

APPENDIX C

**STORMWATER POLLUTION PREVENTION PLAN
FOR CONSTRUCTION ACTIVITIES**

STORM WATER POLLUTION
PREVENTION PLAN (SWPPP) FOR
CONSTRUCTION ACTIVITIES

FOR

BAYOU CASOTTE ENERGY LLC
CASOTTE LANDING NATURAL GAS
IMPORT TERMINAL
PASCAGOULA, MISSISSIPPI

Bayou Casotte Energy LLC
Casotte Landing Natural Gas Import Terminal
Address To Be Established
Pascagoula, Mississippi, 39567

January 2006

LIST OF ACRONYMS

BMPs	Best Management Practices
CFR	Code of Federal Regulations
CUSA	Chevron U.S.A.
DOT	Department of Transportation
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
FERC	Federal Energy Reserve Commission
LNG	Liquefied Natural Gas
MDEQ	Mississippi Department of Environmental Quality
MSDS	Material Safety Data Sheets
N/A	Not Applicable
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
SWPPP	Storm Water Pollution Prevention Plan

OWNER’S 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 gathered and evaluated 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.”

Company: _____

Signed: _____

Printed Name: _____

Title: _____

Date: _____

Table of Contents (cont.)

Section	Page No.
LIST OF ACRONYMS	1
RECORD OF REVISIONS	2
OWNER’S CERTIFICATION	3
A. SCOPE	6
B. GENERAL INFORMATION	6
B.1. PROJECT OWNER AND OPERATOR.....	6
B.2. PROJECT CONTACT INFORMATION.....	6
B.3. PROJECT LOCATION.....	6
B.4. RECEIVING WATER BODY FOR STORM WATER DISCHARGES	6
B.5. POTENTIAL SOURCES OF POLLUTION AT THE PROJECT SITE	6
C. SITE DESCRIPTION	7
C.1. PROPOSED PROJECT DESCRIPTION	7
C.2. REGULATORY BASIS.....	7
C.3. IMPLEMENTATION PRIOR TO CONSTRUCTION.....	7
C.4. CONSTRUCTION SCHEDULE	10
C.5. SOILS DESCRIPTION.....	14
C.6. STORMWATER RUNOFF AND RECEIVING WATERS	14
D. SEDIMENTATION AND EROSION CONTROLS	14
D.1. EROSION AND SEDIMENT CONTROLS CRITERIA.....	15
D.2. STRUCTURAL PRACTICES	16
D.3. STABILIZATION PRACTICES.....	17
E. OTHER POLLUTION CONTROLS	19
E.1. CHEMICAL STORAGE AREA	19
E.2. FUELING AND MAINTENANCE AREA	20
E.3. WASTE STORAGE AREA.....	20
F. APPROVED STATE, TRIBAL OR LOCAL PLANS	20
G. MAINTENANCE	20
H. INSPECTIONS	21
H.1. CONSTRUCTION INSPECTION RESPONSIBILITIES.....	21
H.2. POST CONSTRUCTION INSPECTION RESPONSIBILITIES	22
H.3. INSPECTION DOCUMENTATION	22
H.4. RETENTION OF RECORDS	22
I. NON-STORM WATER DISCHARGES	23
I.1. HYDROSTATIC TESTING.....	23
J. PROPER OPERATIONS AND MAINTENANCE	23
K. SPILL PREVENTION	23
K.1. GOOD HOUSEKEEPING	24
K.2. HAZARDOUS PRODUCTS	24
K.3. PRODUCT SPECIFIC PRACTICES	24
L. TRAINING	25
M. TERMINATION OF PERMIT COVERAGE	25

Table of Contents (cont.)

Figures

**TO BE ADDED PRIOR TO COMMENCEMENT OF CONSTRUCTION
ACTIVITIES**

- Figure 1 Project Location
- Figure 2 Site Storm Drainage Plan
(Available in Volume IV, Figure 1.5.2.1-3)

Attachments

**TO BE ADDED PRIOR TO COMMENCEMENT OF CONSTRUCTION
ACTIVITIES**

- Attachment 1 U.S.G.S. 7.5 Minute Quadrangle Topographic
Site Map and Arial Photograph Jackson
County
- Attachment 2 Notice of Intent (NOI), NPDES Permit, and
Notice of Termination (NOT) of Coverage
- Attachment 3 Inspection Forms
 - Daily Inspection Form/Litter Control
Checklist
 - General Site Control/Post-Storm Checklist
 - MDEQ Inspection and Certification Form
 - MDEQ Inspection Suspension Form
 - Bayou Casotte Energy Post Construction
Inspection Report Stabilization Monitoring

A. SCOPE

This Storm Water Pollution Prevention Plan (SWPPP) prescribes requirements for identifying potential pollution sources and establishing Best Management Practices (BMPs) which include sediment, erosion and other controls, stabilization and structural practices, stormwater management, proper operations and maintenance, and inspections for the construction project described herein.

B. GENERAL INFORMATION

B.1. PROJECT OWNER AND OPERATOR

Bayou Casotte Energy LLC, a subsidiary of Chevron U.S.A.
1500 Louisiana Street
Houston, Texas 77002

B.2. PROJECT CONTACT INFORMATION

Company:	Bayou Casotte Energy LLC
Name of contact:	Michael J. De Nicola
Office Telephone:	832-854-6228
Cellular Telephone:	713-560-2235
Fax Number:	832-854-6283

B.3. PROJECT LOCATION

Bayou Casotte, Jackson County, Mississippi

B.4. RECEIVING WATER BODY FOR STORM WATER DISCHARGES

Bayou Casotte Channel

B.5. POTENTIAL SOURCES OF POLLUTION AT THE PROJECT SITE

Sediment from land disturbances; construction debris and trash; minor petroleum leaks from construction equipment.

