STORMWATER MANAGEMENT PLAN For

COR40000

Timnath Landing F8 (Select Lots) PERMITTED FACILITY

> COR421202 CERTIFICATION #

## Brightland Homes OPERATOR

5660 Greenwood Plaza Blvd. Suite 101-N Greenwood Village, CO 80111



SWMP PREPARED February 14, 2021

Prepared by



3409 N. Prospect Street Colorado Springs, CO, 80907

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## INTRODUCTION

This Stormwater Management Plan (SWMP) has been prepared on behalf of Brightland Homes, A registered Trade Name of GH Colorado LLC, by EarthX Environmental, LLC for a project consisting of finished lots purchased for single-family residential (detached/attached) homes.

The purpose of this SWMP is to adequately address the requirements of the Colorado Discharge Permit System (CDPS) General Permit for Stormwater Discharges Associated with Construction Activities COR-400000 (General Permit or permit), effective from April 1, 2019 to March 31, 2024 to include necessary modifications implemented February 1, 2021.

Preparation of this SWMP includes; but is not limited to, addressing the following issues:

- The relationship between the designated Owner and Operator for this permit. (if they are not the same);
- Establish the policies, practices and criteria the operator will follow for the site with respect to the construction activities regulated under the General Permit specific to this project;
- Ensure the SWMP adequately addresses and meets specific elements, including, but not limited to, inspection, maintenance, and reporting as required by the General Permit specific to this site.
- Identify significant materials and potential sources of pollution that may reasonably be expected during the phases of construction related to the operator's activities;
- Describe the methods to meet stabilization requirements of the General Permit.
- Ensure practices and control measures are selected, installed, implemented and maintained in accordance with good engineering and hydrological practices to minimize potential storm water discharges from this construction site.
- Describe and identify the property limits within the scope of this permit including how and/or where storm flow enters or leaves – are managed over the period of permit coverage;
- Describe and discuss areas or control measures:
  - located off site;
  - $\circ$  owned, or controlled by others adjacent to this permitted facility; and,
  - where uncoordinated activities by other operations may impact control measures located within the permitted area;

#### SWMP STRUCTURE AND FORMAT

The SWMP has been developed as set of documents located online. This document is the main body of the SWMP. However, supporting documents, including, but not limited to, soils reports, maps and plans, control measure details, other permits from MS4's or other discharge permits, spill response plans, and state permit certificates are retained on a web page dedicated to this project. The information and/or documents necessary to fulfill the SWMP development criteria are available on the web page either on the web page or as a download contained within the web page.

## PERMIT SUMMARY INFORMATION

This section identifies information specific to the permitted facility. If applicable, item specific information is covered in later sections of the SWMP. Where appropriate for clarification, or to link to specific permit sections, a link to the appropriate section will be provided.

#### IDENTIFICATION OF OWNER / OPERATOR.

This facility was permitted as follows:

- Duties of Owner and Operator are separate
- Duties of Owner and Operator are managed by Owner
- Duties of Operator and Owner are separate with a developer or land management company serving as the owner
- Duties of Owner and Operator are managed by Developer prior to sale of finished lots to Homebuilder.

Identification and contact information for the owner and operator is provided in the Site Contact and Qualified Stormwater Manager section of the web page for this permit.

#### LAND OWNERSHIP

The permitted property is owned and controlled, for the purpose of construction, by Brightland Homes. These select lots were purchased from the overall developer, Owner CAC Timnath, LLC which has an existing permit COR 419330 for the overall development.

#### SITE INFORMATION

The following is a summary of information collected for purposes of preparing the permit application:

PROJECT/SITE NAME	LATITUDE / LONGITUDE			
Timnath Filing 8, Select Lots	Latitude: 40.524707			
Thinath Filling 6, Select Lots	Latitude: -104.972062			

PROJECT LOCATION / ADDRESS:

5778 Quentin Lane

City: Timnath

County: Larimer

Zip Code: 80529

A copy of the map showing permit boundaries, as originally submitted, is included as an attachment in the Site Reference / Other Documentation of the web page for this permit.

#### LEGAL DESCRIPTION FOR SUB-DIVIDED AREAS:

□ Not Applicable ⊠ Legal Description: Timnath Landing Filing No. 8, Block 1 lots 1-12, Block 2 lots 1-18, Block 3 lots 1-11, Block 4 Lots 1-13, Tracts A–K

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## SITE DESCRIPTION

#### NATURE OF CONSTRUCTION ACTIVITY

Primary function of the construction activity?

Pipeline and utilities

□ Highway & transportation □ Oil and Gas

Commercial

□ Non-Structural and Other (specify):

This SWMP covers all construction activities necessary for the construction and final stabilization at the permitted facility, including, but not limited to activities listed in the <u>Projected Schedule</u>, <u>Phasing</u>, <u>Control Measures And Maintenance Activities</u>.

#### **PROPOSED SCHEDULE**

#### PROJECT START DATE

Residential

Estimated: September 8, 2023 Actual Start is indicated on the web page for this SWMP. ESTIMATED FINAL STABILIZATION DATE: December 31, 2027

Approximate overall construction sequencing is provided in the following table detailing construction sequence and control measure phasing. As not all areas/activities are active at the same time the schedule provides an estimated time for the completion of each of the major tasks as well as the recommended control measures associated with commercial development.

The table below includes an outline of the control measures that were anticipated during the planning phase of this project. Changes to control measures occurring after the publishing of this SWMP will not be addressed in this table. Substitutions, additions, or subtractions, of control measures will be noted on the site map and/or in appropriate specifications. Timing is approximate and assumes good weather and no unforeseen circumstances. This table will reference control measures for the phase each is initially installed. Such measures are assumed to continue through the rest of the project and will not be duplicated in following sections.

PROJECTED SCHEDULE, PHASING, CONTROL MEASURES AND MAINTENANCE ACTIVITIES Following projected schedule is based on the lot-by-lot construction schedule Active lots are noted on site map.

Controls listed below are assumed to be cumulative and controls in later phases are as needed for specific phases. See also Control Measure specific details for maintenance activities.

Project Phase		Projected Duration 3 years	BMPs to be Implemented During Each Phase <sup>1</sup>	Maintenance Activities <sup>1</sup>			
Initial	Prior to construction activities (by Block)	3 days	Silt fence, wattles, or other linear controls for disturbed area containment. vehicle tracking control, Portable toilets, inlet protection and concrete washout (if not centralized).	Remove accumulated sediment, trash and debris. Replace or repair damaged section or parts Clean as needed.			
Interim (detached)	Prior to lot specific construction	3 days	Silt fence, wattles, or other linear controls as needed for additional for disturbed area containment on portions of lot not addressed in initial phase, vehicle tracking control, concrete washout (if not centralized.) and Street Sweeping	Remove accumulated sediment, trash and debris. Replace or repair damaged section or parts and clean as needed. Clean or replace Concrete washout as needed. Remove accumulated soils tracking from all paved surfaces. Roughen or clean / replace tracking control as needed. Ensure portable toilets are appropriately located and anchored.			
	Foundation Excavation	2 Days	If needed, install lot specific tracking control and additional street sweeping	Remove accumulated sediment, trash and debris. Replace or repair damaged section or parts and clean as needed. Remove accumulated soils tracking from all paved surfaces. Roughen or clean / replace tracking control as needed			
	Form and Pour Foundation	7 Days	Add lot specific Concrete washout if needed	Clean or replace Concrete washout as needed.			
	Back Fill Foundation	1 Day	If needed or practical replace any high profile back of curb containment controls with low profile linear controls.	Remove accumulated sediment, Replace or repair damaged section or parts and clean as needed.			
	Frame and interior construction	120 days	As appropriate, provide additional lot specific dumpsters and/portable toilets.	Remove accumulated, trash and debris. Replace or repair full or damaged dumpsters as needed. Ensure portable toilets are appropriately located and anchored.			

	Concrete Washout	NA	It is anticipated the developer will provide an area wide Concrete washout. However, at the time of SWMP preparation the location of this facility has not yet been determined. Once this information is available it will be noted in the SWMP.	The development wide concrete washout maintenance is performed by the Developer. If individual CWO is required, it must be installed properly and maintained per specifications. See also the concrete waste section of the SWMP. <u>CONTROL MEASURES DESIGNED FOR CONCRETE</u> <u>WASHOUT WASTE</u>
			If a development wide concrete washout is not provided block specific concrete washout will be established using either an inground pit or ECOPAN.	
	Street Sweeping	NA	Street must be cleaned on an as- needed basis. During times when lot access for excavation or foundation backfill is occurring subcontractors are required to provide sweeping throughout the day in addition to any regularly scheduled sweeping.	Ensure through visual inspection that streets remain clear of soils or other waste material. See also <u>VEHICLE TRACKING OF SEDIMENTS</u> and <u>VEHICLE TRACKING OF SEDIMENTS</u>
Final	Final Stabilization	20	Site management Remove practices, silt fence, vehicle tracking control, inlet protection, wind erosion controls, portable toilets, dumpsters and street sweeping. Professional landscaping and/or seeding/mulching services for all areas not covered by pavement or structures. Professional landscaping includes installation of an automatic irrigation system, trees, shrubs, perennial grasses/flowers, sod and mulch (rock or bark) as well as permanent structures and paved areas.	accumulated sediment, trash and debris. Replace or repair damaged section or parts. Clean as needed. Replace dead or dying plants or sod. Re–seed bare areas. Refresh mulch in bare areas.

