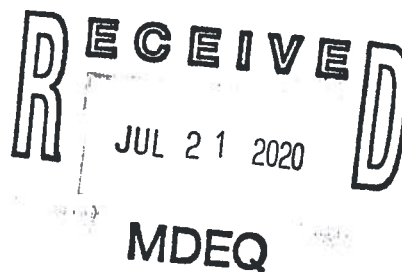




MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY



**MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY (MDEQ)
Large Construction Storm Water General Permit
NPDES Permit MSR10**

LARGE CONSTRUCTION FORMS PACKAGE

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These standard forms are used to apply for permit coverage under the Large Construction Storm Water General Permit and for submittals and record keeping required by permit conditions after coverage has been granted. The forms are on our website at www.deq.state.ms.us/MDEQ.nsf/page/epd_epdgeneral. Required information can be completed on screen, printed and signed.

Revised: 12/06/16



MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

LARGE CONSTRUCTION NOTICE OF INTENT (LCNOI) FOR COVERAGE UNDER THE LARGE CONSTRUCTION STORM WATER GENERAL NPDES PERMIT

INSTRUCTIONS

The Large Construction Notice of Intent (LCNOI) is for coverage under the Large Construction General Permit for land disturbing activities of five (5) acres or greater; or for land disturbing activities, which are part of a larger common plan of development or sale that are initially less than five (5) acres but will ultimately disturb five (5) or more acres. Applicant must be the owner or operator. For construction activities, the operator is typically the prime contractor. The owner(s) of the property and the prime contractor associated with regulated construction activity on the property have joint and severable responsibility for compliance with the Large Construction Storm Water General Permit MSR10.

If the company seeking coverage is a corporation, a limited liability company, a partnership, or a business trust, attach proof of its registration with the Mississippi Secretary of State and/or its Certificate of Good Standing. This registration or Certificate of Good Standing must be dated within twelve (12) months of the date of the submittal of this coverage form. Coverage will be issued in the company name as it is registered with the Mississippi Secretary of State.

Completed LCNOIs should be filed at least thirty (30) days prior to the commencement of construction. Discharge of storm water from large construction activities without written notification of coverage is a violation of state law.

Submittals with this LCNOI must include:

- A site-specific Storm Water Pollution Prevention Plan (SWPPP) developed in accordance with ACT5 of the General Permit
- A detailed site-specific scaled drawing showing the property layout and the features outlined in ACT5 of the General Permit
- A United States Geological Survey (USGS) quadrangle map or photocopy, extending at least one-half mile beyond the facility property boundaries with the site location and outfalls outlined or highlighted. The name of the quadrangle map must be shown on all copies. Quadrangle maps can be obtained from the MDEQ, Office of Geology at 601-961-5523.

Additional submittals may include the following, if applicable:

- Appropriate Section 404 documentation from U.S. Army Corps of Engineers
- Appropriate documentation concerning future disposal of sanitary sewage and sewage collection system construction
- Appropriate documentation from the MDEQ Office of Land & Water concerning dam construction and low flow requirements
- Approval from County Utility Authority in Hancock, Harrison, Jackson, Pearl River and Stone Counties

ALL QUESTIONS MUST BE ANSWERED (Answer "NA" if the question is not applicable)

MSR10

(NUMBER TO BE ASSIGNED BY STATE)

APPLICANT IS THE: ☒ OWNER ☐ PRIME CONTRACTOR**OWNER CONTACT INFORMATION**OWNER CONTACT PERSON: Bill AustinOWNER COMPANY LEGAL NAME: DeSoto County Regional Utility AuthorityOWNER STREET OR P.O. BOX: 365 Loshier Street, Ste 310OWNER CITY: Hernando STATE: MS ZIP: 38632OWNER PHONE #: (662) 298-2295 OWNER EMAIL: billaustin@digitdesoto.com**PRIME CONTRACTOR CONTACT INFORMATION**

PRIME CONTRACTOR CONTACT PERSON: _____

PRIME CONTRACTOR COMPANY LEGAL NAME: _____

PRIME CONTRACTOR STREET OR P.O. BOX: _____

PRIME CONTRACTOR CITY: _____ STATE: _____ ZIP: _____

PRIME CONTRACTOR PHONE #: (____) _____ PRIME CONTRACTOR EMAIL: _____

FACILITY SITE INFORMATIONFACILITY SITE NAME: Highway 305 Pump Station and Force Main

FACILITY SITE ADDRESS (If the physical address is not available, please indicate the nearest named road. For linear projects indicate the beginning of the project and identify all counties the project traverses.)

STREET: along Vaiden Road then along Highway 305CITY: Hernando STATE: MS COUNTY: DeSoto ZIP: 38632FACILITY SITE TRIBAL LAND ID (N/A If not applicable): n/aLATITUDE: 34 degrees 50 minutes 26.79 seconds LONGITUDE: 89 degrees 49 minutes 35.03 secondsLAT & LONG DATA SOURCE (GPS (Please GPS Project Entrance/Start Point) or Map Interpolation): Google EarthTOTAL ACREAGE THAT WILL BE DISTURBED ¹: 14.7

IS THIS PART OF A LARGER COMMON PLAN OF DEVELOPMENT?

YES ☐NO ☒

IF YES, NAME OF LARGER COMMON PLAN OF DEVELOPMENT: _____

AND PERMIT COVERAGE NUMBER: MSR10 _____

ESTIMATED CONSTRUCTION PROJECT START DATE:

08-01-2020

YYYY-MM-DD

ESTIMATED CONSTRUCTION PROJECT END DATE:

07-15-2021

YYYY-MM-DD

DESCRIPTION OF CONSTRUCTION ACTIVITY: Installation of sewer force mainPROPOSED DESCRIPTION OF PROPERTY USE AFTER CONSTRUCTION HAS BEEN COMPLETED:
returned to its original condition

SIC Code _____ NAICS Code _____

NEAREST NAMED RECEIVING STREAM: Coldwater River and Camp Creek Canal

IS RECEIVING STREAM ON MISSISSIPPI'S 303(d) LIST OF IMPAIRED WATER BODIES? (The 303(d) list of impaired waters and TMDL stream segments may be found on MDEQ's web site: http://www.deq.state.ms.us/MDEQ.nsf/page/TWB_Total_Maximum_Daily_Load_Section) **YES** ☐ **NO** ☒

HAS A TMDL BEEN ESTABLISHED FOR THE RECEIVING STREAM SEGMENT? **YES** ☐ **NO** ☒

ARE THERE RECREATIONAL STREAMS, PRIVATE/PUBLIC PONDS OR LAKES WITHIN ½ MILE DOWNSTREAM OF PROJECT BOUNDARY THAT MAY BE IMPACTED BY THE CONSTRUCTION ACTIVITY? **YES** ☐ **NO** ☒

EXISTING DATA DESCRIBING THE SOIL (for linear projects please describe in SWPPP):
see SWPPP

WILL FLOCCULANTS BE USED TO TREAT TURBIDITY IN STORM WATER? **YES** ☐ **NO** ☒

IF YES, INDICATE THE TYPE OF FLOCCULANT. ☐ **ANIONIC POLYACRYLAMIDE (PAM)**
☐ **OTHER** _____

IF YES, DOES THE SWPPP DESCRIBE THE METHOD OF INTRODUCTION, THE LOCATION OF INTRODUCTION AND THE LOCATION OF WHERE FLOCCULATED MATERIAL WILL SETTLE? **YES** ☐ **NO** ☐

¹Acreage for subdivision development includes areas disturbed by construction of roads, utilities and drainage. Additionally, a housesite of at least 10,000 ft² per lot (entire lot, if smaller) shall be included in calculating acreage disturbed.

DOCUMENTATION OF COMPLIANCE WITH OTHER REGULATIONS/REQUIREMENTS
COVERAGE UNDER THIS PERMIT WILL NOT BE GRANTED UNTIL ALL OTHER REQUIRED
MDEQ PERMITS AND APPROVALS ARE SATISFACTORILY ADDRESSED

IS LCNOI FOR A FACILITY THAT WILL REQUIRE OTHER PERMITS?