C. SITE DESCRIPTION

C.1. PROPOSED PROJECT DESCRIPTION

Bayou Casotte Energy proposes to build and operate an onshore liquefied natural gas (LNG) import terminal and associated facilities (Terminal) south of the existing Chevron U.S.A. (CUSA) Pascagoula Refinery (Pascagoula Refinery) on Bayou Casotte, just east of Pascagoula, Mississippi, in Jackson County. The proposed Casotte Landing Natural Gas Import Terminal Project (Casotte Landing, Project, or Terminal) includes construction of a slip and berth for offloading LNG carriers, relocation of existing Refinery Berths 6 and 7, and construction of facilities to receive and regasify LNG for transport into nearby existing United States (U.S.) natural gas transmission grid.

C.2. REGULATORY BASIS

The state of Mississippi has been authorized by the U.S. Environmental Protection Agency to issue National Pollutant Discharge Elimination System (NPDES) permit coverage for storm water discharges to surface waters of the state. The Mississippi Department of Environmental Quality (MDEQ) is the regulatory agency that issues permit coverage under the NPDES program for the state of Mississippi. On June 10, 2005, MDEQ issued NPDES General Permit No. MSR10 for the discharge of storm water from construction sites for land disturbing activities of 5 acres or more located within the state of Mississippi.

Issuance of permit coverage is conditional upon payment of applicable fees, completion and certification of an applicable SWPPP for the construction site, and submittal of a completed Notice of Intent (NOI) application form. Authorization to discharge storm water from construction activities under the terms and conditions of the NPDES general permit is granted two (2) days after the date the completed NOI is postmarked. A NPDES Storm Water General Permit for Construction Activities in Region 4, a copy of the permit NOI is attached (see Attachment 2).

C.3. IMPLEMENTATION PRIOR TO CONSTRUCTION

The SWPPP must be prepared and implemented prior to the commencement of site modifications. Therefore, upon determination of the construction contractor, this SWPPP will be finalized and certified prior to the commencement of construction activities.

The site operator shall ensure that individuals responsible for the implementation, maintenance and inspection of all BMPs prescribed in this SWPPP have been trained in the proper function and maintenance of storm water pollution prevention controls. The prescribed sedimentation and erosion controls for the site modifications will be constructed or installed prior to land disturbing activities. The site operator will administer the practices stated in this SWPPP as well as

requirements detailed in the NPDES general permit until site modifications are complete.

If anticipated conditions or BMPs change during site modifications, it will be necessary to revise this SWPPP to accurately reflect the conditions and controls in use at the site. The Record of Revisions page (Page 1) shall be utilized for and revisions made to the SWPPP following the initial certification.

The following pre-construction activities will be implemented prior to beginning the construction schedule, as described in C.4.

1. Obtain applicable permits and plan approval.
2. Conduct a pre-construction conference prior to starting work including Bayou Casotte Energy's Construction Manager, construction inspector (trained for environmental inspection), and contractors.
3. Install erosion control measures and practices prior to or concurrent with commencement of land disturbing activities, including construction entrances and exits, silt fences, interceptor dikes, temporary culverts (if needed), and temporary wetland and waterbody crossings, as indicated in this Stormwater Pollution Prevention Plan (SWPPP).

Insert Figure 1 Project Location

C.4. CONSTRUCTION SCHEDULE

The schedule of major construction activities are listed below. The schedule reflects three key areas: 1) the Onshore LNG Storage Facilities, which defines the critical path of the schedule; 2) the Marine Facilities; and 3) the Vaporization Facilities.

1.) Onshore LNG Storage Facilities – Duration: 35 Months**A.) Preliminaries – Duration: 9 Months**

1. Site Layout – temporary on-site facilities required for construction of the Project components. Included in the plan are:
 - Contractor office/change/tool trailer area;
 - Construction parking;
 - Workshop/pre-assembly areas;
 - On-site concrete batching plant; and
 - Material laydown areas.
2. Excavation Depth – some below grade excavations will be required – these excavations are typically ten feet or less, except for the LNG spill impoundment basins. The following excavations are anticipated for the various facilities of the Project:
 - Miscellaneous footings;
 - LNG spill impoundment basin (approx. 30 ft. below finished Terminal grade);
 - LNG unloading lines;
 - Cooling lines (in part); and
 - Firewater piping and firewater piping loop around the process area will be installed underground.
3. Existing structure demolition
 - Existing buildings and concrete structures;
 - Existing Berth #7;
 - Topside demolition; and
 - Berth structure demolition.

B.) Prefabrication – Storage Tank Duration: 22 Months**C.) Materials and Equipment Delivery – Duration: 25 Months**

Materials and equipment procured offshore will be shipped from the place of origin to an appropriate local port (Pascagoula, Mobile, or New Orleans) and either unloaded (if final transportation to site will be undertaken by road) or trans-shipped onto barges (if the equipment or materials will be delivered to the Terminal site via marine transport).