#### ESTIMATES OF ACREAGE

The following are estimates of the construction site acreage:

Permitted area (Controlled by operator) to be disturbed: Approximately 6.7 Total project area: Approximately 6.7

Total area of common plan of development: Estimated 300 Acres in the original Common Plan of Development.

#### SUMMARY OF EXISTING SOILS DATA

A soils inquiry was pulled from the USDA Natural Resources Conservation Service's Web Soils Survey Service focusing on Weld County Colorado, Southern part. A summary of the soil types is listed below. See the Site Reference / Other Documentation Portion of this SWMP for copies of the downloaded soils survey and the full RUSLE2 report.

Mag symbol and soil same PCL of mag. Slope length Hydrologic group NF T factor Representative value							e	
	witt	(w)				No Sand	the silt.	m day
7-Assure sandy loans, it to 5 percent aloges								
Ascalon	85	298		1.17		66.8	19-2	14.0
22-Caiusz rhy loam, 6 to 1 percent slope								
Caruse	85	-	B		а.	35.4	33.6	31-0
33-Plusaguarda, nearly woll								
Phyotogenetits, meanly level	90	+	0	-	0	-		32.5
S3-Kim loam, 1 to 3 percent slopes								
KOR	50	-	8	.28		41.6	32.4	23.0
54-Km mam, 3 to 5 percent stopes								
EDet-	90	-	. 0		51	41.6	37,4	25.0
60-Larits gravely sanity court, 5 to 40 percent slopes								
Laries	105	-			1	66.6	22.4	10.0
64-Loveland clay lown, 0 to 1 percent alopen								
Exveland	90	-	c	.20	- 1	33.3	31.7	75.0
73-Num day loam, 6 to 3 percent aloges								
Numi	05	390	c			43.0	26.0	32.0
76-Num day learn, wet, 1 to 3 percent stopes								
Nurvi, set	50	-	e.		5	35.4	33.6	31-0
77-D6m sanity lasm, 0.10 3 percent alopes								
Oteni	85	+	4	-38		65.8	19.1	15.0
78-Oters sarily team, 2 to 5 percent slopes								
Otern	115	-	*	.18		65.6	19.5	38.0
01-Pick fire sandy isars, 0 to 1 percent slipes								
Patti	.05	-	Α	35	8.5	65.4	19.4	15.0
98-Satarta Variant clay loam, 0 to 3 percent stopes								
Socalita varianti	98	-	-0	.28	5	33.6	36.9	29.5
105-Table Mountain loam, 0 to 1 percent slopes								
Table Mountain	85	-		77.		44.3	40.7	15.0

#### ESTIMATED EXISTING VEGETATION

At the time of the initial SWMP preparers initial visit on 6/22/2023 the site had been over lot graded and there was no vegetative cover within the Timnath Filing 8 common plan of development. A reference site approximately .5 mile from filing 8 was selected review. The reference point was reviewed in Google Earth Pro and a time lapse view shows the property subject to this permit and the reference site were part of the same agricultural crop production unit sine at least 2021. The reference site consisted of an agricultural cover crop interspersed with multiple weed species. While there were areas with an increased level of vegetative coverage in some areas, the minimum uniform vegetative cover was observed to be approximately 50%.

As the permitted areas are landscaped homes it is anticipated the uniform vegetative cover will exceed the observed pre-disturbance vegetative cover

The determinations above were made by observation during a site visit, by Brian Garber of EarthX Environmental. Mr. Garber's 35 years' experience in crop production and construction stormwater provides sufficient knowledge to make simple determinations on uniform vegetative cover as pertains to the Construction stormwater program.

#### AREAS RECEIVING DISCHARGE

#### IMMEDIATE SOURCE RECEIVING DISCHARGE

Project drainage from Filing 8 is mainly from the north and east to the southwest corner. At the time homebuilding activities begin the lots will drain either to the curb or alley ways and travel to inlets along the streets. Storm drains in the site area connected to regional detention basins within the common plan of development for Timnath Landing Filing 8.

As these are finished lots no change in drainage flows is anticipated as part of the permitted activities

#### **RECEIVING WATERS**

Immediate receiving water is to Timnath Lakes which discharges to Timnath Reservoir Outlet. Timnath Reservoir Outlet flows into Greely #2 Canal to Cache La Poudre River (approximately 7.8 miles from site) which ultimately runs to the South Platte (approximately 20.8 miles from site).

#### MS<sup>4</sup> IDENTIFICATION

Identification of Municipal Separate Storm Sewer systems receiving discharge from the site: Weld Couty/town of Timnath

#### NON-STORMWATER DISCHARGES

Non stormwater discharges anticipated at this site include:

Discharges from uncontaminated springs that do not originate from an area of land disturbance.

Discharges to the ground of concrete washout water associated with the washing of concrete tools and concrete mixer chutes. Discharges of concrete washout water must not leave the site as surface runoff or reach receiving waters as defined by this permit. Concrete on-site waste disposal is not authorized by this permit except in accordance with Part I.B.1.a.ii(b) of the permit. Control measures to manage this activity and prevent concrete washout water from leaving the site as surface runoff or reaching receiving waters are located on the active site map.

 $\boxtimes$  Discharges of landscape irrigation return flow.

 $\Box$  Discharges from diversions of state waters within the permitted area.

Discharges resulting from emergency firefighting activities during the active emergency response are authorized by this permit are neither anticipated nor always known unless they occur on areas under direct control of the permittee. If the operator becomes aware of such an occurrence it will be noted on the site map. If there are any pooled or collected water from these activities

#### IDENTIFICATION OF OTHER PERMITS AT FACILITY

While not specifically anticipated, the Facility reserves the right to utilize the <u>Division Low Risk</u> <u>Guidance For Dewatering Of Stormwater</u>. This is provided on the facilities web page under the Division Low Risk Guidance section.

 $\boxtimes$  No additional applicable permits for this Facility at the time of SWMP preparation.

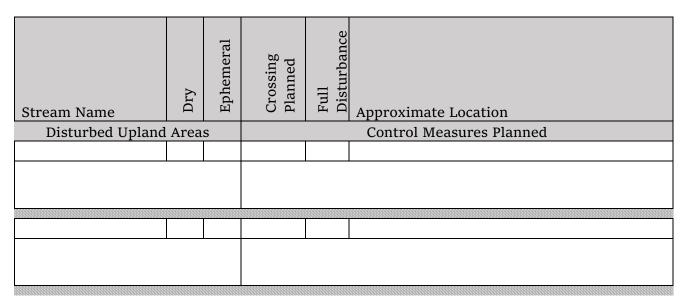
□ Additional applicable permits for this facility, as listed below, are included in the SITE REFERENCE AND OTHER DOCUMENTATION section of the web page for this facility.

Applicable permits for this facility, were added after initial preparation of the SWMP.

### STREAM CROSSINGS

 $\boxtimes$  During SWMP preparation no stream crossings were identified within the construction site permitted area.

 $\hfill\square$  During SWMP preparation the following stream crossings were identified within the construction site permitted area.



### DESCRIPTION OF FINAL STABILIZATION

The final stabilization of this site will consist of professional landscaping to include areas of irrigated sod with trees, shrubs, landscape mulch or rock as well as other landscape features. This final stabilization will occur on a lot by lot or per tract basis

□ Detailed landscape plans have been prepared and are included in the Site Maps section of the SWMP.

 $\boxtimes$  No formal landscape plan will be developed for this project beyond the description provided above. As appropriate, specifications for final stabilization control measures are located the Maps section of the SWMP and locations for areas stabilized are identified on the active site map.

 $\boxtimes$  The use of stabilization methods requiring a specific seed mix is not anticipated. As such, no specific seed mix is included with this SWMP.

Temporary stabilization plan

No temporary stabilization plan was developed for this project at the time of SWMP preparation. Minor temporary stabilization will be noted on the site plans. Should a larger temporary stabilization plan become necessary this will be included in the Site Reference & Other Documentation section of the web page for this SWMP.

#### POST CONSTRUCTION STORMWATER FACILITIES

Permitted facility has no on-site permanent post construction stormwater control measures constructed, adjacent to permitted area or maintained by permittee

☑ Permanent post construction stormwater control measures exist withing the larger common plan of development. The developer remains the responsible party for permanent post construction stormwater facilities.

- □ Permitted facility has permanent post construction stormwater control measures
- □ These control measures were constructed under the direction of the Operator/owner(s).
- □ Following final stabilization and permit termination the Owner will be responsible for long term maintenance of these control measures.
- □ Following final stabilization and permit termination the entity responsible for long term maintenance of these control measures is, to the best of the preparer's, Operator's and Owner's ability, identified as:

Organization: Owner CAC Timnath LLC and Operator GLH Construction LLC NA.

#### DESCRIPTION OF PERMANENT POST CONSTRUCTION STORMWATER CONTROL MEASURES

The permitted facility will not have permanent post construction control measures. The storm drains receiving water from this property discharges to permanent water quality features, as described above in the Immediate Area Receiving Discharges, which were built by the developer.

#### TOP SOIL PRESERVATION

There was no topsoil on site as purchase was of completed lots, ready to build.

#### PRE-EXISTING VEGETATION NEAR RECEIVING WATERS

 $\boxtimes$  There are no receiving waters adjacent to the permitted area. As such this provision does not apply.

 $\Box$  Due to grading constraints there are no viable areas of pre-existing vegetation on the perimeter of this project which could be used to meet this requirement.