YES ☒

NO ☐

IF YES, CHECK ALL THAT APPLY: ☐ AIR ☐ HAZARDOUS WASTE ☐ PRETREATMENT

☐ WATER STATE OPERATING

☐ INDIVIDUAL NPDES

☒ OTHER: USACE 404

IS THE PROJECT REROUTING, FILLING OR CROSSING A WATER CONVEYANCE OF ANY KIND? (If yes, contact the U.S. Army Corps of Engineers' Regulatory Branch for permitting requirements.) YES ☒ NO ☐

IF THE PROJECT REQUIRES A CORPS OF ENGINEER SECTION 404 PERMIT, PROVIDE APPROPRIATE DOCUMENTATION THAT:

- The project has been approved by individual permit, or
- The work will be covered by a nationwide permit and NO NOTIFICATION to the Corps is required, or
- The work will be covered by a nationwide or general permit and NOTIFICATION to the Corps is required

IS A LAKE REQUIRING THE CONSTRUCTION OF A DAM BEING PROPOSED?

YES ☐

NO ☒

(If yes, provide appropriate approval documentation from MDEQ Office of Land and Water, Dam Safety.)


IF THE PROJECT IS A SUBDIVISION OR A COMMERCIAL DEVELOPMENT, HOW WILL SANITARY SEWAGE BE DISPOSED? Check one of the following and attach the pertinent documents.

- ☐ Existing Municipal or Commercial System. Please attach plans and specifications for the collection system and the associated "Information Regarding Proposed Wastewater Projects" form or approval from County Utility Authority in Hancock, Harrison, Jackson, Pearl River and Stone Counties. If the plans and specifications can not be provided at the time of LCNOI submittal, MDEQ will accept written acknowledgement from official(s) responsible for wastewater collection and treatment that the flows generated from the proposed project can and will be transported and treated properly. The letter must include the estimated flow.
- ☐ Collection and Treatment System will be Constructed. Please attach a copy of the cover of the NPDES discharge permit from MDEQ or indicate the date the application was submitted to MDEQ (Date: _____.)
- ☐ Individual Onsite Wastewater Disposal Systems for Subdivisions Less than 35 Lots. Please attach a copy of the Letter of General Acceptance from the Mississippi State Department of Health or certification from a registered professional engineer that the platted lots should support individual onsite wastewater disposal systems.
- ☐ Individual Onsite Wastewater Disposal Systems for Subdivisions Greater than 35 Lots. A determination of the feasibility of installing a central sewage collection and treatment system must be made by MDEQ. A copy of the response from MDEQ concerning the feasibility study must be attached. If a central collection and wastewater system is not feasible, then please attach a copy of the Letter of General Acceptance from the State Department of Health or certification from a registered professional engineer that the platted lots should support individual onsite wastewater disposal systems.

INDICATE ANY LOCAL STORM WATER ORDINANCE WITH WHICH THE PROJECT MUST COMPLY:

DeSoto County Stormwater Ordinance

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.


Signature of Applicant¹ (owner or prime contractor)
(B-11)

Bill Austin
Printed Name¹

7/15/2020
Date Signed

Executive Director, DCRUA
Title

¹This application shall be signed as follows:

- For a corporation, by a responsible corporate officer.
- For a partnership, by a general partner.
- For a sole proprietorship, by the proprietor.

For a municipal, state or other public facility, by principal executive officer, mayor, or ranking elected official

Please submit the LCNOI form to:

Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225

PRIME CONTRACTOR CERTIFICATION

LARGE CONSTRUCTION GENERAL PERMIT

Coverage No. MSR10 _____ County _____
(Fill in your Certificate of Coverage Number and County)



By completing and submitting this form to MDEQ, the prime contractor is certifying that (1) they have operational control over the erosion and sediment control specifications (including the ability to make modifications to such specifications) or (2) they have day-to-day operational control of those activities at the site necessary to ensure compliance with the SWPPP and applicable permit conditions.

The owner(s) of the property and the prime contractor associated with regulated construction activity on the property have joint and severable responsibility for compliance with the permit. Notwithstanding any permit condition to the contrary, the coverage recipient and any person who causes pollution of waters of the state or places waste in a location where they are likely to cause pollution of any waters of the state shall remain responsible under applicable federal and state laws and regulations and applicable permits.

PRIME CONTRACTOR INFORMATION

PRIME CONTRACTOR CONTACT PERSON: TBD PHONE NUMBER: () _____

PRIME CONTRACTOR COMPANY: _____

PRIME CONTRACTOR STREET (P.O. BOX): _____

PRIME CONTRACTOR CITY: _____ STATE: _____ ZIP: _____

E-MAIL ADDRESS: _____

OWNER INFORMATION

OWNER CONTACT PERSON: Bill Austin, Executive Director PHONE NUMBER: (662) 298-2295

OWNER COMPANY NAME: DeSoto County Regional Utility Authority

PROJECT INFORMATION

PROJECT NAME: Highway 305 Pump Station and Force Main

DESCRIPTION OF CONSTRUCTION ACTIVITY: Installation of a sewer force main along Highway 305 (from the proposed pump station), then along Vaiden Road, connecting into the existing force main at Camp Creek Canal

PHYSICAL SITE ADDRESS (If the physical address is not available indicate the nearest named road. For linear projects, indicate the beginning of the project and identify all counties the project traverses.)

STREET: Located in DeSoto County. Middle of project: 34.84 deg N, 89.83 deg W

CITY: Hernando COUNTY: DeSoto

I certify that I am the prime contractor for this project and will comply with all the requirements in the above referenced general NPDES permit. I further 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.

Prime Contractor Signature¹ _____

Date Signed _____

Printed Name¹ _____

Title _____

¹This application shall be signed as follows:

- For a corporation, by a responsible corporate officer.
- For a partnership, by a general partner.
- For a sole proprietorship, by the proprietor.
- For a municipal, state or other public facility, by principal executive officer, mayor, or ranking elected official.

This Prime Contractors Certification form shall be submitted to:

Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225

Keep a Copy at the Construction Site and Also Submit this Page to:
Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225-2261

Registration Form for Residential Lot Coverage under Mississippi's Large Construction Storm Water General Permit INSTRUCTIONS



MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

Coverage recipients for residential subdivision construction that do not retain responsibility for permit compliance for individual lots are to furnish this Registration to buyers of individual lots at the time of purchase. In addition, the attached Requirements for Individual Lots in Residential Subdivisions, the Site Inspection and Certification Form and the Large Construction Storm Water General Permit shall also be given to buyers of individual lots at the time of purchase. This form is providing notification to buyers of lots in residential developments, that being part of a "larger common plan of development or sale," coverage is required under Mississippi's Large Construction Storm Water General Permit. To comply with the permit, **the Registration Form must be submitted to MDEQ** at the address listed above and a Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented to reduce pollutants in storm water discharges during construction activity. **The SWPPP is not required to be submitted to MDEQ.** A copy of the SWPPP and Registration Form must be kept at the construction site or locally available (i.e., able to be produced within an hour of being requested by a state or local inspector). See the following attachments for information on SWPPP development. In addition, **a copy of the completed Registration Form(s) must be retained by the developer and submitted to the MDEQ when requesting termination of permit coverage.** If the buyer or homebuilder sells the lot before a house is built, they must provide this form to the new owner. All questions must be answered. Answer "NA" if the question is not applicable. For further information, contact MDEQ at 601/961-5171 or access our website address: www.deq.state.ms.us/MDEQ.nsf/page/epd_epdgeneral.

ORIGINAL COVERAGE RECIPIENT NAME:

COMPANY NAME:

STREET OR P.O. BOX:

CITY: STATE: ZIP:

PHONE # (INCLUDE AREA CODE):

BUYER / HOMEBUILDER:

COMPANY NAME (IF APPROPRIATE):

STREET OR P.O. BOX:

CITY: STATE: ZIP:

BUYER PHONE # (INCLUDE AREA CODE):

RESIDENTIAL SUBDIVISION NAME: _____

LARGE CONSTRUCTION STORM WATER PERMIT COVERAGE NUMBER: **MSR10:** _____ 298-2295

LOT NUMBER(s) (attach an additional sheet if necessary): _____ LOT SIZE(s): _____

PHYSICAL SITE ADDRESS (IF NOT AVAILABLE INDICATE THE NEAREST NAMED ROAD):

STREET: _____

CITY: _____ COUNTY: _____ ZIP: _____

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 persons 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. As a buyer / homebuilder, I further certify that I have read and understand the terms and conditions of Mississippi's Large Construction Storm Water General Permit and that I am responsible for installing and maintaining the appropriate pollution control measures for the purchased lot(s) identified.

Original Coverage Recipient Signature¹ _____

14.7

Date Signed _____

Printed Name _____

Title _____

Buyer / Homebuilder Signature¹ _____

Date Signed _____

Printed Name _____

Title _____

¹This application shall be signed according to ACT11, T-7 of the Large Construction General Permit.