D.) LNG Storage Tanks Construction – Duration: 25 Months

- The tank area will be filled, consolidated, and graded to the required level for the piling operations to be undertaken.
 - Piles will be installed in accordance with a specific predetermined sequence.
- E.) Construction of other Facilities – foundations, pipe racks, Terminal buildings, electrical and mechanical equipment — Duration: 19 months
- F.) Hydrotesting and Pneumatic Testing of the LNG Storage Tanks and Pipework — Duration: 2 months
- G.) Restoration – final grading, erosion control — Duration: 11 months

Areas of property disturbed by construction of the proposed facilities will be stabilized with temporary erosion controls until construction is complete. Unless covered by equipment, gravel or other covering, Terminal site areas will be seeded to establish a grass cover in compliance with the FERC Upland Erosion Control, Revegetation and Maintenance Plan (Plan) and Wetland and Waterbody Construction and Mitigation Procedures (Procedures) and project specifications.

2.) Marine Facilities — Duration: 21 months

A.) Sequence 1, Duration: 7.5 months

- Remove existing foundations and underground structures within proposed slip area.
- Drive piles for trestle, unloading platform, and breasting/mooring dolphins for New Berth #6. Work shall proceed outward from shore to minimize disruption of Crude Berth #6 and #7 operations.
- Construct trestle and unloading platform for New Berth #6.
- Build earthen dam or install temporary sheet pile wall between area to be excavated and Bayou Casotte.
- Install temporary sheet pile wall on south and east side of Berth #7 trestle.
- Excavate down to water table with land-based equipment.

B.) Sequence 2, Duration: 3.5 months

- Construct breasting and mooring dolphins for New Berth #6. Install piping and topside equipment.
- Remove portion of earthen dam or temporary sheet pile wall to allow access to dredge areas of slip.
- Commence dredging slip below water table by creating opening from channel to slip.

C.) Sequence 3, Duration: 3 months

- Continue initial dredging of slip.

- Mobilize equipment into slip to begin construction in slip.
- Drive piles for dolphins, trestle, unloading platform for New LNG Berth in slip.

D.) Sequence 4, Duration: 3 months

- Complete initial dredging of slip.
- Construct trestle and unloading platform for New LNG Berth in slip.
- Drive piles for trestle, unloading platform, breasting dolphins, and half of the mooring dolphins for New Crude Berth #7 in the slip.
- Construct trestle for New Crude Berth #7 in slip.
- Drive piles for tug dock.
- Begin installation of slope protection on south face of slip.

E.) Sequence 5, Duration: 2 months

- Complete unloading platform construction and construct breasting dolphins for New LNG Berth in slip.
- Construct unloading platform for New Crude Berth #7 in slip.
- Shutdown operations on Existing Berth #7 and remove equipment and piping from trestle and platform.
- Shutdown and remove remaining piping and equipment on Old Existing Berth #6.
- Construct tug dock.
- Continue installing slope protection on south and east faces of slip.

F.) Sequence 6, Duration: 2 months

- Complete breasting dolphin construction and start mooring dolphin construction for new LNG Berth in slip.
- Complete unloading platform construction for New Crude Berth #7 in slip.
- Demolish Existing Berth #7 marine structures, beginning with southerly dolphins and working to the north.
- Remove temporary sheetpile wall adjacent to Existing Berth #7 and Dredge.
- Drive remaining piles for mooring dolphins for New Crude Berth #7 in slip.
- Construct breasting dolphins for New Crude Berth #7 in slip.
- Continue installing slope protection for New Crude Berth #7.
- Demolish remaining Old Existing Berth #6 marine structures.

G.) Sequence 7, Duration: 3 months

- Complete mooring dolphin construction for New LNG Berth in slip.
- Install piping and equipment on New LNG Berth in slip.
- Complete construction of New Berth #7 breasting dolphin and construct mooring dolphins.
- Install piping and topside equipment on New Crude Berth #7 in slip.
- Complete removal of Existing Berth #7 marine structures.
- Complete removal of remaining slip excavation and dredge material within slip area.
- Continue slope protection installation.

H.) Sequence 8, Duration: 2 months

- Commission New LNG Berth in slip.
- Commission New Berth #7.
- Complete installation of slope protection.

3.) Vaporization Facilities — Duration: 24 months

Construction of the Vaporization Facility, which encompasses the core process facilities including the IFV's, BOG compressors, send out pumps, as well as the topsides to the marine facilities, pipe racks, auxiliary equipment and the controls/administration facilities.

C.5. SOILS DESCRIPTION

Site modifications at the LNG Terminal will require surface soils to be disturbed in some portions of the site. According to the Soil Survey Geographic Database for Jackson County, Mississippi, the proposed Casotte Landing project is dominated by three soil series. These include the following:

- Norfolk fine sandy loam series (north): 2 to 5 percent slopes; it is moderately well drained and it has a moderate water capacity. Typical soil types associated with Norfolk series includes the Atmore loam, Bayou sandy loam, Ocilla loamy sand, Harleston fine sandy loam, and Smithton loam.
- Tidal marsh series (south): contains mucky soils that are generally found in association with flat terrain. These soils are drained poorly and are often inundated. The tidal marsh series comprises a large proportion of the coastline in southeastern Mississippi. It is the underlying stratum for much of the local wetlands found near the proposed project area, including Grand Bay Swamp.
- Udorthents (i.e. - dredged deposits): large portions of the Casotte Landing project are situated on these soils that have developed as a result of either the dredging of Bayou Casotte or the intentional placement of dolomite fill within large sections of the proposed terminal location.

C.6. STORMWATER RUNOFF AND RECEIVING WATERS

Stormwater will be carried by surface ditches and swales that run alongside the roads and hurricane levee. The stormwater will then be collected in catch basins located throughout the site.