#### EXPOSED SOILS AND STEEP SLOPES

Adjacent to Tract A there is a short steep slope leading to Pinedale Drive. This area is owned by the developer and is scheduled to have a retaining wall installed and surrounding area stabilized. Currently, the developer has regraded and scarified Filing 8 area. The developer's erosion control plan indicates that finished lots will be stabilized prior to turn over to permittee. In anticipation that immediately upon turnover lots within a block will be excavated for basements or utilized for materials storage or stockpiles no temporary stabilization shall occur. In the event lots within a block will not be disturbed they will be stabilized as indicated in <u>TEMPORARY STABILIZATION</u>.

#### DOCUMENTED USE AGREEMENTS

Documented Use Agreements in effect at project initiation:  $\Box$  YES  $\boxtimes$  NO Documented Use Agreements implemented after project initiation:  $\Box$  YES

Documented use agreements, if they are in place, are catalogued in the Site Reference & Other Documentation section of the web page for the SWMP

#### **INSPECTION FREQUENCY**

The Inspection interval selected at the initiation of the project is noted below:

 $\boxtimes$  At least one inspection every 7 calendar days.

- □ Site discharges to a water body designated as an outstanding water by the Water Quality Control Commission.
- At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Post-storm inspections may be used to fulfill the 14-day routine inspection requirement.
- Alternate schedule approved by the Division. Documentation of the approval of the alternative inspection schedule by the division will be included as "other documentation

## PART I

## COVERAGES SPECIFIC TO PERMITTED AREA

This SWMP identifies and incorporates specific coverages described in CDPS COR40000 that are anticipated for this permitted area. Items not discussed are either presumed to be superseded by the application process, incorporated by reference, or will not apply to operations within this permitted area. Should site conditions change to require specific discussion of items omitted, the SWMP will be updated prior to the commencement of activities necessitating said change.

### TYPES OF DISCHARGES AUTHORIZED

This plan was developed to address potential discharges to state waters of stormwater and specified non-stormwater associated with construction activity. This includes, but is not limited to:

#### ALLOWABLE STORMWATER DISCHARGES

- Stormwater discharges associated with construction activity.
- Stormwater discharges associated with producing earthen materials, such as soils, sand, and gravel dedicated to providing material to a single contiguous site, or within <sup>1</sup>/<sub>4</sub> mile of a construction site (i.e. borrow or fill areas).
- Stormwater discharges associated with dedicated asphalt, concrete batch plants and masonry mixing stations associated with this permit and not covered under an alternative permit.

#### ALLOWABLE NON-STORMWATER DISCHARGES

Specific non-stormwater discharges are allowable under the permit if the discharges are identified in the SWMP and if appropriate control measures are in place. Identification of the potential for non-stormwater discharges is located in the Site Description Section under <u>Non-Stormwater</u> <u>Discharges</u>.

#### LIMITATIONS ON COVERAGE

The following discharges are not specifically allowed under the permit:

- Discharges of non-stormwater, except the authorized non-stormwater discharges listed above are not eligible for coverage under this permit.
- Discharges Currently Covered by another Individual or General Permit
- Discharges Currently Covered by a Water Quality Control Division Low Risk Guidance

### PERMIT CERTIFICATION AND SUBMITTAL PROCEDURES

As it has been determined as necessary to prepare a Stormwater Management Plan for this site and the permittee(s) has applied for, and received, a certification under COR 400000, the terms and conditions of Part IA. 3 a-e, g-I & k are incorporated into this plan through issuance of the permit certification by the State of Colorado. Information provided during the application process is included in the above section titled PERMIT SUMMARY INFORMATION

#### SIGNATORY REQUIREMENTS

All documents required to be submitted to the division by the permit must be signed in accordance with the following criteria:

• For a corporation: By a responsible corporate officer, defined as:

- a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation (Note: CDPHE has indicated minimum signatory positions to be a Director. Project Manager will not be accepted), or
- the manager of one or more manufacturing, production, or operating facilities, provided:
  - the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations;
  - initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations;
  - the manager can ensure that the necessary systems are established, or actions taken to gather complete and accurate information for permit application requirements;
  - and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
- For a partnership or sole proprietorship: By a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official.

#### COMPLIANCE DOCUMENTATION (FOR SUBMITTAL) SIGNATURE REQUIREMENTS

Documents required for submittal to the division in accordance with this permit, including applications for permit coverage and other documents as requested by the division, must include signatures by both the owner and the operator, except for instances where the duties of the owner and operator are managed by the owner. (special note: with the implementation of the new CEOS perming system it is unclear when co-permittee signatures will be required. As such, the CEOS system will make the final determination on who will sign the various forms for submittal.) Any person(s) signing documents required for submittal to the Division must make the following certification:

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

#### COMPLIANCE DOCUMENTATION (NON-SUBMITTED) SIGNATURE REQUIREMENTS

#### GENERAL DOCUMENTATION

Documents which are required for compliance with the permit, but for which submittal to the division is not required unless specifically requested by the division, must be signed by the individual(s) designated as the Qualified Stormwater Manager.

#### INSPECTION REPORT SIGNATORY REQUIREMENTS

Any person(s) signing inspection documents required for compliance with the permit must make the following statement and provide the state of the statement:

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

#### PERMIT TERMINATION

When all construction earth disturbing activities are completed and all disturbed areas have met the criteria for final stabilization requirements the permittee(s) shall submit an Inactivation Notice to the state in order to terminate the permit.

#### SALE OF RESIDENCE TO HOMEOWNER

For residential construction sites only: The permittee may remove residential lots from permit coverage once the lot meets the following criteria:

- A. The residential lot has been sold to the homeowner(s) for private residential use;
- B. A certificate of occupancy, or equivalent, is maintained on-site and is available during division inspections;
- C. The lot is less than one acre of disturbance;
- D. All construction activity conducted on the lot by the permittee is complete;
- E. The permittee is not responsible for final stabilization of the lot; and
- F. The SWMP was modified to indicate the lot is no longer part of the construction activity.

If the residential lot meets the criteria listed above, then activities occurring on the lot are no longer considered to be construction activities with a duty to apply and maintain permit coverage. Therefore, the permittee is not required to meet the final stabilization requirements and may terminate permit coverage for the lot.

#### EFFLUENT LIMITATIONS

This SWMP specifically addresses the requirement for control measures to be used to meet effluent limitations as follows:

- Implementing control measures to minimize the discharge of pollutants from all potential pollutant sources at the site.
- Assure installation of control measures prior to commencement of construction activities that may contribute pollutants to stormwater discharges.
- Ensure control measures selected are, designed, installed and maintained in accordance with good engineering, hydrologic and pollution control practices.
- Ensure control measures implemented at the site must be designed to prevent pollution or degradation of state waters.

#### STORMWATER POLLUTION PREVENTION REQUIREMENTS

This SWMP outlines the structural and/or nonstructural control measures, implemented at this permitted facility, that effectively minimize erosion, sediment transport, and the release of other pollutants related to construction activity.

#### PLANNED IMPLEMENTATION OF CONTROL MEASURES

#### SCHEDULING GUIDELINES.

Down-gradient perimeter controls, as indicated on the site plans, will be installed before site disturbance or construction activities performed by the operator begins. Additional control measures will be installed immediately prior to start of activities, and/or when installation can control sediment and/or erosion due to site disturbance.

Control measures will remain until construction is completed and final stabilization is achieved to an elevation below each control measure, and storm water discharge from previously disturbed areas no longer require control measures to address potential pollutants leaving the site.

Control measure implementation is generally more effective when done alongside the various stages of construction. While some phasing is obvious, other items, such as phased seeding and final stabilization, may be more difficult when considering seasons, cost effectiveness of staging or mobilization, and disturbance from additional activities. Such items cannot be predicted and will be addressed as conditions warrant.

The projected implementation of control measures by phase is listed in the table <u>Projected</u> <u>Schedule, Phasing, Control Measures And Maintenance Activities</u>. This table identifies the major phases and classifications of control measures. The table shows control measures added in progression. For example, control measures added in the initial phase (such as a concrete washout) are assumed to be in place through interim phase. The table will list the Concrete washout in the initial phase but not in the interim phase. The specific structural control(s) located on site are shown on the site map.

## **REQUIREMENTS FOR CONTROL MEASURES USED TO MEET EFFLUENT**

#### LIMITATIONS

Control measures implemented at the site are designed to minimize pollution or degradation of state waters. These control measure may include, but are not limited to, wattles/sediment control logs, silt fences, earthen dikes, drainage swales, sediment traps, subsurface drains, pipe slope drains, inlet protection, outlet protection, gabions, sediment basins, temporary vegetation, permanent vegetation, mulching, geotextiles, sod stabilization, slope roughening, maintaining existing vegetation, protection of trees, and preservation of mature vegetation.

#### SPECIFIC CONTROL MEASURES

The specific control measures identified below are, as appropriate, discussed in greater detail in the sections specific to Materials Handling and Potential Sources of Pollution. This cross reference will allow the SWMP to group classes of control measures with appropriate classifications of significant materials and potential pollutants. Specific control measures must meet the requirements listed below

#### VEHICLE TRACKING CONTROL

Structural and nonstructural vehicle tracking controls shall be implemented to minimize vehicle tracking of sediment from disturbed areas and may include tracking pads, minimizing site access, wash racks, graveled parking areas, maintaining vehicle traffic to paved areas, street sweeping and sediment control measures.