Revised: 12/12/16

REQUIREMENTS FOR LOTS IN RESIDENTIAL SUBDIVISION WHICH ARE COVERED BY THE LARGE CONSTRUCTION STORM WATER GENERAL PERMIT

As a homebuilder on a lot that is part of a regulated subdivision, you are also regulated under the State's storm water regulations and are required to take steps to keep soil and sediment from leaving the lot. When rain falls on exposed soil it can wash away valuable topsoil. It also carries sediment, nutrients and other pollutants into streets, gutters and ditches, where it then travels to lakes, rivers, streams or wetlands. Polluted runoff can cause excessive growth of aquatic weeds and algae and reduce recreational opportunities such as swimming and fishing. Sediment laden runoff can also destroy fish habitat reducing productive fishing opportunities. In addition, sediment-laden runoff can also clog pipes, ditches, streams and basins resulting in increased flooding and maintenance cost. Therefore, the homebuilder is required to minimize off-site damage from soil erosion, sediment leaving the construction site, and poor "housekeeping" practices. This requirement must be accomplished by developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). Some examples of individual lot SWPPPs are attached for your convenience. Sketch the controls on a copy of your site plan. Narrative notes on the site plan may also be used in addition to the erosion control symbols.

In developing and implementing the SWPPP, controls must be used from each control group (vegetative, structural, housekeeping) to prevent erosion and sediment and other pollutants from leaving the site. Commonly used controls include:

Vegetative Controls

Temporary vegetation includes annual grasses that sprout quickly such as annual rye, browntop millet, oats, and winter wheat. These grow quickly with little care and can protect the soil from rainfall and act as a filter. They will not provide permanent cover. Permanent cover must be established as indicated below. When a disturbed area will be left undisturbed for fourteen (14) days or more, the appropriate temporary or permanent vegetative practices shall be implemented immediately.

Mulching is the placement of hay grass, woodchips, straw, or synthetic material on the soil to provide temporary cover to protect the soil from rain. Mulching may be the only option during the winter when seeding or sodding is not possible. Mulch must stay in place to be effective. Netting, stakes or chemical binders are used to anchor some types of mulch. Be sure to reinstall washed-out mulch and anchor if necessary until permanent cover is established.

Permanent stabilization is the establishment of a permanent vegetative cover on disturbed areas using either sod, perennial seed, trees or shrubs. When a disturbed area will be left undisturbed for fourteen (14) days or more, the appropriate temporary or permanent vegetative practices shall be implemented immediately. Silt fences, and other temporary measures must be removed following permanent stabilization.

Vegetative buffer zones are undisturbed or planted vegetated areas that are between construction activities and water bodies.

Structural Controls

Silt fences are temporary sediment barriers made of filter fabric buried at the bottom, stretched, and supported by stakes. The silt fence slows runoff and allows it to puddle or pond, so soil and sediment can settle out before leaving the site. The bottom eight to twelve inches of fence must either be sliced in or buried in a trench about four to six inches deep by four to six inches wide. **Silt fences that are not buried are improperly installed. They have no useful function, are a waste of money, and may result in enforcement action.** Stakes must be on the downstream side of the fence and spaced about 3 feet apart. Silt fence must not be installed across streams, ditches, waterways, or other concentrated flow areas. Place fences on the contour or perpendicular to the slope of the hill so that water and sediment will pond behind the fence. **Turn ends uphill** to prevent water going around the end. Install on the downslope, downhill, downstream, or low side of your lot. Keep the fence/barrier in place until grass is established.

Slope drains are piping or lined channels that carry storm water downslope without erosion. A good example would be a downspout extender. Extenders may be used to protect temporarily stabilized areas from roof runoff. Extenders can direct water from roof gutters to paved or grassed areas. Remove extenders following permanent stabilization.

Construction entrance/exits are stone stabilized site entrances which reduce sediment tracked onto public roads. Apply gravel or crushed rock to the driveway area and restrict traffic to this one route. Use 3 to 6 inch gravel over a geotextile fabric. At the end of each day sweep or scrape up any soil tracked onto the street. Limit "standard" vehicle access (including workers' vehicles) to only streets and roads, keep vehicles off of future yard areas; limit tracking of mud onto streets by requiring any required vehicles to use designated access drives. Streets are conduits for storm water, it is important to keep mud and sediment off the streets.

Stockpiles of sand or soil should be covered with plastic or tarps at the end of each workday, or surrounded with silt fence or haybales. Do not locate a stockpile near a street, storm drain inlet, or ditch.

Erosion control blankets or mats are machine-produced mats of straw or other fibers held together with netting that provide temporary or permanent stabilization in critical areas, such as slopes or channels, so that vegetation may be established.

Storm Drain Inlets on the lot must be protected by surrounding or covering with a filter material until final stabilization has been achieved.

Additional Controls: The above controls are the more common practices used at small construction sites. There are a number of other controls, techniques and manufactured product available. A few examples include hydro seeding, diversion berms, silt dikes and fiber logs. Even something as simple as a tarp or plastic may provide temporary cover for small exposed areas. You may wish to contact an erosion and sediment control specialist, local building official, or MDEQ for further information. In addition, MDEQ has several guidance manuals that may be of assistance and the internet has abundant guidance on construction BMPs.

Housekeeping Controls: Pollutants that may enter storm water from construction sites because of poor housekeeping include oils, grease, paints, gasoline, solvents, litter, debris, and sanitary waste. Good housekeeping practices include:

- Frequent cleaning of trash and debris, providing waste receptacles at convenient locations and providing regular collection of waste;
- Directing concrete trucks to the subdivision's designated wash-off area(s) or back to the Ready-Mix facility;
- Providing protected storage areas for chemicals, paints, solvents, fertilizers, and other potentially toxic materials; and
- Providing adequately maintained sanitary facilities.

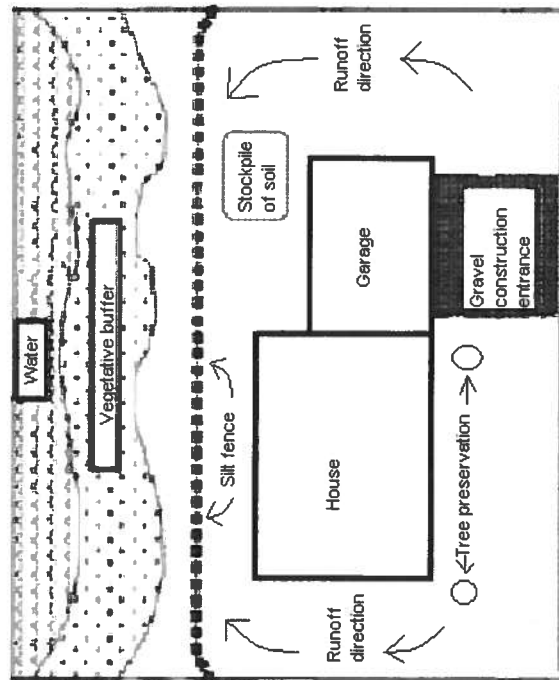
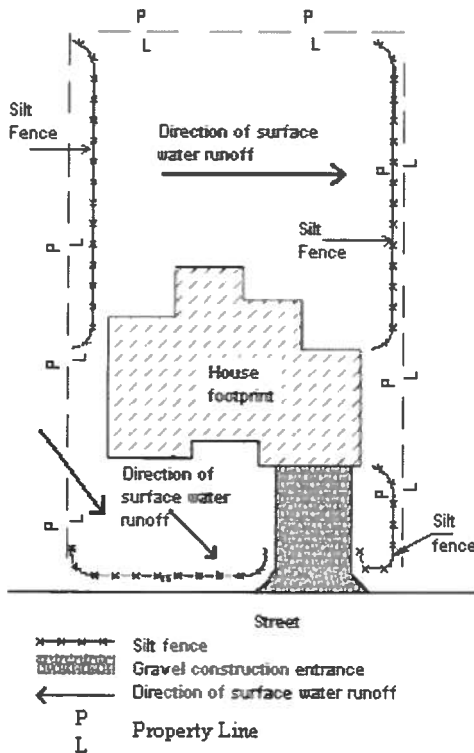
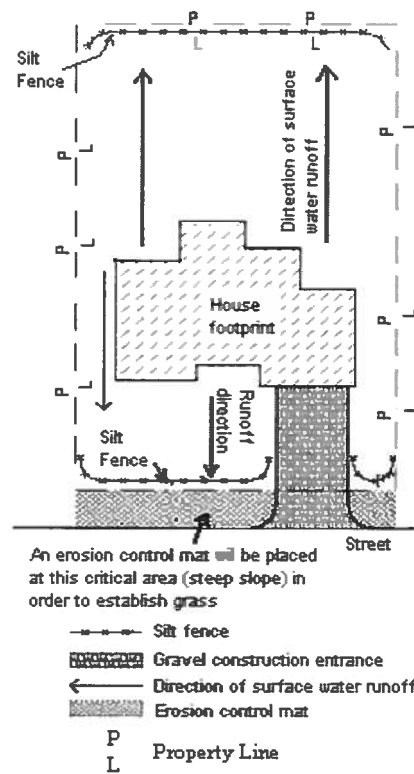
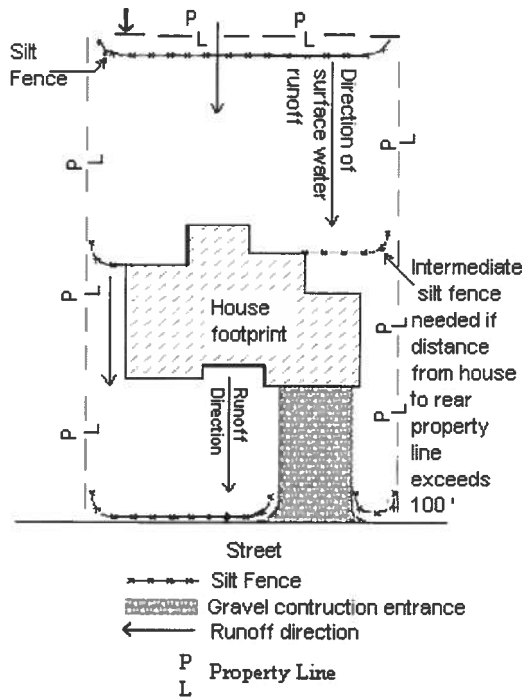
In addition, you should be aware that State air regulations prohibit the open burning of residential solid waste.