Runoff from the proposed project area will be channeled from the catch basins via ditches or sewer pipes (as appropriate) and discharged into Bayou Casotte. This is the only receiving water associated with the LNG Terminal. Figure 2, Site Storm Drainage Plan, depicts the general drainage patterns during construction. *This figure was submitted to the Commission on September 30, 2005, as part of Volume IV, Figure 1.5.2.1-3.*

D. SEDIMENTATION AND EROSION CONTROLS

Soil erosion and sediment controls are measures that are used to reduce the amount of soil particles that may be carried off the work site land area and deposited into receiving waterbodies. The purpose of this SWPPP is to identify and discuss the controls that are prescribed for the proposed project area to prevent the release of pollutants associated with construction activities to waters of the state. The following section details the Best Management Practices (BMPs) that will be used for sedimentation and erosion control.

This SWPPP prescribes the following structural and stabilization (i.e. - revegetation) BMPs for sedimentation and erosion control, storm water management, and stabilization process at the LNG Terminal.

Structural

- Hay bales;
- Interceptor dikes;
- Silt fences;
- Drainage Swales.

Stabilization

- Temporary seeding;
- Permanent seeding;
- Mulching
- Vegetative buffer strips;
- Protection/preservation of trees;
- Upland revegetation.

A description of selected standards to be applied during construction, including storm water management, erosion control, structural, and stabilization practices, is included below.

D.1. EROSION AND SEDIMENT CONTROLS CRITERIA

- The construction phase erosion and sediment controls will be designed to retain sediment on-site to the extent practical. The controls will include but are not limited to silt fences or hay bales, interceptor dikes, trench plugs, etc.
- All control measures will be properly selected, installed, and maintained in accordance with manufacturers' specifications and good engineering practices.
- Daily and weekly inspections will be conducted and if inspections or other information indicate a control is being used inappropriately or incorrectly, the controls will be replaced or modified for the site situation.
- If sediment escapes the construction site, off-site accumulations of sediment will be removed as frequent as necessary to minimize off-site impacts.
- Controls will be implemented to prevent litter, construction debris, equipment fuel and construction materials from being exposed to storm water and becoming a pollutant source for storm water discharges (e.g. screening outfalls, picking up debris and litter daily and storing chemicals inside secondary containment facilities).
- Bayou Casotte Energy's Construction Manager, contractors, and subcontractors will be responsible for implementation of the applicable control measures (outlined above), as well as being responsible for monitoring and maintaining these control measures during each phase of construction activities.

D.2. STRUCTURAL PRACTICES

Structural practices will be used to divert flows from exposed soils, store flows or otherwise limit runoff from exposed areas. Construction work will be completed in consecutive sections to minimize the duration the back-filled material will be exposed, which should ultimately reduce the possibility of erosion problems. The following structural practices include but are not limited to hay bales, interceptor dikes, silt fences, or drainage swales.

1. Hay bales – During construction activities, hay bales can be used in conjunction with silt fences around spoil piles, near waterbodies, and at locations where erosion hazards are high. Bales must be double staked and imbedded 4 inches into the ground with soil tamped around the bales to secure them in place
2. Interceptor Dikes - An interceptor dike is a ridge and channel combination used to protect work areas from up-slope runoff and to divert sediment-laden water to well-vegetated areas or in the absence of well-vegetated areas, silt fences, hay bales or erosion control blankets will be used. The dike consists of compacted soil and will be spaced and placed to divert water flow onto well-vegetated areas. Temporary interceptor dikes will be constructed during initial grading of soil and permanent interceptor dikes will be installed as part of the final grading.
3. Silt Fences- A silt fence, also called a “filter fence,” is a temporary measure for sedimentation control. It usually consists of posts with filter fabric stretched across the posts and sometimes with a wire support fence if conditions require it. The lower edge of the fence is vertically trenched and covered by backfill. A silt fence is used in small drainage areas to detain sediment. These fences are most effective where there is overland flow (runoff that flows over the surface of the ground as a thin, even layer) or in minor swales or drainage ways. They prevent sediment from entering receiving waters. Silt fences will be placed at the outfall of interceptor dikes when native vegetation is insufficient to filter silt from runoff water. Silt fences will also be constructed at the base of slopes adjacent to roadways, wetlands, and waterbodies. Silt fences will be constructed in all cases where a disturbed area is close to a waterbody. Silt fences will also be constructed after the preliminary grading in natural swales and washes.
4. Drainage Swales – Drainage swales are constructed for the purpose of managing and containing the flow of excess surface water on the construction site. A qualified individual will be responsible for the maintenance, operation, and repair of the swales on the site. Maintenance, operation and repair shall mean the exercise of practices, such as mowing and erosion repair, which allow the swales to provide drainage, water storage, conveyance or other stormwater management capabilities as permitted by the MDEQ. Filling, excavation, construction of fences or otherwise obstructing the surface water flow in the swales will be prohibited.

D.3. STABILIZATION PRACTICES

Stabilization practices shall be designed to preserve existing vegetation (where possible) and revegetate disturbed areas as soon as practicable after construction. Stabilization practices that will be employed during construction include but are not limited to: permanent seeding, temporary seeding, mulching, vegetative buffer strips, protection/preservation of natural vegetation, and other appropriate measures.

Stabilization measures will be initiated as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.

- Where the initiation of stabilization measures by the 14th day after construction activities have temporarily or permanently ceased, is precluded by snow cover or frozen ground conditions, stabilization measures will be initiated as soon as practical.
- Where construction activities on a portion of the site has temporarily ceased, but earth disturbing activities will be resumed within 21 days, temporary stabilization measures will not be initiated for that portion of the site.
- In arid areas (areas with an average annual rainfall of 0 to 10 inches), semi-arid areas (areas with average annual rainfall of 10 to 20 inches), and areas experiencing droughts where the initiation of stabilization measures by the 14th day after construction activities have temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures will be initiated as soon as practical.