#### DISTURBED AND SOIL STORAGE AREAS

Stormwater runoff from all disturbed areas and soil storage areas must:

- Utilize or flow to one or more control measures to minimize erosion or sediment in the discharge.
- The control measure(s) must be selected, designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices for the intended application. The control measure(s) must contain, or filter flows in order to prevent the bypass of flows
- without treatment.
- Must be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions (e.g. sheet or concentrated flow).

#### SELECTION OF CONTROL MEASURES

Selection of control measures should prioritize the use of structural and nonstructural control measures that minimize the potential for erosion (i.e. covering materials). Selection should also prioritize phasing construction activities to minimize the amount of soil disturbance at any point in time throughout the duration of construction.

#### OUTLETS FROM BASINS AND IMPOUNDMENTS

Outlets that withdraw water from or near the surface shall be installed when discharging from basins and impoundments, unless infeasible. This is specific to all temporary sediment basin or traps and, depending on size and configuration may also include berms and ditches.

Such outlets must be installed such that they are, at a minimum, an emergency overflow built such that any releases will not erode the structure and cause an upset condition. Specifically, this requires, at a minimum, an emergency overflow structure installed as the lowest point in a berm with a substrate of compacted fill or geotextile fabric equivalent, and rip rap or other velocity control device that expends from the point of overflow to the point discharge from bare soils to a

stabilized or contained area. (Note: this reflects a minimum standard. Temporary sediment basins should also provide for a filtered release mechanism in addition to an emergency release unless site conditions or phasing make such an item impractical or infeasible.)

#### PRE-EXISTING VEGETATION NEAR RECEIVING WATERS

The owner/operator is required to maintain pre-existing vegetation, or equivalent control measures, for areas within 50 horizontal feet of receiving waters unless infeasible. Issues that determine if this is infeasible include, but are not limited to, the scope of the work (home building versus stream restoration), the grading requirements of the site, the phase of the project, the location of permanent stormwater detention facilities, utilities, stream crossing or other design features. When it is possible to maintain pre-existing vegetation, it will be so noted on the site map. When it is not feasible to maintain pre-existing vegetation equivalent or greater control measures will be put into place to protect receiving waters.

#### MINIMIZATION OF SOIL COMPACTION

Soil compaction must be minimized for areas where infiltration control measures will occur or where final stabilization will be achieved through vegetative cover. However, it must be noted that in Colorado, mitigation for swelling soils, MS4 requirements for soils compaction as well as most common engineering designs make this requirement impractical. As such, where infiltration control measures will occur or where final stabilization will be achieved through vegetative cover site management practices, such as roughening/ripping for soils infiltration, following design criteria for permanent post construction infiltration systems will be implemented as part of the construction standards. Additionally, rototilling, chisel plowing or discing soils for sod or seed will be implemented as part of final stabilization practices.

#### TOP SOIL PRESERVATION

Unless infeasible, topsoil shall be preserved for those areas of a site that will utilize vegetative final stabilization. Factors affecting feasibility are twofold: First, is there pre-existing topsoil? And, if so, is it a quality topsoil? Many sites in Colorado are located in areas where the pre-exiting vegetation is minimum, and the soil is of poor quality. In such cases it is common that as a part of final stabilization topsoil, or significant amendments to on site soils will be imported during final stabilization. Second, is there room to store topsoils and will the final stabilization require topsoil? Many infill or small lots simply have no room for storing topsoils. In such cases it is not uncommon that the final stabilization will require little or no topsoil as part of its final stabilization.

When it is practical to preserve and store topsoil appropriate control measures for containment and temporary stabilization will be implemented and stock pile locations will be noted on the site map.

#### EXPOSED SOILS AND STEEP SLOPES

The permit requires the operator to minimize the amount of soil exposed during construction activity, including the disturbance of steep slopes. Issues that determine if this is feasible include, but are not limited to, the scope of the work, the grading requirements of the site, the phase of the project and logistical considerations. Where exposed soils or steep slopes exist they will be

contained as appropriate and temporary stabilization requirements if such areas are to remain idle for more than 14 days.

### DIVERSION CONTROL MEASURES

Diversion control measures must minimize soil transport and erosion within the entire diversion, minimize erosion during discharge, and minimize run-on into the diversion. The permittee must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion. Diversions must meet one or more of the following conditions:

- Lined or piped structures that result in no erosion in all flow conditions.
- Diversion channels, berms, and coffer dams must be lined or composed of a material that minimizes potential for soil loss in the entire wetted perimeter during anticipated flow conditions (e.g. vegetated swale, non-erosive soil substrate). The entire length of the diversion channel must be designed with all of the following considerations: maximum flow velocity for the type of material(s) exposed to the anticipated flows to ensure that the calculated maximum shear stress of flows in the channel is not expected to result in physical damage to the channel or liner and result in discharge of pollutants. Additionally, the conditions relied on to minimize soil loss must be maintained for the projected life of the diversion (i.e. a vegetated swale must be limited to a period of time that ensures vegetative growth, minimizes erosion and maintains stable conditions).
- An alternative diversion criteria, approved by the division prior to implementation. The diversion method must be designed to minimize the discharge of pollutants and to prevent the potential for pollution or degradation to state waters as a result of the diverted flow through the diversion structure. In addition, the alternative diversion method must minimize the discharge of pollutants throughout the installation, implementation and removal of the diversion.

#### PRACTICES FOR OTHER COMMON POLLUTANTS

BULK STORAGE, 55 GALLONS OR GREATER Bulk storage of individual containers of 55 gallons or greater, for petroleum products and other liquid chemicals must have secondary containment, or equivalent protection, in order to contain spills and to prevent spilled material from entering state waters. There is an expanded discussion on policy and control measures for secondary containment practices in the Potential Pollution Sources section of this SWMP.

#### CONTROL MEASURES DESIGNED FOR CONCRETE WASHOUT WASTE

Control measures designed for concrete washout waste must be implemented. This includes washout waste discharged to the ground as authorized under this permit and washout waste from concrete trucks and masonry operations contained on site. The permittee must ensure the washing activities do not contribute pollutants to stormwater runoff or receiving waters. Discharges that may reach groundwater must flow through soil that has buffering capacity prior to reaching groundwater, as necessary to meet the effluent limits in this permit. The concrete washout location shall be not be located in an area where shallow groundwater may be present and would result in buffering capacity not being adequate, such as near natural drainages, springs, or wetlands. This permit authorizes discharges to the ground of concrete washout waste. There is an expanded discussion on policy and control measures for cementitious materials and waste concrete containment practices in the Potential Pollution Sources section of this SWMP.

#### STABILIZATION REQUIREMENTS

The following requirements will be implemented for this permitted facility.

#### TEMPORARY STABILIZATION

Per the permit, temporary stabilization must be implemented for earth disturbing activities on any portion of the site where ground disturbing construction activity has permanently ceased, or temporarily ceased for more than 14 calendar days.

The permit also stipulates that areas may exceed the 14-day schedule when either the function of the specific area of the site requires it to remain disturbed, or, physical characteristics of the terrain and climate prevent stabilization. In such instances The SWMP will:

- Document the constraints necessitating the alternative schedule.
- Provide the alternate stabilization schedule. •
- Identify all locations where the alternative schedule is applicable on the site map.

Methods of temporary stabilization are provided in on the site map. Identification of areas that have been temporary stabilized and the method of said stabilization are noted on the site map. Any additional stabilization planned in future will be noted in the Site Reference/Other Documentation section of the SWMP web page.

In instances when lots are completed during the fall or winter months when Sod is not available erosion control blanket or other soil binder will be used as a temporary stabilization.

## FINAL STABILIZATION

Final stabilization includes those measures taken to control pollutants in stormwater after soil disturbing activities are complete. Practices typically implemented to achieve final stabilization include paved areas, (asphalt and gravel), structures, sod, seed and mulch, blankets, shrubs, trees and decorative landscape material such as bark mulch and rock. See Final Stabilization in the Site Description section of this SWMP for site specific information . See also the Landscape Plans located in Control Measures section of the Web Page for this site. These plans will include, as appropriate seed mixes for the site.

Final stabilization must be implemented for all construction sites covered under this permit. Final stabilization is reached when (1), (2), and (3) below are complete:

- 1. All construction activities are complete.
- 2. Permanent stabilization methods are complete. Permanent stabilization methods include, but are not limited to, permanent pavement or concrete, hardscape, xeriscape, stabilized driving surfaces, vegetative cover, or equivalent permanent alternative stabilization methods. The division may approve alternative final stabilization criteria for specific operations. Vegetative cover must meet the following criteria:

  - a. Evenly distributed perennial vegetation, andb. Coverage, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site, and

3. The permittee must ensure all temporary control measures are removed from the construction site once final stabilization is achieved, except when the control measure specifications allow the control measure to be left in place (i.e. bio- degradable control measures).

Final stabilization must be designed and installed as a permanent feature. Final stabilization measures for obtaining a vegetative cover or alternative stabilization methods include, but are not limited to, the following as appropriate:

Seed mix selection and application methods; Soil preparation and amendments; Soil stabilization methods to provide adequate protection to minimize erosion (e.g. crimped straw, hydro mulch or rolled erosion control products);

Appropriate sediment control measures as needed until final stabilization is achieved

Discussion of final stabilization for this project is addressed in <u>Final Stabilization</u> in the Site Description section of this SWMP for site specific information

## MAINTENANCE

All Control measures identified in the SWMP will be maintained in effective operating condition and protected from activities that would reduce their effectiveness.