Inspection Requirements. Homebuilders shall inspect all erosion controls as often as is necessary, but no less than weekly, to ensure that appropriate erosion and sediment controls have been properly constructed and maintained to prevent erosion and sediment from leaving the site and determine if additional or alternative control measures are required. The inspection results shall be recorded on the Site Inspection and Certification Form contained in the Large Construction Forms Package. MDEQ strongly recommends that homebuilders perform "walk through" inspections daily. It is a responsibility of the homebuilder to install additional and/or alternative erosion and sediment controls when existing controls prove to be ineffective in preventing sediment from leaving the site.

Retention of Records. All records, reports, forms and information resulting from activities required by this permit shall be retained for a period of at least three years from the date of the document origin.

Duty to Comply. Lot owners must comply with the applicable permit conditions. See Activities 3, 5, 6, 7, 10 and 11 in the Large Construction Storm Water General Permit for applicable conditions. Any noncompliance with the applicable permit conditions and aforementioned conditions including sediment leaving the lot constitutes a violation of the Mississippi Water Pollution Control Law and is grounds for enforcement action. It shall not be an acceptable defense that controls were not installed because subsequent activities would require their replacement or cause their destruction.

EXAMPLE INDIVIDUAL LOT EROSION AND SEDIMENT CONTROL PLANS



All disturbed areas will be temporarily seeded with ryegrass. After final grade has been reached, all disturbed areas will be sodded with bermuda grass.

Keep a Copy Available at the Permitted Facility or Locally Available
Submit the Inspection Reports Only if Requested by the Mississippi Department of Environmental Quality (MDEQ)

**LARGE CONSTRUCTION GENERAL PERMIT
SITE INSPECTION AND CERTIFICATION FORM
COVERAGE NUMBER (MSR10 _ _ _ _)**



INSTRUCTIONS

Results of construction storm water inspections required by ACT6 of this permit shall be recorded on this report form and kept with the Storm Water Pollution Prevention Plan (SWPPP) in accordance with the inspection documentation provisions of ACT9 of the this permit. Inspections shall be performed at least weekly for a minimum of four inspections per month. The coverage number must be listed at the top of all Inspection and Certification Forms.

COVERAGE RECIPIENT INFORMATION

OWNER/PRIME CONTRATOR NAME: _____
PROJECT NAME: _____
PROJECT STREET ADDRESS: _____
PROJECT CITY: _____ PROJECT COUNTY: _____
OWNER/PRIME CONTRACTOR MAILING ADDRESS: _____
MAILING CITY: _____ STATE: _____ ZIP: _____
CONTACT PERSON: _____ CONTACT PHONE NUMBER: (____) _____
EMAIL ADDRESS: _____

INSPECTION DOCUMENTATION

DATE (mo/day/yr)	TIME (hr:min AM/PM)	ANY DEFICIENCIES? (CHECK IF YES)	INSPECTOR(S)
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	
		<input type="checkbox"/>	

Deficiencies Noted During any Inspection (give date(s); attach additional sheets if necessary): _____

Corrective Action Taken or Planned (give date(s); attach additional sheets if necessary): _____

Based upon this inspection, which I or personnel under my direct supervision conducted, I certify that all erosion and sediment controls have been implemented and maintained, except for those deficiencies noted above, in accordance with the Storm Water Pollution Prevention Plan (SWPPP) and sound engineering practices as required by the above referenced permit. I further certify that the LCNOI and SWPPP information is up to date.

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 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 fines and imprisonment for knowing violations.

Authorized Signature _____

Printed Name _____

Date _____

Executive Director, DCRUA

Title _____

**MAJOR MODIFICATION FORM
FOR LARGE CONSTRUCTION GENERAL PERMIT**
Coverage No. MSR10 _____ County _____



MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

INSTRUCTIONS

Coverage recipients shall notify the Mississippi Department of Environmental Quality at least 30 days in advance of the following activities (check all that apply). This form should be submitted with a modified Storm Water Pollution Prevention Plan (SWPPP), updated USGS topographic map, Corps of Engineers Section 404 documentation and wastewater collection and treatment information, as appropriate.

- ☐ SWPPP details have been developed and are ready for MDEQ review for subsequent phases of an existing, covered project.
- ☐ "Footprint" identified in the original LCNOI is proposed to be enlarged.

This form must be signed by the current coverage recipient under Mississippi's Large Construction General Permit. A different developer of new phases of existing subdivisions must apply for separate permit coverage through the submittal of a new complete LCNOI package. Coverage recipients are authorized to discharge storm water associated with proposed expansions of existing subdivisions or subsequent phases, under the conditions of the General Permit, only upon receipt of written notification of approval by MDEQ. All other modifications, such as changes of erosion and sediment controls used, must be in accordance with ACT6, S-1 (6) and S-2 (7) of the General Permit.

ALL INFORMATION MUST BE COMPLETED (indicate "N/A" where not applicable)

COVERAGE RECIPIENT INFORMATION

COVERAGE RECIPIENT CONTACT NAME: _____ TEL # (____) _____

COMPANY NAME: _____

STREET OR P.O. BOX: _____

CITY: _____ STATE: _____ ZIP: _____ E-MAIL: _____

PROJECT INFORMATION

PROJECT NAME: _____

CITY: _____

ADDITIONAL ACREAGE TO BE DISTURBED: _____ TOTAL PROJECT ACREAGE: _____

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.

Signature (must be signed by coverage recipient)

Date

Printed Name

Title

Please submit this form to:

Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225

Environmental Permits for Industrial Facilities

Request for Transfer of Permit, General Permit Coverage and/or Name Change

Instructions: For Ownership Change-Complete all Items on Page 1 (except Item VIII) and Page 2 (reverse side).

For Name Change Only-Complete Items I, II, V, VI, VII, VIII, and Page 2 (reverse side).

Note-This form should be submitted to MDEQ when a transferal date is finalized but prior to the actual transfer.

