this system and associated hazardous substances. The spill plan should be updated if the hazardous substance inventory changes.

Spill Prevention

The following are general requirements for any hazardous substances stored or used at this facility.

General Requirements

- Ensure all hazardous substances 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 (~55 g).
- Maintain good housekeeping practices for all chemical materials at the facility.
- Routine/Daily checks in the hazardous substance storage area to be performed by _____
- Monthly inspections of the hazardous substance storage area, secondary containment, and annular space (interior cavity of double wall tank) on any Above-ground Storage Tanks (AST) or Underground Storage Tanks (UST) need to be logged in this plan. See Appendix A - Inspection Log.

Facility Specific Requirements

- _____
- _____

Spill Containment

The general spill response procedure at this facility is to stop the source of the spill, contain any spilled material and clean up the spill in a timely manner to prevent accidental injury or other damage. Small spills will be contained by site personnel if they are able to do so without risking injury. Spill kits are located at the following location(s). See attached site map:

Emergency Procedures:

- Immediately call **911** in the event of injury, fire or potential fire, or spill of a hazardous substance that gives rise to an emergency situation.
- If a spill has occurred, contact the following persons immediately:

_____ (Primary) (____) ____ - _____

Spill Prevention and Response Plan

_____ (Secondary) (____) ____ - _____

_____ (After Hours Emergency Contact) (____) ____ - _____

• **In the event of a large spill, a properly trained employee should:**

- Assess the area for any immediate dangers to health or safety (i.e. a wrecked car on fire). If any dangers are present, move away from the area, **call 911**.
- Notify the primary and/or secondary contact from the list above and then continue your spill response. The primary contact should assess additional notification requirements.
- Retrieve the spill kit from the closest location.
- Assess the size of the leak and any immediate threat of the spill reaching the floor/storm drains or permeable surfaces in the area. If there is an immediate threat and there are no safety concerns, then attempt to block the spill from coming in contact with the floor/storm drain or permeable surface. If no drain covers are available, then try to use absorbent (cat litter) and/or sock booms or rags to stop the spill from getting into the drains or to any permeable surfaces.
- If the spill can be contained with absorbent booms, deploy them around the spill. Use the booms to direct the spill away from any immediate hazards (i.e. a wrecked car).
- If there is no immediate threat to the floor/storm drains or permeable surfaces, or after controlling the spill, try to plug or stop the leak, if possible. If applicable, put on protective gear (gloves, goggles, protective clothing, etc.) and plug the leak.
- Once the spill has been contained and any immediate threat to storm drains or permeable surfaces has been minimized, contact the spill cleanup contractor and dispatch them to clean up the spill or commence spill cleanup procedures.

Spill cleanup for large spills should be handled by the Spill Cleanup Contractor

Company Name _____ 24-Hour Phone (____) ____ - _____

Spill Reporting

If a hazardous substance spill exceeds 25 gallons or if any amount has been released to soil, surface water, or storm drains, notify the following agencies:

National Response Center (NRC) (800) 424-8802

Florida State Warning Point (SWP) (800) 320-0519

Spill Prevention and Response Plan

Plan Management

The primary contact or designee shall administer this plan and will be responsible for updating and including any required documentation.

Training

All personnel who may respond to any spill, need to be trained on the contents and procedures in this plan. Trained personnel will add their names and dates of training to the Training Log (see Appendix D). Only persons trained on this plan shall respond to a spill. If you are not trained and witness a spill, call or notify the primary and secondary contacts listed on Page 2 of this plan.

Spill Tracking

Any spills must be entered into the Spill Log (see Appendix C). If a large catastrophic spill occurs, attach additional pages to describe the event. Include known or possible causes, areas affected, and effectiveness of the cleanup. Include a review of the cleanup contractor and their procedures. For small spills, it is sufficient to fill out the Spill Log, and to take measures to prevent a repeat occurrence.

Facility Inspections

Routine inspections will be conducted daily during regular business hours. Daily inspections will include, at a minimum, a visual inspection of the hazardous substances containers and the area immediately adjacent to it for signs of a spill or leak. These inspections do not need to be logged unless a spill or leak is detected. Ideally, these inspections will be conducted by a manager or by regular employees.

Full site inspections will be conducted monthly by the primary contact or designee and, at a minimum, will include those items on the inspection form in Appendix B. If any item on the inspection form is found unacceptable, the inspection form will be attached to this plan. If all items are deemed acceptable; it is sufficient for the inspector to log only the inspection and the results in the Inspection Log (Appendix A).

Disclaimer

This spill plan is designed to be applicable to a broad number of business types and hazardous substance handling and storage situations. Modifying this plan to reflect your site specific hazards and business practices is highly recommended. Your facility assumes all responsibility for the contents of this Spill Management Plan and the use of this plan within the business.

Spill Prevention and Response Plan

Appendix A - Inspection Log

A = Acceptable U = Unacceptable

If any items are unacceptable attach Inspection Form with details.