Revegetation will be performed on all disturbed areas to minimize erosion problems while natural vegetation is restored. If revegetation is required, seeding will most likely be the primary stabilization measure used. Where revegetation is required, it will be implemented on temporary and extraneous work locations (except parking lots and other similar industrial areas) which were disturbed during construction activities. Stabilization measures that could be used to prevent erosion include but are not limited to:

1. Temporary Seeding - The purpose of temporary seeding is to reduce erosion and sedimentation by stabilizing disturbed areas that will not be stabilized for long periods of time or where permanent plant growth is not necessary or appropriate. Temporary seeding will be used if seasonal weather conditions prevent permanent seeding and mulching from being feasible alternatives. This method utilizes fast-growing grasses whose root systems hold down the soils so that they are less apt to be carried offsite by storm water runoff or wind. Temporary seeding also reduces the problems associated with mud and dust from bare soil surfaces during construction.
2. Permanent Seeding - For permanent seeding and planting the following steps must be followed:

- **Seedbed Preparation:** it consists on preparing the area for seeding by tilling, use of lime and fertilizers. Seedbed preparation will depend on if the area of preparation is or is not accessible by farm machinery.
 - **Seeding:** there are two methods commonly used for seeding, a grass drill or a hydroseeder will be used whichever is more practical at the time of the seeding. No seeding by hand is allowed. The seeding mixture and fertilizer must be in accordance with the regional county soil service unless landowner requests otherwise.
 - **Mulching:** it will be use to aid in plant growth, as mentioned below.
3. **Vegetative Buffer Strips** - Buffer zones are vegetated strips of land used for temporary or permanent water quality benefits. Buffer zones are used to decrease the velocity of storm water runoff, which in turn helps to prevent soil erosion. The buffer zone can be an area of vegetation that is left undisturbed during construction, or it can be newly planted.
 4. **Protection/Preservation of Natural Vegetation** – Protection and preservation of vegetation on a site should be planned before any site disturbance begins. It requires good site management to minimize the impact of construction activities on existing vegetation. Clearly mark the trees to be preserved and protect them from ground disturbances around the base of the tree. Proper maintenance is important to ensure healthy vegetation that can control erosion. Different species, soil types, and climatic conditions will require different maintenance activities such as mowing, fertilizing, liming, irrigation, pruning, and weed and pest control.
 5. **Mulching** - Mulching is a temporary soil stabilization or erosion control practice where materials such as hay, woodchips, wood fibers, or straw are placed on the soil surface. In addition to stabilizing soils, mulching can reduce the speed of storm water runoff over an area. When used together with seeding or planting, mulching can aid in plant growth by holding the seeds, fertilizers, and topsoil in place, by helping to retain moisture, and by insulating against extreme temperatures. Hydroseeding and hydromulching may be a feasible alternative to be considered.
 6. **Upland Revegetation**- the purpose of this practice is to provide perennial vegetative cover in order to prevent soil erosion and control sedimentation. Vegetation shall be used as temporary and/or permanent erosion control measure. The combination of one or more of the following controls may be required or needed.

E. OTHER POLLUTION CONTROLS**E.1. CHEMICAL STORAGE AREA**

Materials will be stored and properly contained in a Chemical Storage Area, as applicable. A list of chemicals that could be reasonably expected to be brought or stored on site include, but are not limited to the following:

- Paints
 - Cleaning Solvents
 - Fiberglass Resin
 - Fusion Bon Epoxy
 - Sack Crete
 - Sandblasting Material
 - Coal Tar Epoxy
-
- On-site storage of construction materials or hazardous chemicals will be minimized to the extent possible. On-site storage will be staged and mobile according to the section of pipeline presuming active construction.
 - Tarps and other materials used for covering, drip pans and secondary containment structures other materials will be used for covering as necessary.
 - All materials and chemicals brought on-site will be stored in their original containers with original manufacturer's labels and managed with good housekeeping practices.
 - All containers of materials or chemicals must be maintained in good condition and kept in an upright position with lids closed except when materials are being removed for use.
 - Mixing substances will not be allowed except when following manufacturer's recommendations.
 - Containers will be disposed of only when they are considered "empty".
 - Manufacturer's recommendations for proper use and disposal of materials or chemicals must be followed.
 - The Contractor's Project Manager or Bayou Casotte Energy's Construction Manager will be responsible to perform routine inspections to ensure materials and chemicals are being used, stored and disposed of properly.
 - It is also the responsibility of the Construction Manager to ensure that Material Safety Data Sheets are on-site and made readily accessible to all associates who will be exposed to chemicals.
 - Disposal of surplus materials or chemicals must be performed according to manufacturer's recommendation and local, state and federal regulations.
 - It will be the responsibility of the paint contractor to remove and properly dispose of all paint waste (i.e. empty paint and solvent containers, etc.).

E.2. FUELING AND MAINTENANCE AREA

Materials will be stored and properly contained within the Fueling and Maintenance Area, as applicable. Materials that could be reasonably expected to be brought or stored on site include, but are not limited to:

- Motor oils;
 - transmission and brake fluids;
 - hydraulic fluids;
 - lubricating fluids;
 - antifreeze; and
 - portable fuel containers.
- All vehicles brought or maintained on-site will be on a regular preventative maintenance inspection schedule to reduce the risk for fuel and oil spills.
 - Drip pans must be used during vehicle fueling activities at the construction site to minimize the risk of tank overfills that could result in fuel spills.
 - Off-site vehicle tracking of sediments and generation of dust will be minimized.