Item I. Facility Name: _____ Location: (Do Not Use P.O. Box) Street: _____ City: _____ State: <u>MS</u> Zip: _____ County: _____ Telephone: (____) _____	Item II. Responsible official after transfer or name change: Name: _____ Title: _____ Mailing Address: Street/P.O. Box: _____ City: _____ State: _____ Zip: _____ Telephone (____) _____								
Item III. Previous Permittee ¹ : _____ Mailing Address: Street/P.O. Box: _____ City: _____ State: _____ Zip: _____ Telephone: (____) _____	Item IV. New Permittee ¹ : _____ Mailing Address: Street/P.O. Box: _____ City: _____ State: _____ Zip: _____ Telephone: (____) _____								
Item V. Industrial Activity SIC Code: _____ Brief Description: _____	Item VI. Will Facility Operations Change? Yes _____ No _____ If yes, the appropriate applications and permits may require modification prior to change.								
Item VII. Will Facility Name Change? Yes _____ No _____ If Yes, Provide New Name for Permit Coverage. New Name: _____	Item VIII. Signature for Name Change Print Name: _____ Authorized Signature ² : _____ Title: _____ Date: _____								
Item IX. We the undersigned request transfer of permit(s) and/or permit coverage(s) listed on the backside of this form. From: _____ To: _____ Acquisition Date: _____ <p>By signature below, the recipient certifies that: 1) they are aware of the requirements of the permit(s), 2) the applicant can demonstrate to the Permit Board it has the financial resources and operational expertise and 3) agrees to accept responsibility and liability for the permit(s) listed on the back of this document. By signature below, the previous permittee is requesting that the permit(s) and/or permit coverage(s) be transferred to the recipient. The transfer of the permit(s) or permit coverage(s) will be by written notification from the Office of Pollution Control (OPC). The OPC may require submittal of information regarding financial capability and past compliance history of the recipient.</p> <table style="width: 100%;"> <tr> <td style="width: 50%;"> _____ Print New Permittee¹ Name </td> <td style="width: 50%;"> _____ Print Previous Permittee¹ Name </td> </tr> <tr> <td> _____ New Authorized Signature² </td> <td> _____ Previous Authorized Signature² </td> </tr> <tr> <td> _____ Title </td> <td> _____ Title </td> </tr> <tr> <td> _____ Date </td> <td> _____ Date </td> </tr> </table> <p>¹A Permittee is a company or individual that has been issued an individual permit or coverage under a general permit. ²Authorized Signature must be owner or in the case of a corporation, a corporate officer as defined in Regulations 11 Miss. Admin. Code Pt. 2, Ch. 2 and 11 Miss. Admin. Code Pt. 6, Ch. 1.</p>		_____ Print New Permittee ¹ Name	_____ Print Previous Permittee ¹ Name	_____ New Authorized Signature ²	_____ Previous Authorized Signature ²	_____ Title	_____ Title	_____ Date	_____ Date
_____ Print New Permittee ¹ Name	_____ Print Previous Permittee ¹ Name								
_____ New Authorized Signature ²	_____ Previous Authorized Signature ²								
_____ Title	_____ Title								
_____ Date	_____ Date								

Mississippi Department of Environmental Quality/Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225
(601) 961-5171

<p>Item X. Storm Water</p> <p>(Check One)</p> <p><input type="checkbox"/> A Storm Water Pollution Prevention Plan (SWPPP) is not required for the site.</p> <p><input type="checkbox"/> The recipient certifies that they have received a copy of the Office of Pollution Control approved SWPPP from the original owner.</p> <p><input type="checkbox"/> The recipient is submitting a new SWPPP, which is attached to this form.</p> <p><input type="checkbox"/> A copy of the SWPPP cannot be obtained from the original owner.</p>	<p>Item XI. Hazardous Waste ID Number</p> <p>EPA ID No. _____</p> <p>(Check One)</p> <p><input type="checkbox"/> An EPA Hazardous Waste ID Number is not required for the site.</p> <p><input type="checkbox"/> The site's EPA ID Number is listed above and a Notification of Regulated Waste Activity Form is attached.</p>
<p>Item XII. Permit(s) and/or Coverage(s) to be Transferred</p>	
<p>Permit Type: _____</p> <p>Permit/Coverage No.: _____</p> <p>Permit Issuance Date: _____</p> <p>Date of General Permit Coverage: _____</p> <p>Permit Expiration Date: _____</p>	<p>Permit Type: _____</p> <p>Permit/Coverage No.: _____</p> <p>Permit Issuance Date: _____</p> <p>Date of General Permit Coverage: _____</p> <p>Permit Expiration Date: _____</p>
<p>Permit Type: _____</p> <p>Permit/Coverage No.: _____</p> <p>Permit Issuance Date: _____</p> <p>Date of General Permit Coverage: _____</p> <p>Permit Expiration Date: _____</p>	<p>Permit Type: _____</p> <p>Permit/Coverage No.: _____</p> <p>Permit Issuance Date: _____</p> <p>Date of General Permit Coverage: _____</p> <p>Permit Expiration Date: _____</p>
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<p>Permit Type: _____</p> <p>Permit/Coverage No.: _____</p> <p>Permit Issuance Date: _____</p> <p>Date of General Permit Coverage: _____</p> <p>Permit Expiration Date: _____</p>	<p>OTHER INFORMATION:</p>

INSPECTION SUSPENSION FORM

UNDER LARGE CONSTRUCTION STORM WATER GENERAL NPDES PERMIT MSR10



MISSISSIPPI DEPARTMENT OF
ENVIRONMENTAL QUALITY

INSTRUCTIONS

Coverage recipients under Mississippi's Large Construction Storm Water General Permit may temporarily suspend required weekly inspections of erosion and sediment controls and monthly record keeping by submission of this form. Inspections may be suspended only when land disturbing activities have ceased, no further land disturbing activities are planned for a period of at least six (6) months, the site is stable with no active erosion, and vegetative cover has been established (see ACT9, S-1). The coverage recipient is responsible for all permit conditions during the suspension period and nothing in this condition shall limit the rights of MDEQ to take enforcement or other actions against the coverage recipient. Once land disturbing activities resume MDEQ must be notified and all inspections and record keeping required by the permit must also resume. Color photographs, representative of the construction site, must be submitted with this inspection form.

COVERAGE RECIPIENT INFORMATION

COVERAGE RECIPIENT CONTACT PERSON: _____

COMPANY NAME: _____

STREET OR P.O. BOX: _____

CITY: _____ STATE: _____ ZIP: _____

PHONE # (INCLUDE AREA CODE): _____ E-MAIL: _____

PROJECT INFORMATION

CONSTRUCTION STORM WATER GENERAL PERMIT COVERAGE NUMBER: **MSR10** _____

PROJECT NAME: _____

CITY: _____ COUNTY: _____

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. **I further certify that: land disturbing activities have ceased, no further land disturbing activities are planned for a period of at least six (6) months, the site is stable with no active erosion, and vegetative cover has been established.**

Signature (must be signed by coverage recipient) _____

Date Signed _____

Printed Name _____

Title _____

Please submit this form to:

Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225

Request for Termination (RFT) of Coverage



LARGE CONSTRUCTION GENERAL PERMIT
Coverage No. MSR10 _____ County _____
(Fill in your Certificate of Coverage Number and County)

This form must be submitted within thirty (30) days of achieving final stabilization (see ACT10, S-1 of general permit). Failure to submit this form is a violation of permit conditions.

The signatory of this form must be the owner or operator (prime contractor) who is the current coverage recipient (rather than the project manager or environmental consultant).

(Please Print or Type)

Project Name: _____

Physical Site Street Address (if not available, indicate nearest named road): _____

City: _____ County: _____ Zip: _____

Coverage Recipient Company Name: _____

Street Address / P.O. Box: _____

City: _____ State: _____ Zip: _____

Coverage Recipient Contact Name and Position: _____ Tel. #: (____) _____

Has another owner(s) or operator(s) assumed control over all areas of the site that have not reached final stabilization?

RESIDENTIAL SUBDIVISIONS:

- ☐ YES. A copy of the Registration Form for Residential Lot Coverage for each lot or out parcel that has been sold and a site map, indicating which lots have been sold, are attached.
- ☐ NO. Coverage may not be terminated until all areas have reached final stabilization.

COMMERCIAL DEVELOPMENT:

- ☐ YES. A copy of the site map, indicating which out-parcels have been sold, is attached.
- ☐ NO. Coverage may not be terminated until all areas have reached final stabilization.

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 fines and imprisonment for knowing violations. I understand that by submitting this Request for Termination and receiving written confirmation, I will no longer be authorized to discharge storm water associated with construction activity under this general permit. Discharging pollutants associated with construction activity to waters of the State without proper permit coverage is a violation of state law. I also understand that the submittal of this Request for Termination does not release an owner or operator from liability for any violations of this permit or the Clean Water Act.

Authorized Name (Print) _____ Telephone _____ Signature _____ Date Signed _____

This application shall be signed according to the General Permit, ACT11, T-7 as follows:

- For a corporation, by a responsible corporate officer.
- For a partnership, by a general partner.
- For a sole proprietorship, by the proprietor.
- For a municipal, state or other public facility, by principal executive officer, mayor, or ranking elected official.