#### ROUTINE MAINTENANCE

Per the terms of the permit, the permittee(s) (operator) must ensure that all control measures:

- Remain in effective operating condition and are protected from activities that would reduce their effectiveness.
- Control measures must be maintained in accordance with good engineering, hydrologic and pollution control practices.
- Observations leading to the required maintenance of control measures can be made during a site inspection, or during general observations of site conditions.

The necessary repairs or modifications to a control measure requiring routine maintenance, must be conducted to maintain an effective operating condition.

#### INCORPORATION BY REFERENCE:

This plan further incorporates, by reference all general requirements listed in the General Permit under *Part 1B3 General Requirements*.

## PART II

## STORMWATER MANAGEMENT PLAN

This SWMP is prepared in two parts: the guidance narrative and the stormwater management plans (site plans) and was prepared in accordance with good engineering, hydrologic and pollution control practices. Changes or additions may be required to address changes in conditions at the site.

The Narrative was prepared by Open 8 Consulting. The site plans were prepared by a separate engineering firm as part of the Adams County grading and stormwater permit approval process

#### QUALIFIED STORMWATER MANAGER

The operator has identified individuals, who through previous experience with the construction stormwater regulations, specialized training, and by acceptance of the operator's internal policy for stormwater and erosion control are deemed Qualified Stormwater Managers.

The operators principal Qualified Stormwater Managers responsible for implementing the SWMP in its entirety, additional Qualified Stormwater Managers employed by the operator, and the principal third party Qualified Stormwater Managers utilized on site are listed in the Site Contact and Qualified Stormwater Manager section of the SWMP

#### SPILL PREVENTION AND RESPONSE PLAN

A formal Spill Prevention Control and Countermeasures Plan (SPCC) is not planned for this project. However, a spill prevention and response plan has been included in the Spill Response Procedures section of the web page for this SWMP, which includes methods and actions to be taken in response to a spill of petroleum or other non-stormwater related pollutant(s) that have the potential to discharge from the site. The spill response procedures must be implemented to prevent the release of pollutants. The plan additionally outlines post spill event reporting requirements, including the 24-hour notification process for hazardous materials

#### MATERIALS HANDLING

Significant materials used during construction, with the potential to impact stormwater discharges, will be stored, managed, used, and/or disposed of consistent with the permit requirements and in a method that minimizes the potential for contamination of stormwater discharges.

The SWMP describes and locates all control measures implemented at the site to minimize impacts from handling significant materials that could contribute pollutants to runoff. These handling procedures can include control measures for pollutants and activities. This includes but is not limited to; specific materials or chemicals, activities or practices, and certain classes of materials such as exposed storage of building materials, paints and solvents, landscape materials, fertilizers or chemicals, sanitary waste material, trash and equipment maintenance or fueling procedures.

The following section, Potential Sources of Pollution, identifies control measures selected initially or planned for later phases as needed, to minimize impacts for materials handling and significant materials that could contribute pollutants to runoff. As applicable, the exact locations of these materials, as well as the specific control measures selected to control them are located on the site map.

#### POTENTIAL SOURCES OF POLLUTION.

This SWMP identifies potential sources of pollution which may reasonably be expected to affect the quality of stormwater discharges associated with construction activity from the site. As applicable, the locations of these potential pollutants, as well as the specific control measures selected to control them are located in the separately listed Schedule and Control Measures worksheet. and/or on the site map.

The following discussion of potential sources of pollutions is organized in the order listed in the permit under Part1.c.2.a.ii. Within this listing are many potential pollutant sources that may overlap specific categories. For example: On-site waste management practices and non-industrial waste control measures are interconnected as wood waste generated during framing and worker generated food wrappers or bottles are generated in the same vicinity and disposed of in the same dumpsters. More interconnected are outdoor storage activities for chemicals, vehicle and equipment maintenance and fueling, routing maintenance activities, and significant materials handling. Control measures for all of these are significantly similar or identical and combine the elements designed for, at a minimum, containment for spill prevention and management of disturbed soils. Additional pollution sources, other than those specifically listed in the Materials Handling and Potential Source of Pollutants identified in the General Permit are worked into these items where appropriate.

#### POTENTIAL POLLUTANTS

Any items that could enter a storm sewer system and/or potentially contribute to degradation of State Waters, be they identified under the effluent limitations standard, materials handling section or as a potential source of pollutants, must adhere to the following guideline: Stormwater runoff downgradient from the potential pollutant must flow to at least one control measure to minimize its potential contribution to offsite discharge. This may be accomplished through filtering, settling, containment or straining.

The site conditions at the inception of the project includes significant materials considered potential sources of pollutants including, but not limited to, buildings, concrete pads, steel, plastic, glass, trash and debris associated with the abandoned greenhouse facility. For the purposes of this permit these items will be managed in two distinct manners.

1. The larger area, including points of discharge off the site, will follow the normal control measure selection process. This will specifically include

#### DISTURBED AND STORED SOILS

Stormwater runoff from all disturbed areas and soil storage areas for which permanent or temporary stabilization is not implemented, must flow to at least one control measure to minimize sediment in the discharge.

Control measures selected for this purpose must address the following:

- minimize sediment in discharges through filtering, settling, or straining or equivalent measures;
- be selected, designed, installed and adequately sized in accordance with good engineering, hydrologic and pollution control practices.
- control measure(s) must contain or filter flows in order to prevent the bypass of flows without treatment; and,
- control measure(s) must be appropriate for stormwater runoff from disturbed areas and for the expected flow rate, duration, and flow conditions anticipated at the site (i.e., sheet or concentrated flow).

#### DISTURBED AREAS

Prior to areas being disturbed by grading or excavation, and for stockpiles, transit areas located off a pre-established paved surface, materials storage where significant materials may exist and any areas where preexisting vegetation is disturbed must have at a minimum, a down gradient perimeter linear control measure(s), or equivalent. Such control measure(s) must be sufficient to control flows anticipated from the acreage in the immediate upgradient area.

During initial disturbance and site grading it may be impractical to meet this standard as the immediate upgradient area will be subject to over-excavation. In such instances, additional control measure(s) must be implemented to supplement the main perimeter control. This may include surface roughening for infiltration, ditches, compacted berms, terracing or utilization of haul roads to mimic any of the above control measures. (for example, a compacted raised haul road serves as a compacted berm, a lowered haul road serves as a ditch and grading phases often mimic site terracing.)

#### SOIL STORAGE AREAS

Stockpiles of soils, rock, landscape materials and other loose particulates have a pollutant potential based on:

- The size and weight of the material;
- Contaminants mixed with the material;
- Location of the material in relationship to receiving waters, paved roadways, inlets or other sensitive areas;
- Expected length of time material to remain in place; and,
- Overall size of stockpile.

Stockpiles should have appropriately sized containment controls (e.g earthen berms, diversion ditches, silt fence, etc.) Whenever possible, a buffer area of at least three to five feet should be maintained between the toe of the stockpile and the containment control. If such stockpiles are located immediately adjacent to the perimeter control, then additional controls may be required if the perimeter control is not sufficient to control both the upgradient acreage and the stockpile.

Stockpiles that will be in place for more than 14 days with no activity (no additions to or removal from the stockpile) require the installation of temporary or permanent erosion control such as blankets, tackifier, hydromulch, surface roughening and/or seeding, and such controls should be installed as soon as possible.

Standard industry practices differentiate the following from long term storage stockpiles as follows:

#### SMALL MATERIALS PILES

Small material piles, including landscaping material, squeegee, and sand, located within a protected materials storage area, on flat areas located away from paved surfaces, receiving waters and inlets, or other sensitive areas that are contained within appropriately sized BMPs, may not need additional protection. If additional protection is required, controls may include, but are not limited to compacted soil berms, diversion ditches and linear erosion controls such as wattles or silt fences.

#### BACKFILL

Back fill consists of materials removed from foundations or trenches that will be placed back in the excavation or trench within a short period of time (usually 8 to 72 hours), or trench bedding material such as squeegee or sand. The best control for backfill materials is to place it up-gradient to the area it was removed from so that any flow off the backfill pile will be contained within the excavated area. If such materials are placed adjacent to receiving waters, paved roadways, inlets or other sensitive areas, then additional protection may include, but is not limited to, linear erosion control such as compacted soil berms, diversion ditches, wattles or silt fences.

#### VEHICLE TRACKING OF SEDIMENTS

Vehicle tracking controls shall either be implemented to minimize vehicle tracking of sediment from disturbed areas, or the areas where vehicle tracking occurs shall, at a minimum consist of at least one control measure to minimize sediment in the discharge to be accomplished through filtering, settling, or straining. (Down gradient inlet protection does not qualify as such).

Effective structural vehicle tracking control measures include significant structural control measure (e.g. medium to large rip rap vehicle tracking control pads, cattle guards, or one of many trademarked control devices, and moderate structural control measures such as geotextile mats with rubber or bamboo bumpers, smaller riprap or other improvised devices.

Effective non-structural vehicle tracking control measures include but are not limited to: limiting vehicle access to unpaved areas, cleaning/scraping mud and sediment off equipment or tires before re-entering paved areas, and regularly scheduled and as-needed street sweeping/cleaning.