E.3 WASTE STORAGE AREA

Materials will be stored and properly contained in a Waste Storage Area, as applicable. A list of products that could be reasonably expected to be brought or stored on site include, but are not limited to the following:

- Diesel
 - Gasoline
 - Hydraulic Oil
 - Lube Oil
 - Equipment Grease
- Generation of waste will be minimized to the extent possible. All wastes generated during construction activities will be managed in accordance with applicable laws and regulations. Construction waste will not be burned or buried on site.
 - Any hazardous waste that is generated during construction will be managed according to local, state and federal regulations.
 - Portable sanitary waste units will be made available at all construction sites. All sanitary waste from the portable units will be managed by a licensed sanitary waste management company, as required by the local government agencies.

F. APPROVED STATE, TRIBAL OR LOCAL PLANS

Not Applicable

G. MAINTENANCE

All erosion and sediment control measures and other protective measures identified in the SWPPP will be maintained in effective operating condition. If site inspections as

outlined below reveal that these control measures are operating ineffectively, maintenance will be performed before the next anticipated storm event, or as necessary to maintain the continued effectiveness of storm water controls. If maintenance prior to the next anticipated storm event is impracticable, maintenance will be scheduled and accomplished as soon as practical.

H. INSPECTIONS

Qualified personnel (provided by Bayou Casotte Energy or its contractors/subcontractors) will inspect the construction site as follows:

- Daily - Inspecting equipment fueling areas, construction materials, litter control, etc.
- General Site Control BMP Checklist (conducted at least once every Seven (7) calendar days for a minimum of four inspections per month);
- As often as necessary to ensure that appropriate erosion and sediment controls have been properly constructed and maintained and determine if additional or alternative control measures are required. It is strongly recommended by the MDEQ that coverage recipients perform a “walk through” inspection of the construction site before anticipated storm events.

Inspections must be performed as specified below to ensure that erosion and sediment controls measures are maintained and functioning as designed.

H.1. CONSTRUCTION INSPECTION RESPONSIBILITIES

Bayou Casotte Energy will be responsible for routinely inspecting erosion control measures as specified below; **or** within 24 hours of the end of a storm event. These inspections are performed to ensure that control measures are in proper working condition. All inspection forms are located within Attachment 2.

Inspection Form / Litter Control;

Complete *Daily Inspection / Litter Control Checklist*, to ensure BMPs are effective in preventing stormwater pollution and maintaining good housekeeping practices.

General Site / Post Storm Erosion Control;

Complete *General Site Control / Post-Storm Checklist*, to ensure all erosion control measures are inspected at least once every seven (7) days **or** subsequent to a significant storm event with 0.5 inches or greater rainfall. All control measures must be maintained in proper working condition and repaired as necessary. As presented in the checklist, the following will be reviewed during these inspections:

- Construction entrances will be inspected where vehicles enter or exit the site for evidence of off-site sediment tracking.
- All material storage areas exposed to precipitation will be inspected for evidence of or the potential for pollutants entering the storm drain system.
- Inspect storm water discharge locations or other accessible points to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected to the extent that such inspections are practicable.

- Inspect discharge locations for sediment or other pollutants that may have been discharged from the site.
- Identify the location of the BMPs that need to be maintained; or that potentially failed to operate as designed or proved inadequate for a particular location; and/or locations where additional BMPs might be needed that did not exist at the time of the inspection.

Prepare and submit inspection reports to Bayou Casotte Energy's Construction Manager at the completion of the inspection. Based on the results of the inspections, the SWPPP shall be modified as necessary to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within 7 calendar days following the inspection. Records will be maintained in the Construction Manager's office (or trailer).

If existing BMPs need to be modified or if additional BMPs are necessary, implementation will be completed before the next anticipated storm event. If implementation before the next anticipated storm event is impracticable, they will be implemented as soon as practicable.

H.2. POST CONSTRUCTION INSPECTION RESPONSIBILITIES

After the construction project has been completed, Bayou Casotte Energy will inspect the project site monthly for vegetation re-establishment, until the revegetation has achieved 70% of its native coverage. A Bayou Casotte Energy Post Construction Form must be completed by Bayou Casotte Energy's Construction Manager during each inspection. The form is located within Attachment 2 of this SWPPP.

H.3. INSPECTION DOCUMENTATION

The inspections described in Section H must be documented on copies of the MDEQ Monthly Inspection Report and Certification Form. The form is located within Attachment 2 of this SWPPP. The forms shall be retained within this SWPPP for at least three years from the date of construction.

H.4. RETENTION OF RECORDS

Copies of this SWPPP and all documentation required by the NPDES construction general permit must be retained for at least three (3) years from the date that the NOT is submitted to the MDEQ. This period may be extended by request of MDEQ at any time. The following records must be retained:

- A copy of this SWPPP;
- All reports and actions required by the general permit, including a copy of the construction site notice; and
- All data required to complete the Notice of Intent for coverage under the general permit. Once site modifications are complete, the site will become an operational LNG facility and NOIs will be filed for coverage of the site under the NPDES Multi-Sector General Permit for Stormwater Discharge Associated With Industrial Facilities and the NPDES General Permit for Concrete

Production Facilities. A separate SWPPP will be implemented to meet requirements of these permits.