After signing please mail to: Chief, Environmental Permits Division
MS Department of Environmental Quality, Office of Pollution Control
P.O. Box 2261
Jackson, Mississippi 39225

HIGHWAY 305 PUMP STATION AND FORCE MAIN
ADJACENT TO HIGHWAY 305 AND VAIDEN ROAD
DESOTO COUNTY, MISSISSIPPI
STORM WATER POLLUTION PREVENTION PLAN

1. SITE DESCRIPTION

1.1 Nature of Construction

The project will consist of 24,182 linear feet of 12" PVC sanitary sewer force main installed along Highway 305 and Vaiden Road in addition to a 750 gpm pump station installed at the Lewisburg Middle School site. There will be six locations where the force main will be directionally bored underneath waterways and roads. As construction progresses, appropriate erosion and sediment control measures will be provided and maintained in accordance with the attached plans. The site is located in Sections 7-10 and 15 of Township 3 South, Range 6 West of DeSoto County, Mississippi.

1.2 Sequence of Major Activities

Major construction activities will proceed as follows:

- Provide initial erosion control measures
- Clearing and grubbing
- Earthwork activities to install 12" PVC
- Pump station installation
- Directional boring
- Dewatering
- Temporary seeding and site stabilization
- Provide final site stabilization including seeding, fertilizing, and mulching
- Remove BMP's after established growth

Erosion and sediment control measures will be maintained and updated throughout construction in accordance with the attached set of construction plans.

1.3 Area Affected

The total area of the site that will be impacted by construction is approximately 14.7 acres.

1.4 Runoff Coefficient and Soils

The existing runoff coefficient is 0.35 within the existing construction limits.

Once the construction has been completed and the disturbed areas have been re-vegetated, the runoff coefficient will remain at 0.36. All areas within the project boundary, with the exception of the pump station location, will return to their current state once the force main has been installed.

According to the Custom Soil Resource Report, provided by the U.S. Department of Agriculture Natural Resources Conservation Service, soils in this area consist of silty loams and silty clay loams.

1.5 Housekeeping Practices

- Heavy equipment will be inspected daily. Routine maintenance on such equipment will be performed at the job site. Heavy equipment fluids will be handled and stored to prevent spillage. Any spilled heavy equipment fluids and contaminated soil will be removed immediately and disposed of properly.
- General trash will be collected in an approved trash container and disposed of at an approved facility.
- Temporary sanitary facilities will be provided at the job site and shall be serviced as specified in the Sanitary/Septic Waste Management BMP Facts Sheets in Appendix A. The owner or operator shall design, install, implement and maintain practices appropriate to prevent pollutants from entering storm water from the construction site. The location of temporary sanitary facilities on site shall be approved by the Project Engineer before construction begins. See Sanitary/Septic Waste Management BMP Sheets in Appendix A for storage and disposal procedures, maintenance and operation.
- Concrete trucks and testing personnel shall have a designated washout area.

All housekeeping and work activities will be maintained and conducted in such a way that storm water discharge will be free of debris, oil, scum and other floating materials other than in trace amounts. Eroded soils and other materials will be settled as not to form objectionable deposits in receiving waters.

A list of spills and leaks of toxic or hazardous pollutants that have occurred at the project site shall be documented on the Monthly Spill and Leak Log Sheet that is provided in the Notice of Intent package. A separate form shall be completed for each month the project is covered under the stormwater permit. If no spills occur, the form shall be completed by checking the appropriate box and signing it as indicated. The completed forms shall be kept on-site with this SWPPP and made available to MDEQ personnel for inspection upon request.

1.6 Site Map

A set of construction drawings showing the project location as well as indicated drainage patterns and approximate slopes before and after completion of construction will be located on the site at all times.

1.7 Receiving Water

Storm water discharge patterns will not change with development. Discharge from the areas within the project area will be directed to the Coldwater River, Camp Creek Canal and unnamed tributaries of the Coldwater River.

2. EROSION AND SEDIMENT CONTROLS

The Contractor shall construct or install temporary and permanent erosion and sediment control best management practices (BMPs) as specified herein. All BMP measures, both structural and non-structural, shall be inspected within 24 hours prior to an anticipated storm event. Any deficiencies noted during the inspection shall be repaired prior to the storm event. See paragraph 7.1 (Inspections – General) for additional inspection requirements.

2.1 Non-Structural Measures

2.1.1 General

Prior to the beginning of any construction, the Engineer will identify all land resources to be preserved within the Contractor's work area. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms outside the construction limits without special permission. The Contractor shall provide effective protection for land, water and vegetation resources at all times. The Contractor shall be responsible for providing erosion and sediment control measures in accordance with Federal, State, and local laws and regulations to minimize pollutants entering streams, water bodies or wetlands. Water quality standards shall not be violated as a result of the construction activities.

Whenever any clearing, grading, grubbing, excavating or other land disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period of 14 calendar days or more, soil stabilization/vegetative stabilization measures must be initiated. The appropriate temporary or permanent vegetative measure shall be initiated immediately (no later than the next work day).

2.1.2 Preservation of Existing Vegetation

Existing vegetation within the work area shall be preserved where clearing and grubbing is not required. If any Environmentally Sensitive Areas (ESAs) or areas to be preserved are shown on the construction drawings, the designated area shall be preserved prior to the commencement of clearing and grubbing operations or other soil-disturbing activities.

Employees, contractors, and subcontractors shall be instructed to honor protective devices. No heavy equipment, vehicular traffic, or storage piles of any construction materials shall be permitted within the drip line of any tree to be retained. Removed trees shall not be felled, pushed, or pulled into any retained trees. No toxic or construction materials (including paint, acid, nails, gypsum board, chemicals, fuels, and lubricants) shall be stored within 50 feet of the drip line of any retained trees, nor disposed of in any way which would injure vegetation.

Any areas shown on the construction drawings to be preserved shall be marked with temporary fencing of orange polypropylene that is stabilized against ultraviolet light. The temporary fencing shall be at least 3.2 feet tall and shall have openings not larger than 2" by 2". Fence posts shall be either wood or metal, at the Contractor's discretion, as appropriate for the intended purpose. The post spacing and depth shall be adequate to completely support the fence in an upright position.

During construction, the limits of disturbance shall remain clearly marked at all times. If damage to any designated ESA or protected tree still occurs due to construction activity, serious injuries shall be attended to by an arborist. Any damage to the crown, trunk or root system of a retained tree shall be repaired immediately. Damaged roots shall be immediately cut clean. If bark damage occurs, all loosened bark shall be cut back into the undamaged area, with the cut tapered at the top and bottom, and drainage provided at the base of the wood. Cutting of the undamaged area shall be as limited as possible. Stressed or damaged broadleaf trees shall be fertilized (late fall or early spring) to aid recovery.

2.1.3 Reduction of Exposure of Unprotected Erodible Soils

All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. To the extent feasible, riprap, side slopes, back slopes, and any other exposed surfaces shall be stabilized by turfing, temporary seeding, mulching, fabric mats or other approved stabilization methods. Vegetative practices must begin as soon as possible after work in a particular area is completed or within 7 calendar days on areas that will remain unfinished more than 14 calendar days.

2.1.4 Establishment of Turf

Turf shall be established as a permanent erosion control measure on all areas designated to receive turf as shown on the Construction Drawings. If any land disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period of 14 calendar days or more as outlined in paragraph 2.1.1, turf may be used for stabilization of the exposed areas.

2.1.5 Seeding

Seeding shall consist of grasses or grains appropriate for the season in which they are sown. A satisfactory method of sowing shall be employed, using approved mechanical power-driven seeders, mechanical hand-seeders, broadcast-seeders, or other approved methods.

When conditions are such by reasons of drought, high winds, excessive moisture, or other factors that satisfactory results are not likely to be obtained, work shall be halted and resumed only when conditions are favorable or when approved alternative or corrective measures and procedures have been affected.

If any land disturbing activities have temporarily or permanently ceased on any portion of the site and will not resume for a period of 14 calendar days or more as outlined in paragraph 2.1.1, seeding may be used for stabilization of the exposed areas.

2.1.6 Mulching

If used, mulch shall be material that does not contain noxious grass or weed seed that might be detrimental to the turfing being established. Mulch shall be spread uniformly in a continuous blanket, using 2 tons per acre of straw mulch or 1,200 pounds per acre of wood cellulose fiber mulch.

2.1.7 Fertilizer

Fertilizer shall be distributed uniformly over the areas to be turfed at a rate which will supply not less than 13% of available nitrogen, 13% of available phosphorous, and 13% of potash per acre.