Per Part I.D.5.(a)vi (scope of inspections) the primary focus is where vehicles exit the site. Any area where vehicles transition from a paved surface (e.g. asphalt, concrete, gravel roads, fire access roads, other previously established unimproved travel surfaces, etc.) to previously undisturbed areas or active disturbances vehicle tracking controls must be considered. Some guidelines to determine the appropriate controls are as follows:

- Main access point(s) to the site should have a significant structural control measure device appropriate to the anticipated traffic.
- Temporary main access points in conjunction with, or as a temporary detour for, the main access point(s) should have, depending on the anticipated traffic and duration of use, a moderate structural control measure or a significant structural control measure.
- Main access point dedicated entrance only If an access point can be designated, and strictly enforced as "entrance only" and there is no potential for stormwater leaving the site uncontrolled from the location, it is allowable for no structural control measure to be installed. (Non-structural control measures including, but not limited to sweeping and access control are

still recommended.)

- Temporary access controls within the site, such as access behind the curb or newly created paved surfaces where access is required for extended use, stockpiling or significant materials delivery, require installation of, at a minimum, moderate structural controls.
- Daily use areas, including, but not limited to, minimal access for concrete trucks, materials delivery, limited equipment access (such as a loader or forklift entering the area, performing work and then leaving without returning for the same operation) must consider if site conditions, such as mud, could necessitate, at a minimum, a medium structural control measure. In dry conditions such access points may forgo structural tracking control measures if strict adherence to the following is in place:
  - Where stormwater flows will flow onto paved areas at least on down gradient linear control is in place.
  - Any resultant tracking must be swept as soon as possible, but no later than the close of the business day.
  - Any linear control in place are protected from damage. (straw wattles carefully removed and reinstalled properly after access; wattles designed for limited access remain structurally sound), or
  - Linear controls that will be removed for access must be reinstalled or replaced once the need for the access is completed.

#### MANAGEMENT OF CONTAMINATED SOILS

If contaminated soils are known to be present prior to project implementation this will discussed in the Site Description section of the SWMP. Additionally, if contaminated soils are encountered, all activity shall be stopped until the situation can be assessed. The Superintendent will be contacted for further direction. Small amounts of affected soils should be isolated from clean soils (placed on and covered with plastic or placed in 55-gallon drums) whenever possible until a remediation plan can be implemented. For larger amounts, or for specifically regulated items, such as asbestos containing concrete pipe, a specific management plan will be developed and included in the SWMP. All such instances will be noted on the site map.

#### LOADING AND UNLOADING OPERATIONS

Control measures for loading and unloading will determined by the type of materials being addressed and where they are to be stored. Issues to consider are sufficient tracking control, significant materials containment and location with respect to down gradient controls and avoidance of areas of concentrated flow. When practical, deliveries of materials to a stabilized staging area or materials storage area may benefit with overall site management.

#### OUTDOOR STORAGE ACTIVITIES

Storage of building products exposed to precipitation and or sheet flow must consider the type of material and the potential that material has to contribute to pollutants leaving the site. Erodible building materials are addressed in disturbed soils and soils storage areas above. Chemicals and fertilizers are addressed in Liquid Or Dry Significant Materials And Potential Pollutants. Considerations for outdoor storage activities include, but are not limited to:

- The potential for tracking caused by the delivery or day-to-day use of the materials.
- Distance from areas of concentrate or significant sheet flow, and,
- The potential of precipitation to cause sediment or chemical pollutants to mix with stormwater flows.

If materials to be delivered to a site can be maintained on a paved surface, and precipitation will not cause significant materials, chemicals or other potential pollutants to be comingled with stormwater runoff it is less likely to create off site discharges than if the same material was delivered to a non-paved materials storage area where increased tracking could occur from transporting material across disturbed soils.

#### VEHICLE AND EQUIPMENT MAINTENANCE AND FUELING

Vehicles entering the construction site should be properly maintained to prevent spills and leaks of hazardous fluids that would be exposed to stormwater. Vehicles used onsite will be inspected for leaks. Leaking vehicles will not be allowed to stay onsite, and the vehicle operator will be responsible for any necessary cleanup. Vehicles will not be parked in or near retention areas, natural drainage areas, storm sewer inlets or surface waters. If necessary, drip pans will be utilized for secondary protection of onsite vehicles until leaking vehicles can be removed from the site.

Generally, fuel, greases and other maintenance fluids used for light duty equipment will be used and removed from the site or stored in in closed construction trailers by the subcontractors. During fueling or maintenance operations items will be kept on mobile vehicles and not stored onsite.

Vehicle and equipment maintenance activities that must occur on site should be done in a manner to limit the potential discharge of petroleum products to paved surfaces. Any discharges of petroleum products should be managed as discussed in management of contaminated soils. When practical, all fueling activities should occur from storage tanks that are self-contained and do not remain on site. All vehicles and subcontractors' fueling equipment are responsible for providing spill containment. Fuel tanks and fueling areas set up on site must follow the appropriate guidelines for containment and discharges of petroleum products should be managed as discussed in management of contaminated soils. Finally, any maintenance or fueling activities which resulting in a spill must be assessed under the spill prevention documentation and reported as required.

#### SIGNIFICANT DUST OR PARTICULATE GENERATING PROCESSES

The most common dust generating process is active excavation, grading operations and stockpiling and (passive) wind blowing across these areas. Applying water or soil surfactants is the most common practices during active construction. Additional control measures are perimeter control fencing to break up wind patterns. Temporary stabilization requirements for inactive areas serve as appropriate control measures.

Saw cutting of concrete or other materials is a significant dust or particulate generating process. Spraying water on the area being cut is a standard industry practice. However, this process may cause cut materials to travel as sediment laden water with the potential to enter a storm sewer or discharge offsite. Additional linear and/or filtering control measures may be necessary in addition to dust remediation.

#### ROUTINE MAINTENANCE ACTIVITIES

Potential pollutants related to routine maintenance activities involving fertilizers, pesticides,

herbicides, detergents, fuels, solvents, oils, etc are all individually likely to occur. Fuel, greases and other maintenance fluids and herbicides, fertilizers and pesticides will be used and removed from the site by the subcontractors. Unless otherwise noted, during fueling or maintenance operations items will be kept on mobile vehicles and not stored onsite. All these items must be contained as described in containment and vehicle and equipment maintenance and fueling section. Additionally, any spills must follow the guidelines in the spill response plan and removal of contaminated soils.

#### ON SITE WASTE MANAGEMENT & NON-INDUSTRIAL WASTE SOURCES

Waste from products used on site (e.g. waste piles, liquid wastes, dumpsters, etc.), trash and debris and non-industrial waste sources such as worker trash and portable toilets are significant sources of potential pollutants.

Solid waste may be stored onsite provided it is managed to prevent discharges to storm sewer system, offsite or to receiving waters. Large waste, that which will not readily fit in a dumpster such as brush, trees, large concrete tear-out or large building materials may be collected and stored in a pile. Any such piles which have the potential for precipitation that runs-off from the pile to enter storm sewer systems, discharge offsite or flow to receiving waters require additional containment equal to the standards outlined in soil storage areas.

Generally, solid waste generated on this site will be disposed of in dumpsters provided by an outside contractor. The dumpsters will be kept at convenient locations and a licensed company will be contracted to empty the dumpsters as needed. The site project managers/superintendents will be responsible for monitoring the site to ensure that all site personnel and subcontractors utilize the proper waste disposal practices and facilities. Liquid wastes, including petroleum products and paint, are not allowed to be disposed of in solid waste dumpsters. Liquid hazardous wastes will be removed from the site and disposed of in accordance with all applicable Federal, state and local regulations.

The site project managers/superintendents will be responsible for monitoring the site to ensure worker generated trash and blown in trash is gathered and placed in dumpsters.

Portable sanitary facilities will be provided in a convenient, level location away from traffic areas, storm drains, or retention areas. Portable sanitary facilities must be staked or secured to the ground to prevent tipping over. A licensed company will be hired to maintain and clean the units, inspect the units for deficiencies, and keep the units in good working order. Sanitary waste will be cleaned as required by local regulations. The site project manager/superintendents will be responsible for ensuring that the units are properly utilized and maintained.

# DEDICATED ASPHALT OR CONCRETE BATCH PLANTS AND MASONRY MIXING STATIONS

It is not anticipated that a dedicated concrete or asphalt batch plant will be included with this project.

Portable masonry mixers are divided into two categories: small portable and fixed location.

Small portable masonry mixers are small enough to fit onto a vehicle or are often small trailer mounted, mechanical units with bagged cementitious materials and bagged (>100 pound) or small material piles of sand or gravel, added manually. These units may be active in a single location for less than half day to 5 – 7 days before being moved. As such, these units are not considered a dedicated masonry mixing station. None-the-less, during operations these units, the bagged materials and sand or gravel must be contained. The containment, which may be combined with perimeter control, must prevent discharges to storm sewer system, offsite or to receiving waters. This may be accomplished through linear barriers, earthen berms or other containment controls. Additional control measures for containing bagged cementitious material are required and control measures for materials stock piles may be necessary in addition the primary containment.

Fixed location portable masonry mixers are larger units feed by 500 pound or larger bags or steel silos. While these units may move during the course of the project, they are designed for use in a single location for several weeks or months. During operations these units, the cementitious materials and sand or gravel must be contained. The containment must prevent discharges to storm sewer system, offsite or to receiving waters. This may be accomplished through linear barriers, berms or other containment controls. Additional control measures for containing for materials stock piles may be necessary if it is located outside the primary containment.

#### IMPLEMENTATION OF CONTROL MEASURES

Control measures must be implemented to control all pollutant sources at the site. It is highly recommended to have redundant control measure in place to eliminate reliance on any one (or two) control measures. Where practicable this SWMP does that.