I. NON-STORM WATER DISCHARGES

Non-storm water discharges will be minimal at the LNG Terminal. However, uncontaminated water will be used at various intervals to aid in dust suppression at the facility. Other potential sources may include uncontaminated wash down, line flushing water and irrigation runoff.

I.1. HYDROSTATIC TESTING

The LNG inner container will be hydrotested in accordance with API 620. The hydrotest water will be supplied only from an acceptable source, such as treated wastewater from the Refinery, or appropriately treated water from the Bayou Casotte. The necessary permits prior to withdrawal and discharge of water for hydrostatic testing will be obtained. Hydrostatic test water will be pumped into the tank at rates not exceeding the limitation set forth by API 620 and piped into the inner container through the manhole in the outer container concrete roof.

1. Residence time in the tank will be limited to approximately seven weeks from start of filling to completion of emptying.
2. Approximately 28 million gallons of water will be required to test up to the required test level. It is envisioned that test water will be transferred among tanks and ultimately discharged into the Bayou Casotte Channel.
3. Test water will be sampled and tested for suitability prior to use, in accordance with MDEQ requirements, procedures, and approvals. Prior to discharge, the water will be tested again, in accordance with MDEQ requirements, procedures, and approvals to determine whether treatment is required and to establish an appropriate treatment method.
4. Specific procedures will be developed for treating water prior to discharge (filtration, oil/water separators, clarifiers, activated carbon adsorption units, chemical injection, etc.)

J. PROPER OPERATIONS AND MAINTENANCE

Bayou Casotte Energy will at all times properly operate and maintain all facilities and treatment systems as well as control and related appurtenances which are installed or used to achieve compliance with the conditions of the permit and the requirements of storm water pollution prevention plans.

K. SPILL PREVENTION

Each Bayou Casotte Energy employee and contractor must maintain good housekeeping practices and take precautionary measures as appropriate to prevent spills. In addition, proper material management practices will be employed to reduce the risk of spills or other accidental exposure of construction materials or substances to stormwater runoff.

Should a spill occur, Bayou Casotte Energy on-site personnel must be notified immediately. Spills must be contained and cleared up as quickly as possible. In

addition, Bayou Casotte Energy will implement the Emergency Response Plan (ERP) that will be readily available at the facility.

K.1. GOOD HOUSEKEEPING

The following good housekeeping practices will be followed on site during the construction phase of this project:

- Store only enough materials on site as required to perform the job;
- All materials stored on site will be stored in a neat and orderly manner in appropriate containers, and protected from damage;
- All materials on site will be kept in their original containers with the original manufacturer's labels wherever possible. Materials transferred to other containers will be properly labeled;
- Containers on site will be completely emptied and lids removed before disposal;
- Chemicals or containers will not be burned or buried at the project site;
- Manufacturer's recommendations for proper use and disposal of the materials or substances and disposal of containers will be followed; and
- The site operator, or a qualified and responsible representative, will ensure proper use and disposal of construction materials or substances.

K.2 HAZARDOUS PRODUCTS

The following practices will be used to minimize the risks associated with hazardous products during the construction phase of this project:

- Hazardous products will be kept in their original containers unless the containers are not resealable;
- Original labels and Material Safety Data Sheets (MSDS) will be maintained on site;
- If surplus materials must be disposed of, the manufacturer's disposal recommendations will be used in coordination with federal, state, and local requirements regarding proper disposal. Waste material will not be poured into waterways, drains, septic tanks, or onto the ground. Materials will be recycled, reused, or returned to the manufacturer whenever possible.

K.3 PRODUCT SPECIFIC PRACTICES

Product specific practices to be used during the course of this project include:

- Petroleum Products – On site vehicles, vessels, equipment, and machinery will be monitored for leaks and will receive regular preventative maintenance to reduce the possibility of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled and protected from damage. All petroleum-based substances used on site will be used in accordance with manufacturer's recommendations.

Refueling and lubricating of construction equipment shall be restricted to upland areas at least 100 feet from the edge of any streams,

wetlands, ditches, and other waterbodies; 200 feet from private water supply wells; and 400 feet from public water supply wells, wherever possible.

- Paints and Solvents - All containers will be tightly sealed and stored when not in use. Surplus paint and solvent, as well as other similar materials, will be disposed of in accordance with manufacturer's recommendations and federal, state, and local requirements.

L. TRAINING

Any employee working at the project site has the potential to cause pollution of the stormwater. Therefore, all employees must receive annual training on this SWPPP. The dates and attendees must be documented per each training class. Copies of the training documentation will be maintained by Bayou Casotte Energy.

It shall be the responsibility of Bayou Casotte Energy, its Contractors and their employees to read, understand and comply with the requirements and commitments set forth in this Storm Water Pollution Prevention Plan.

M. TERMINATION OF PERMIT COVERAGE

Permittees wishing to terminate coverage under the NPDES general permit must submit the applicable Notice of Termination (NOT) to the MDEQ. Compliance with the permit is required until a NOT is submitted.

Per the MDEQ Permit No.MSR10, within 30 days of final stabilization (see Definition of Final Stabilization (1)) for a covered project, a completed Notice of Termination (NOT) of Coverage form shall be submitted to the Permit Board. Upon receiving the completed NOT, the MDEQ staff will inspect the site. If no sediment and erosion control problems are identified and adequate permanent controls are established the owner and operator will receive a termination letter. Coverage is not terminated until done so in writing. Failing to submit a NOT is a violation of permit conditions.