2.1.8 Material Storage

The Contractor's staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Engineer. Temporary movement or relocation of Contractor facilities shall be made only when approved by the Engineer. To prevent sediment from entering nearby waters, erosion and sediment controls shall be provided for areas of temporary or permanent excess excavated material. Temporary excavation and embankments for work areas shall be controlled to protect adjacent areas.

Material stockpiles shall be a minimum of 50 feet away from concentrated flows of storm water, drainage courses, and inlets. Bagged materials shall be placed on pallets and under cover.

During the rainy seasons:

- Soil stockpiles shall be covered or protected with soil stabilization measures and a temporary perimeter sediment barrier at all times.
- Stockpiles of asphalt concrete, asphalt concrete rubble, aggregate base, or aggregate subbase shall be covered or protected with a temporary perimeter sediment barrier at all times.

During the non-rainy season:

- Soil stockpiles shall be covered and protected with a temporary perimeter sediment barrier prior to the onset of precipitation.
- Stockpiles of asphalt concrete, asphalt concrete rubble, aggregate base, or aggregate subbase shall be covered or protected with a temporary perimeter sediment barrier prior to the onset of precipitation.

Perimeter controls and covers shall be repaired and/or replaced as needed, or as directed by the Engineer, to keep them functioning properly. Sediment shall be removed when sediment accumulation reaches 1/3 of the barrier height.

See Material Delivery and Storage BMP Fact Sheets and Stockpile Management BMP Fact Sheets in Appendix A for implementation, maintenance and inspection criteria.

2.1.9 Spill Prevention and Control

Spill prevention and control shall be implemented to control spills in a manner that minimizes or prevents the discharge of spilled material to the drainage system or watercourses.

See Spill Prevention and Control BMP Fact Sheets in Appendix A for implementation, maintenance and inspection criteria.

2.1.10 Solid Wastes

Solid waste management procedures and practices shall be implemented to minimize or eliminate the discharge of pollutants to the drainage system or to watercourses as a result of the creation, stockpiling, or removal of construction site wastes.

See Solid Waste Management BMP Fact Sheets in Appendix A for implementation, maintenance and inspection criteria.

2.1.11 Chemical or Hazardous Wastes

These are procedures and practices to minimize or eliminate the discharge of pollutants from construction site hazardous waste to the storm drain systems or to watercourses.

See Hazardous Waste Management BMP Fact Sheets in Appendix A for implementation, maintenance and inspection criteria.

2.1.12 Off-Site Vehicle Tracking

Off-site vehicle tracking of sediments and the generation of dust shall be minimized. A temporary construction entrance consisting of a 3" diameter limestone (gabion stone) shall be utilized. A minimum of a 50 feet long by 10 feet wide stone drive shall be provide to assist in the removal of mud and debris from tires before entering a public right-of-way. The contractor shall be responsible for installing a temporary pipe to allow for positive drainage under the construction entrance, if needed. The construction entrance shall be maintained as needed to serve its intended purpose.

2.1.13 Scheduling

This best management practice (BMP) involves developing a schedule that includes sequencing of construction activities with the implementation of construction site BMPs such as temporary soil stabilization (erosion control) and temporary sediment controls measures. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Construction sequencing shall be scheduled to minimize land disturbance for all projects during the rainy and non-rainy season. Appropriate BMPs shall be implemented during both rainy and non-rainy seasons.

See Scheduling BMP Fact Sheet in Appendix A for additional scheduling information.

2.2 Structural Measures

2.2.1 General

Temporary erosion and sediment control measures such as silt fences, wattles and check dams shall be constructed and maintained until the project is complete and final stabilization is in effect, after which they shall be removed. Erosion and sediment control measures must be in place and functional before earth moving operations begin, and must be constructed and maintained throughout the construction period. If necessary for construction, temporary measures may be removed at the beginning of the workday, but must be replaced at the end of the workday; however, at no time will silt-laden storm water be allowed to discharge into adjacent streams, water bodies or wetlands. All control measures shall be checked, and repaired weekly in dry periods and within 24 hours prior to any storm event. During prolonged rainfall, daily checking and repairing is required.

All sediment control measures shall be designed, installed and maintained, and any additional and/or alternative erosion and sediment control shall be installed as specified in paragraph 2.2.6.

2.2.2 Silt Fences

Silt fences shall be constructed along the toe ends of each excavated material embankment to minimize the entry of erosive material into watercourses or wetlands.

Silt Fences shall be designed, installed, removed, maintained and inspected following the guidelines on the Silt Fence BMP Fact Sheet located in Appendix A.

2.2.3 Wattles (Fiber Rolls)

A fiber roll consists of wood excelsior, rice or wheat straw, or coconut fibers that is rolled or bound into a tight tubular roll and placed to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide removal of sediment from the runoff. Fiber rolls may also be used for inlet protection and as check dams under certain situations.

Fiber rolls shall be selected, installed, removed, maintained and inspected following the guidelines on the Fiber Roll BMP Fact Sheet located in Appendix A.

2.2.4 Stabilized Construction Entrance/Exit

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

The stabilized construction entrance/exit shall be located as designated by the Engineer and shall be installed, maintained and inspected following the guidelines on the Stabilized Construction Entrance/Exit BMP Fact Sheet located in Appendix A.

2.2.5 Velocity Dissipation Devices/Check Dams

Velocity dissipation devices (check dams) shall be installed as shown on the Erosion and Sediment Control Plan of the construction drawings. These devices shall be removed after the erosive areas have been stabilized. See Check Dam BMP Fact Sheet in Appendix A for guidelines on check dam design, installation, maintenance and inspection.

2.2.6 Concrete Washout

A concrete washout shall be provided in a signed, designated area. The concrete washout shall be bermed, and lined with a plastic liner to allow for easy removal of concrete washout. The concrete washout shall be located in a conspicuous location as approved by the Engineer. Concrete trucks will not be allowed to washout over bare ground, into streams, ditches, or other storm water conveyances such as inlets or pipes.

2.2.7 Other Measures

Other temporary erosion and sediment control devices such as sediment basins, dikes, swales, and drains may be used in lieu of the above mentioned measures provided they are consistent with Best Management Practices (BMPs) and approved by the Engineer. These devices shall be maintained until permanent drainage and erosion control facilities are complete and operative. Earthen erosion control features shall be compacted and stabilized immediately with vegetation as specified in paragraphs 2.1.5 and 2.1.6.

2.3 Records

A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated and completed shall be kept by the Contractor at the construction site at all times.

3. STORM WATER MANAGEMENT

In order to provide permanent storm water pollution protection, turf shall be established on all disturbed areas within the construction limits. Permanent turf shall be established in accordance with the Contract Technical Specifications.

4. OTHER CONTROLS

4.1 General

Construction activities shall be kept under surveillance, management and control to avoid pollution of surface and ground waters. Special management techniques shall be implemented to control water pollution.

4.2 Prohibited Non-Storm Water Discharges

Wastewaters directly derived from construction activities where detergents are used shall not be allowed to enter waterways. These wastewaters shall be collected and placed in retention ponds where suspended material can settle out or the water evaporates so that pollutants are separated from the water. The contractor shall dispose of remaining pollutants according to local and State ordinances and regulations.

List of prohibited Non-Storm Water Discharges:

- Wastewater from washout of concrete (unless managed by an appropriate control)
- Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials
- Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance
- Soaps or solvents used in vehicle and equipment washing
- Wastewater from sanitary facilities, including portable toilets.

5. STATE AND LOCAL PLANS

There are no known State erosion and sediment control requirements applicable to this work other than those met by the requirements of this permit. The project must comply with the DeSoto County Stormwater Ordinance.

6. MAINTENANCE

Maintenance of the Storm Water Pollution Prevention measures will be the responsibility of the contractor until construction is complete and the project is accepted by the owner.

See Section 2 of this SWPPP and individual BMP Fact sheets in Appendix A for maintenance requirements and procedures.

7. INSPECTIONS

7.1 General

Quality assurance representatives shall inspect both structural and non-structural BMPs, locations where vehicles enter or exit the site, and outfalls/discharge points of the construction site, that are exposed to precipitation and have not been finally stabilized, every seven (7) calendar days and within 24 hours of the end of a storm that produces any discharge, at a minimum.

Where sites have been stabilized, inspections shall be conducted at least once every month.

All areas within the limits of construction that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operated correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.