Control measures must be located:

- Prior to the stormwater leaving the control of the permittee, i.e.,
- Where the permittee can ensure the control measures' proper operation and maintenance;
- Prior to discharge to a receiving water defined as Waters of the United States; and
- Prior to discharge into a municipal storm sewer or other stormwater collection system not owned by the permittee (unless specific permission is granted).

#### DESIGN/IMPLEMENTATION SPECIFICATIONS

Design/implementation specifications for structural and non-structural control measures in use at the permitted facility, as well as specifications for other control measures that could be reasonably anticipated for this facility, are included in Error! Reference source not found.. Additional site-specific details for control measures that have been specifically designed, sized, or involve specific engineered details may be contained within the plan sets provided by the engineer of record.

The specifications detail the implementation of each control measure in accordance with good engineering hydrologic and pollution control practices; including as applicable drawings, dimensions, installation information, materials, implementation processes, control measure-specific inspection expectations, and maintenance requirements.

#### DOCUMENTED USE AGREEMENTS

Documented Use Agreements in effect at project initiation:  $\Box$  YES  $\boxtimes$  NO Documented Use Agreements implemented after project initiation:  $\Box$  YES

Documented use agreements, if they are in place, are catalogued in Appendix D – Other Documentation.

Documented use agreements between the operator and the owner or operator of any control measures located outside of the permitted area, utilized by this permittee's construction site for compliance with this permit, but not under the direct control of this operator are subject to documented use agreements to ensuring such control measures being utilized by the operator's construction site, are properly maintained and in compliance with all terms and conditions of the permit.

As appropriate for the specific control measure subject to the documented use agreement all information required of and relevant to any such control measures will be specified in the agreement. As appropriate installation specifications, design specifications and maintenance requirements will be located either in Error! Reference source not found. or in the engineer's plan set.

## SITE MAP

Maps showing the overall layout of the construction site, ongoing activity and location of control measures are provided in the site maps section of the web page for this facility SWMP. The plan reflects recommended control measures to protect the site from sediment and pollutant discharge

#### MAP CONTENTS

The site map is required to have, at a minimum, the following:

- Construction site boundaries;
- Flow arrows that depict stormwater flow directions on site and runoff directions
- All areas of ground disturbance including borrow and fill; (note: the areas of ground disturbance will be shown on the main erosion control map. Areas of cut and fill are shown on a separate map as standard MS4 permitting requirements and Engineering practice is to show cut an fill through contour lines for grading and erosion control maps.)
- Areas used for storage of building materials, equipment, soil or waste;
- Areas used for storage of soil; or waste;
- locations of all waste accumulation areas, including areas for liquid, concrete, masonry, and asphalt;
- locations of dedicated asphalt, concrete batch plants and masonry mixing stations;
- locations of all structural control measures;
- locations of all non-structural control measures;
- locations of springs, streams, wetlands and other state waters, including areas that require pre-existing vegetation be maintained within 50 feet of a receiving water, where determined feasible in accordance with Part I.B.1.a.i.(d).; and

• locations of all stream crossings located within the construction site boundary.

If any of these items are not present on site they will not be referenced on the site map.

#### UPDATES TO MAP

As the site evolves, the site plans will be updated to reflect lots under the operator's control and the current control measures present on the site at any given time. Handwritten changes to the site map are acceptable

## SWMP REVIEW AND REVISION

A record of SWMP changes, amendments or revisions made during the course of the project must be maintained. Any changes must include the date and identification of the changes. Changes to the SWMP may occur in any of the following ways:

- Handwritten notations in the body of the SWMP;
- Replaced pages of the SWMP showing strike and replace text;
- Notations on the site map;
- Replacing a cluttered and difficult to read map with a new copy reflecting only the current site conditions. (an exception to the inclusion of the date for changes will be in this instance. All control measures transferred from the old map will be treated as "existing" at that point in time.); or,
- Inclusion of new documentation such as newly implemented documented use agreements, newly issued groundwater discharge permits, management plans for contaminated soils, etc. Such documentation will be noted in OTHER DOCUMENTATION and, unless otherwise noted, will be included in Amendments

Amendments that must be made to the SWMP includes, but is not limited to:

- changes in design, construction, operation, or maintenance of the site requiring implementation of new or revised control measures;
- instances where the SWMP proves ineffective in controlling pollutants in stormwater runoff in compliance with the permit conditions;
- where control measures identified in the SWMP are no longer necessary and are removed; and,
- When corrective actions are taken onsite that result in a change to the SWMP.

#### REVISIONS

For SWMP revisions made prior to or following a change(s) onsite, including revisions to sections addressing site conditions and control measures, a notation must be included in the SWMP that identifies:

- The date of the site change;
- The control measure removed, or modified;
- The location(s) of those control measures,
- and any changes to the control measure(s).

The permittee must ensure the site changes are reflected in the SWMP. The permittee is noncompliant with the permit until the SWMP revisions have been made. It is logical that a single change may have to be noted in more than one location. For example, a new control measure is implemented for a previously unknown potential pollutant source. In such a case the pollutant source would have to be identified and its location shown on the site map. Additionally, a new control measure specification may need to be added.

#### SWMP AVAILABILITY

A copy of the SWMP must be provided upon request to the division, EPA, and any local agency with authority for approving sediment and erosion plans, grading plans or stormwater management plans within the time frame specified in the request. If the SWMP is required to be submitted to any of these entities, the submission must include a signed that the SWMP is complete and compliant with all terms and conditions of the permit. As this certification is required upon request

and as part of the request the State provides the most recent copy of this certification, a copy of the actual form is not provided in this SWMP.

All SWMPs required under this permit are considered reports that must be available to the public under Section 308(b) of the CWA and Section 61.5(4) of the CDPS regulations. The permittee must make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR Part 2.

## SITE INSPECTIONS

While site inspections must be conducted in accordance with the following requirements, these reflect a minimum frequency and do not affect the permittee's responsibility to implement and maintain control measures in effective operating condition as prescribed in the SWMP. Proper maintenance of control measures may require more frequent inspections.

#### COMMENCEMENT OF SITE INSPECTIONS

Site inspections shall start within 7 calendar days of the commencement of construction activities on site. This requirement includes, but is not limited to, the installation of initial control measures such as vehicle tracking control, silt fence, wattles, etc.

#### QUALIFICATIONS FOR CONDUCTING INSPECTIONS

The person(s) inspecting the site may be on the permittee's staff or a third party hired to conduct stormwater inspections under the direction of the permittee(s). The Inspector must be a qualified stormwater manager. The permittee has identified the qualified stormwater managers for this permit in Error! Reference source not found.

#### POST-STORM INSPECTIONS AT TEMPORARILY IDLE SITES

For permittees choosing to combine 14-day inspections and post-storm-event- inspections, if no construction activities will occur following a storm event, post-storm event inspections must be conducted prior to re-commencing construction activities, but no later than 72 hours following the storm event. The delay of any post-storm event inspection must be documented in the inspection record. Routine inspections must still be conducted at least every 14 calendar days.

#### INSPECTIONS AT COMPLETED SITES/AREAS

When the site, or portions of a site are awaiting establishment of a vegetative ground cover and final stabilization, the permittee must conduct a thorough inspection of the stormwater management system at least once every 30 days. Post-storm event inspections are not required under this schedule. This reduced inspection schedule is allowed if all of the following criteria are met:

- All construction activities resulting in ground disturbance are complete;
- All activities required for final stabilization, in accordance with the SWMP, have been completed
  - Exception: When the application of seed that has not occurred due to seasonal conditions or the necessity for additional seed application to augment previous efforts; and
- The SWMP and or Site Map has been amended to locate those areas to be inspected in accordance with the reduced schedule allowed for in this paragraph.

When or if the site meets criteria for inspections at completed sites and operator has implemented inspection at least once every 30 days this will be noted on the web page for this project an on individual inspection reports.

#### WINTER CONDITIONS INSPECTIONS EXCLUSION

This project will not meet the conditions of this exclusion. As such, it is excluded from this SWMP.

#### DELAY IN INSPECTIONS

The permit provides no exception to the inspection schedule other than those identified above. However, the permittee will add the following delay to meeting every 7 or 14 day inspection schedule: In instances where weather or other conditions would impede the inspector to safely access the site the inspection will be delayed until the inspector is able to access the site. This delay is most likely to be triggered, but not limited to, snow, blowing snow and/or road closures. This may include conditions on site, or on the travel routes to the site if highways are closed or the Colorado State Patrol, or local authorities have issued requests for limited travel. If a delay occurs due to such conditions the inspection will be rescheduled as soon as possible, usually the next day. Additionally, such conditions will be noted on the subsequent inspection report.

#### **INSPECTION SCOPE**

When conducting a site inspection, the following areas, if applicable, must be inspected for evidence of, or the potential for, pollutants leaving the construction site boundaries, entering the stormwater drainage system, or discharging to state waters:

- Construction site perimeter;
- All disturbed areas;
- Locations of installed control measures:
- Designated haul routes;
- Material and waste storage areas exposed to precipitation;
- Locations where stormwater has the potential to discharge offsite; and
- Locations where vehicles exit the site.

#### INSPECTION REQUIREMENTS

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

- Determine if there are new potential sources of pollutants.
- Assess the adequacy of control measures at the site to identify areas requiring new or modified control measures to minimize pollutant discharges.
- Identify all areas of non-compliance with the General Permit requirements

If necessary, implement corrective action in accordance with Part IB.1.c of the permit as outlined in the Maintenance timing section of this SWMP.