The coverage recipient must submit a NOT within 30 days after the following conditions are met:

- Final stabilization (see Definition of Final Stabilization (2)) has been achieved on all portions of the site for which the coverage recipient is responsible.
- Other owner(s) or operator(s) have assumed control (by completing a CNOI or MDEQ Registration Form) over all areas of the site that have not achieved final stabilization.

ATTACHMENT 1

Proposed Route Site Maps

The attached site maps will indicate the following:

- Location of receiving waters closest to project site.
- Location of roadway, railroad, waterbody, and wetland crossings.
- Major structural controls are not anticipated to be used for this project.
- Non-structural controls will consist of items discussed in Section D of this SWPPP. Given the mobile nature of these non-structural controls, they have not been included in the SWPPP site maps for this project.
- Stabilization practices are expected to occur on an as-needed basis along the length of the pipeline and therefore specific locations are not identified.

ATTACHMENT 2
NOTICE OF INTENT
And
NPDES PERMIT

ATTACHMENT 3

Inspection Forms

**ATTACHMENT 3
STORM WATER POLLUTION PREVENTION PLAN
BEST MANAGEMENT PRACTICES
DAILY INSPECTION FORM / LITTER CONTROL CHECKLIST**

To be performed daily.

Project Location : _____

Yes	No	Activity	Initials
		Are controls being implemented to prevent litter from being exposed to storm water and becoming a pollutant source for storm water discharge?	
		Are controls being implemented to prevent construction debris from being exposed to storm water and becoming a pollutant source for storm water discharge?	
		Are controls being implemented to prevent equipment fuel from being exposed to storm water and becoming a pollutant source for storm water discharge?	
		Are controls being implemented to prevent construction chemicals from being exposed to storm water and becoming a pollutant source for storm water discharge?	
		Are on-site storage of construction materials or hazardous chemicals being minimized to the extent possible?	
		Are tarps and other materials used for covering as necessary, i.e., drip pans and secondary containment structures?	
		Are all materials and chemicals brought on-site stored in their original containers?	
		Are all containers of materials or chemicals maintained in good condition and kept in an upright position with lids closed except when materials are being removed for use?	
		Is the mixing of substances only occurring per manufacturer's recommendations?	
		Are material and chemical containers disposed of properly when they are considered "empty"?	
		Are manufacturer's recommendations for proper use and disposal of materials or chemicals being followed?	
		Are materials and chemicals being used, stored and disposed of properly?	
		Are MSDS's on-site and made readily accessible to all associates who will be exposed to chemicals?	
		Are disposal of surplus materials or chemicals being performed according to manufacturer's recommendation and local, state and federal regulations?	
		Did the paint contractor remove and properly dispose of all empty paint and solvent cans generated during construction?	
		Are all vehicles brought or maintained on-site on a regular preventative maintenance inspection schedule to reduce the risk for fuel and oil spills?	
		Are drip pans used during vehicle fueling activities at the construction site to minimize the risk of tank overfills that could result in fuel spills?	

Date: _____

Time: _____

Performed By: _____

Maintenance Supervisor Approval: _____

**Casotte Landing Natural Gas
Import Terminal Project**

**Draft Storm Water Pollution
Prevention Plan**

**ATTACHMENT 3
STORM WATER POLLUTION PREVENTION PLAN
BEST MANAGEMENT PRACTICES
DAILY INSPECTION FORM / LITTER CONTROL CHECKLIST**

		Is the off-site vehicle tracking of sediments and generation of dust being minimized?	
--	--	---	--

Date: _____ Time: _____

Performed By: _____

Maintenance Supervisor Approval: _____

**ATTACHMENT 3
STORM WATER POLLUTION PREVENTION PLAN
BEST MANAGEMENT PRACTICES
GENERAL SITE CONTROL / POST-STORM CHECKLIST**

All erosion control measures must be inspected at least once every fourteen (14) calendar days and subsequent (within 24 hours) to any storm event with 0.5 inches or greater rainfall.

Project Location: _____

Date Completed	Initials	Activity
		Inspect the completed sections along the pipeline right-of-way for erosion problems (i.e. bare spots and washouts).
		Inspect construction entrances where vehicles enter or exit the site for evidence of off-site sediment tracking.
		Inspect all material storage areas exposed to precipitation for evidence of or the potential for, pollutants entering the storm drain system.
		Inspect storm water discharge locations or points where accessible to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.
		Inspect discharge locations for sediment or other pollutants that may have been discharged from the site.
		Identify location of the Best Management Practices (BMPs) that need to be maintained; or that potentially failed to operate as designed or proved inadequate for a particular location; and/or locations where additional BMPs might be needed that did not exist at the time of the inspection.

Are changes to the SWPPP warranted? Yes No

If yes, please notify the Project Engineer and the OID Contact.

Remarks:

Date: _____ Time: _____

Performed By: _____

Maintenance Supervisor Approval: _____

**ATTACHMENT 3
STORM WATER POLLUTION PREVENTION PLAN
BEST MANAGEMENT PRACTICES
GENERAL SITE CONTROL / POST-STORM CHECKLIST**

Please make sure all problems identified are corrected before next anticipated storm event or inspection, which ever is sooner.

Date: _____ Time: _____

Performed By: _____

Maintenance Supervisor Approval: _____

***Casotte Landing Natural Gas
Import Terminal Project***

***Draft Storm Water Pollution
Prevention Plan***

UPON FINALIZATION, INSERT MDEQ *INSPECTION AND CERTIFICATION FORM* HERE

UPON FINALIZATION, INSERT MDEQ *INSPECTION SUSPENSION FORM* HERE