Inspection Month	Year	Inspector Initials	Lids and Labels?	Evidence Of Spills?	Alarms or Sensor?	New Product?	Spill Kit Complete?	Storm Drains?	Items Fixed?
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									
January									
February									
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September									
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December									
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									



Spill Prevention and Response Plan

Appendix B Inspection Form

Acceptable Unacceptable

- | | | |
|--------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Lids and Labels?
Have all lids and caps been returned to their proper place?
Do all the containers still have labels? |
| <input type="checkbox"/> | <input type="checkbox"/> | Evidence of Spills?
Is there any indication that a spill might have occurred? If so, was the spill properly cleaned up? Was there any spill kit materials used? Was the Spill Log filled out for that incident? Any housekeeping issues? |
| <input type="checkbox"/> | <input type="checkbox"/> | <i>For Tanks with alarm systems only</i> Any Alarms or Sensor issues?
Have there been any alarm conditions in the past month? If alarms have occurred, has the monitoring system been serviced by the manufacturer or an authorized service company? Is the system up and working at this time? Is the sensor working? Did you conduct a test of the alarm and the sensor? When was the last time the sensor was serviced? |
| <input type="checkbox"/> | <input type="checkbox"/> | New Hazardous Substances?
Have any new chemical products been purchased? Do you have the MSDS for new products? Have you assessed how to store and handle this new product safely? Have you added the new hazardous substance to the inventory sheet in this plan? Is the container properly labeled? |
| <input type="checkbox"/> | <input type="checkbox"/> | Spill Kit Complete?
Have any items been used from the spill kit? If items are missing, is there an associated entry in the Spill Log? Are there any items missing that are currently on order? Is the spill kit stored where it is supposed to be stored? Is there a sufficient supply of daily cleanup materials? |
| <input type="checkbox"/> | <input type="checkbox"/> | Storm Drains?
Is there a buildup of sediment in the drain traps? Is there any evidence of drain clogging? Are the drain filters still intact? Any need replacing? Have they been replaced? |
| <input type="checkbox"/> | <input type="checkbox"/> | Items Fixed?
Have all deficiencies previously noted been fixed or made acceptable? |

List any issues, deficiencies, or failures in detail:



Spill Prevention and Response Plan

Site Map

Note locations of spill kits, inside floor drains, storm drains, and hazardous substance storage areas.



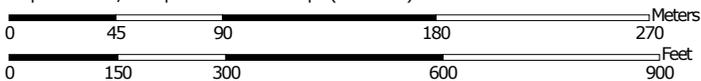
Vicinity Map

NTS

Custom Soil Resource Report Soil Map



Map Scale: 1:3,170 if printed on A landscape (11" x 8.5") sheet.



Map project on: Web Mercator Corner coordinates: WGS84 Edge tcs: UTM Zone 13N WGS84



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

 Streams and Canals

Transportation

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

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 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: <http://websoilsurvey.nrcs.usda.gov>
 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 13, Sep 22, 2015

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

Date(s) aerial images were photographed: Apr 15, 2011—Sep 22, 2011

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

El Paso County Area, Colorado (CO625)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
8	Blakeland loamy sand, 1 to 9 percent slopes	1.2	3.2%
9	Blakeland-Fluvaquentic Haplaquolls	16.3	43.9%
19	Columbine gravelly sandy loam, 0 to 3 percent slopes	19.6	52.9%
Totals for Area of Interest		37.1	100.0%

Map Unit Descriptions

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

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

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

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments

Custom Soil Resource Report

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

Description of Blakeland

Setting

Landform: Flats, hills
Landform position (three-dimensional): Side slope, talf
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
Natural 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 in profile: 5 percent
Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: A
Ecological site: Sandy Foothill (R049BY210CO)

Minor Components

Other soils

Percent of map unit:

Pleasant

Percent of map unit:

Landform: Depressions

9—Blakeland-Fluvaquentic Haplaquolls

Map Unit Setting

National map unit symbol: 36b6

Elevation: 3,500 to 5,800 feet

Mean annual precipitation: 13 to 17 inches

Mean annual air temperature: 46 to 55 degrees F

Frost-free period: 110 to 165 days

Farmland classification: Not prime farmland

Map Unit Composition

Blakeland and similar soils: 60 percent

Fluvaquentic haplaquolls and similar soils: 30 percent

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

Description of Blakeland

Setting

Landform: Flats, hills

Landform position (three-dimensional): Side slope, talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy alluvium derived from arkose and/or eolian deposits derived from arkose

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

Natural 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 in profile: 5 percent

Available water storage in profile: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 6e

Custom Soil Resource Report

Hydrologic Soil Group: A

Ecological site: Sandy Foothill (R049BY210CO)

Description of Fluvaquentic Haplaquolls

Setting

Landform: Swales

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium

Typical profile

H1 - 0 to 12 inches: variable

Properties and qualities

Slope: 1 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Runoff class: Very high

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 6.00 in/hr)*

Depth to water table: About 0 to 24 inches

Frequency of flooding: Occasional

Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Interpretive groups

Land capability classification (irrigated): 6w

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: D

Minor Components

Other soils

Percent of map unit:

Pleasant

Percent of map unit:

Landform: Depressions

19—Columbine gravelly sandy loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 367p

Elevation: 6,500 to 7,300 feet

Mean annual precipitation: 14 to 16 inches

Mean annual air temperature: 46 to 50 degrees F

Frost-free period: 125 to 145 days

Farmland classification: Not prime farmland

Map Unit Composition

Columbine and similar soils: 85 percent

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

Description of Columbine

Setting

Landform: Fans, flood plains, fan terraces

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Alluvium

Typical profile

A - 0 to 14 inches: gravelly sandy loam

C - 14 to 60 inches: very gravelly loamy sand

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very 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

Available water storage in profile: Very low (about 2.5 inches)

Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: A

Ecological site: Gravelly Foothill (R049BY214CO)

Minor Components

Fluvaquentic haplaquolls

Percent of map unit:

Landform: Swales

Other soils

Percent of map unit:

Pleasant

Percent of map unit:

Landform: Depressions