#### **INSPECTION REPORTS**

The permittee must keep a record of all inspections conducted for each permitted site. Completed inspection reports are located:

 $\Box$  In the back of this 3-ring binder  $\Box$  In a separate 3-ring binder

Compiled in an electronic format. Copies are available with 24 advance notice.

### INSPECTION REQUIRED ELEMENTS

The Inspection reports utilized by the permittee must identify any incidents of noncompliance with the terms and conditions of this permit. The inspection report includes:

- The inspection date;
- Name(s) and title(s) of personnel conducting the inspection;
- Weather conditions at the time of inspection;
- Phase of construction at the time of inspection;
- Estimated acreage of disturbance at the time of inspection;
- Location(s) and identification of control measures requiring routine maintenance:
- Description of the minimum inspection frequency utilized when conducting each inspection;
- Deviations from the minimum inspection schedule; and,
- Location(s) and identification of discharges of sediment or other pollutants from the site;\*
- Location(s) and identification of inadequate control measures;\*
- Location(s) and identification of additional control measures needed that were not in place at the time of inspection\*
- \*Descriptions of corrective action(s), dates corrective action(s) were completed, including requisite changes to the SWMP, as necessary must be included in the report per the Post Inspection Requirements section below.

### POST INSPECTION REQUIREMENTS/CORRECTIVE ACTIONS

The permittee must take all necessary steps to minimize or prevent the discharge of pollutants from the permitted area and manage any stormwater run-on onto the site until a control measure is implemented and made operational and/or an inadequate control measure is replaced or corrected and returned to effective operating condition. If it is infeasible to install or repair the control measure immediately after discovering the deficiency, the following must be documented in the SWMP.

- Describe why it is infeasible to initiate the installation or repair immediately; and
- Provide a schedule for installing or repairing the control measure and returning it to an effective operating condition as soon as possible.

If applicable, the permittee must remove and properly dispose of any unauthorized release or discharge within and from the permitted area (e.g., discharge of non-stormwater, untreated stormwater containing pollutants, spill, or leak not authorized by this permit.) The permittee must also clean up any contaminated surfaces, if feasible, to minimize discharges of the material in subsequent storm events, including water remaining from the response that contains pollutants after active emergency firefighting response is complete.

## FINAL STABILIZATION

Final stabilization includes those measures taken to control pollutants in stormwater after soil disturbing activities are complete. Practices typically implemented to achieve final stabilization include paved areas, (asphalt and gravel), structures, sod, seed and mulch, blankets, shrubs, trees and decorative landscape material such as bark mulch and rock. See Final Stabilization in the Site

Description section of this SWMP for site specific information . See also the Landscape Plans located in Control Measures section of the Web Page for this site. These plans will include, as appropriate seed mixes for the site.

Final stabilization must be implemented for all construction sites covered under this permit. Final stabilization is reached when (1), (2), and (3) below are complete:

- 4. All construction activities are complete.
- 5. Permanent stabilization methods are complete. Permanent stabilization methods include, but are not limited to, permanent pavement or concrete, hardscape, xeriscape, stabilized driving surfaces, vegetative cover, or equivalent permanent alternative stabilization methods. The division may approve alternative final stabilization criteria for specific operations. Vegetative cover must meet the following criteria:
- a. Evenly distributed perennial vegetation, and
  b. Coverage, at a minimum, equal to 70 percent of what would have been provided by native vegetation in a local, undisturbed area or adequate reference site, and
  6. The permittee must ensure all temporary control measures are removed from the construction site once final stabilization is achieved, except when the control measure specifications allow the control measure to be left in place (i.e. bio- degradable control measure) measures).

Final stabilization must be designed and installed as a permanent feature. Final stabilization measures for obtaining a vegetative cover or alternative stabilization methods include, but are not limited to, the following as appropriate:

Seed mix selection and application methods; Soil preparation and amendments; Soil stabilization methods to provide adequate protection to minimize erosion (e.g. crimped straw, hydro mulch or rolled erosion control products);

Appropriate sediment control measures as needed until final stabilization is achieved

Discussion of final stabilization for this project is addressed in Final Stabilization in the Site Description section of this SWMP for site specific information

## MAINTENANCE

All Control measures identified in the SWMP will be maintained in effective operating condition and protected from activities that would reduce their effectiveness.

#### ROUTINE MAINTENANCE

Per the terms of the permit, the permittee(s) (operator) must ensure that all control measures:

- Remain in effective operating condition and are protected from activities that would reduce their effectiveness.
- Control measures must be maintained in accordance with good engineering, hydrologic and pollution control practices.
- Observations leading to the required maintenance of control measures can be made during a site inspection, or during general observations of site conditions.
- The necessary repairs or modifications to a control measure requiring routine maintenance, must be conducted to maintain an effective operating condition.

## PART III

## PERMIT STANDARD CONDITIONS

This stormwater plan incorporates by reference all items of the permit identified as *Standard Permit Conditions - Part II.A-K.* & *P-Y*.

#### **REPORTING REQUIREMENTS**

#### PLANNED CHANGES

The permittee shall give advance notice to the division, in writing, of any planned physical alterations or additions to the permitted facility in accordance with 40 CFR 122.41(l) and Regulation 61.8(5)(a). Notice is required only when:

- The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
- The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged.
- This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.41(a)(1).

#### ANTICIPATED NON-COMPLIANCE

The permittee shall give advance notice to the division, in writing, of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements. The timing of notification requirements differs based on the type of non-compliance as described below:

#### TRANSFER OF OWNERSHIP OR CONTROL

The permittee shall notify the division, in writing, ten (10) calendar days in advance of a proposed transfer of the permit. This permit is not transferable to any person except after notice is given to the division.

Where a facility wants to change the name of the permittee, the original permittee (the first owner or operators) must submit a Notice of Termination. In this case the new owner or operator must submit an application.

A permit may be automatically transferred to a new permittee if:

- The current permittee notifies the Division in writing 30 calendar days in advance of the proposed transfer date; and
- The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and
- The division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit; and,
- Fee requirements of the Colorado Discharge Permit System Regulations have been met.

#### MONITORING REPORTS

If deemed required, monitoring results must be reported at the intervals specified in this permit per the requirements of 40 CFR 122.41(l)(4).

#### COMPLIANCE SCHEDULES

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit, shall be submitted on the date listed in the compliance schedule section. The fourteen (14) calendar day provision in Regulation 61.8(4)(n)(i) has been incorporated into the due date.

#### TWENTY-FOUR HOUR REPORTING

In addition to the reports required elsewhere in this permit, 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:

- Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;
- Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;
- Circumstances leading to any upset which causes an exceedance of any effluent limitation in the permit; and,
- Daily maximum violations for any of the pollutants limited by Part I of this permit.

This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance. The division may waive the written report required under subparagraph 6 of this section if the oral report has been received within 24 hours.

#### OTHER NON-COMPLIANCE

A permittee must report all instances of noncompliance at the time monitoring reports are due. If no monitoring reports are required, these reports are due at least annually in accordance with Regulation 61.8(4)(p).

#### OTHER INFORMATION

Where a permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to the Permitting Authority, it has a duty to promptly submit such facts or information.

#### BYPASS

A bypass is the intentional diversion of waste streams from any portion of a treatment facility in accordance with 40 CFR 122.41(m)(1)(i) and Regulation 61.2(12).

#### BYPASS NOT EXCEEDING LIMITATIONS

The permittees may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.M.2 of the permit.

#### NOTICE OF ANTICIPATED BYPASS.

If the permittee knows in advance of the need for a bypass, the permittee must submit prior notice, if possible, at least ten days before the date of the bypass

#### **PROHIBITION OF BYPASS**

Bypasses are prohibited and the division may take enforcement action against the permittee for bypass, unless:

- the bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;
- there were no feasible alternatives to the bypass;
  - such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime.
  - This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- proper notices were submitted to the division.

#### UPSET

An upset is an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation in accordance with 40 CFR 122.41(n) and Regulation 61.2(114).

#### EFFECT OF AN UPSET

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements the permit are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review in accordance with Regulation 61.8(3)(j).

The conditions necessary for demonstration of an upset by a permittee who wishes to establish the affirmative defense of upset, demonstrated through properly signed contemporaneous operating logs, or other relevant evidence that all the following conditions were met:

- an upset occurred and the permittee can identify the specific cause(s) of the upset;
- the permitted facility was at the time being properly operated and maintained;
- the permittee submitted proper notice of the upset as required in Part II.L.6.(24- hour notice); and
- the permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

#### **BURDEN OF PROOF**

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

#### **RETENTION OF RECORDS**

Copies of documentation required by this permit, including records of all data used to complete the application for permit coverage to be covered by this permit, must be retained for at least three

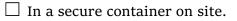
years from the date that permit coverage expires or is terminated. This period may be extended by request of EPA at any time.

ON-SITE RECORDS RETENTION

The SWMP for this site is located:

🗌 On site

 $\Box$  In the construction office.



 $\hfill\square$  In a consolidated construction office located near that site.

 $\boxtimes$  Compiled in an electronic format. Copies are available with 24 advance notice.

See the INSPECTION REPORTS sections for location of inspection reports.

## OTHER DOCUMENTATION

As the project progresses other SWMP related documentation added to the project will be noted on the web page for the project in the section listed as Other Documentation with, as appropriate the date and location if not in that specific section.