7.2 Modification of Pollution Plan

Based on the results of the inspection in Paragraph 7.1, the site description identified in Section 1 of this plan shall be revised as appropriate, but in no case more than 7 calendar days following the inspection. Such modifications shall provide for timely implementation of any changes to the plan within 7 calendar days following the inspection.

7.3 Reports

A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the Storm Water Pollution Prevention Plan (SWPPP), and actions taken shall be recorded and retained as part of the SWPPP for at least three (3) years from the date the site is finally stabilized. Reports shall be filed on an applicable form and reported to the applicable agencies.

If there is a change in design, construction, operation, or maintenance, which may increase the discharge of pollutants to State waters or the SWPPP proves to be ineffective in controlling storm water pollutants, an amendment plan shall be submitted to the MDEQ Permitting Board within 30 days of the amendment.

8. NPDES PERMIT

A copy of the documentation for the NPDES Permit pertaining to this construction activity is located in Appendix B.

9. DEFINITIONS

9.1 Best Management Practices (BMPs)

Schedules of activities, prohibitions of practices, maintenance procedures, and other management practice to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements, operation procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

9.2 Commencement of Construction

The initial disturbance of soils associated with clearing, grading, or excavating activities or other construction activities.

9.3 Drainage Swale

A drainage way with a lining of grass, riprap, asphalt, or other material installed to convey runoff without causing erosion.

9.4 Check Dam

Small temporary dams constructed across a swale or drainage ditch to reduce the velocity of runoff flows.

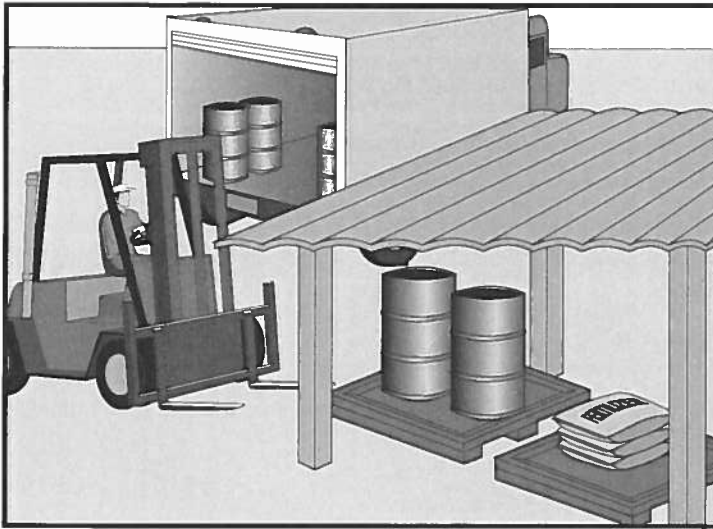
9.5 Final Stabilization

All soil-disturbing activities at the site have been completed, and a uniform perennial vegetative cover with a density of 85% of the cover for the area has been established or equivalent stabilization measures (such as the use of mulches or geotextiles) have been employed.

SWPPP - APPENDIX A

BMP FACT SHEETS

Material Delivery and Storage



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose Procedures and practices for the proper handling and storage of materials in a manner that minimizes or eliminates the discharge of these materials to the storm drain system or to watercourses.

Appropriate Applications These procedures are implemented at all construction sites with delivery and storage of the following:

- Hazardous chemicals such as:
 - Acids,
 - lime,
 - glues,
 - adhesives,
 - paints,
 - solvents, and
 - curing compounds.
- Soil stabilizers and binders.
- Fertilizers.
- Detergents.
- Plaster.
- Petroleum products such as fuel, oil, and grease.
- Asphalt and concrete components.
- Pesticides and herbicides.

Material Delivery and Storage

- Other materials that may be detrimental if released to the environment.

Limitations

- Space limitation may preclude indoor storage.
- Storage sheds must meet building & fire code requirements.

Standards and Specifications

General

- Train employees and subcontractors on the proper material delivery and storage practices.
- Temporary storage area shall be located away from vehicular traffic.
- Material Safety Data Sheets (MSDS) shall be supplied to the Resident Engineer (RE) for all materials stored.

Material Storage Areas and Practices

- Liquids, petroleum products, and substances listed in 40 CFR Parts 110, 117, or 302 shall be stored in approved containers and drums and shall be placed in temporary containment facilities for storage.
- Throughout the rainy season, each temporary containment facility shall have a permanent cover and side wind protection or be covered during non-working days and prior to and during rain events.
- A temporary containment facility shall provide for a spill containment volume able to contain precipitation from a 24-hour, 25-year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest container within its boundary, whichever is greater.
- A temporary containment facility shall be impervious to the materials stored therein for a minimum contact time of 72 hours.
- A temporary containment facility shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks, accumulated rainwater and spills shall be collected and placed into drums. These liquids shall be handled as a hazardous waste unless testing determines them to be non-hazardous. All collected liquids or non-hazardous liquids shall be sent to an approved disposal site.
- Sufficient separation shall be provided between stored containers to allow for spill cleanup and emergency response access.
- Incompatible materials, such as chlorine and ammonia, shall not be stored in the same temporary containment facility.
- Materials shall be stored in their original containers and the original product labels shall be maintained in place in a legible condition. Damaged or otherwise illegible labels shall be replaced immediately.

Material Delivery and Storage

- Bagged and boxed materials shall be stored on pallets and shall not be allowed to accumulate on the ground. To provide protection from wind and rain, throughout the rainy season, bagged and boxed materials shall be covered during non-working days and prior to rain events.
- Stockpiles shall be protected in accordance with BMP Fact Sheet, “Stockpile Management.”
- Minimize the material inventory stored on-site (e.g., only a few days supply).
- Have proper storage instructions posted at all times in an open and conspicuous location.
- Do not store hazardous chemicals, drums, or bagged materials directly on the ground. Place these items on a pallet and when possible, under cover in secondary containment.
- Keep hazardous chemicals well labeled and in their original containers.
- Keep ample supply of appropriate spill clean up material near storage areas.
- Also see BMP Fact Sheet “Hazardous Waste Management”, for storing of hazardous materials.

Material Delivery Practices

- Keep an accurate, up-to-date inventory of material delivered and stored on-site.
- Employees trained in emergency spill clean-up procedures shall be present when dangerous materials or liquid chemicals are unloaded.

Spill Clean-up

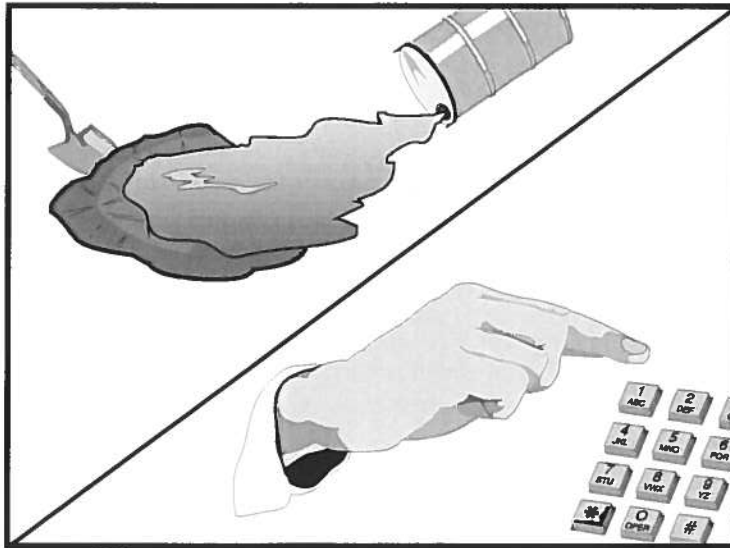
- Contain and clean up any spill immediately.
- If significant residual materials remain on the ground after construction is complete, properly remove and dispose any hazardous materials or contaminated soil.
- See BMP Fact Sheet, “Spill Prevention and Control”, for spills of chemicals and/or hazardous materials.

Material Delivery and Storage

Maintenance and Inspection

- Storage areas shall be kept clean, well organized, and equipped with ample clean-up supplies as appropriate for the materials being stored.
- Perimeter controls, containment structures, covers, and liners shall be repaired or replaced as needed to maintain proper function.
- Inspect storage areas before and after rainfall events, and at least weekly during other times. Collect and place into drums any spills or accumulated rainwater.

Spill Prevention and Control



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose

These procedures and practices are implemented to prevent and control spills in a manner that minimizes or prevents the discharge of spilled material to the drainage system or watercourses.

Appropriate Application

This best management practice (BMP) applies to all construction projects. Spill control procedures are implemented anytime chemicals and/or hazardous substances are stored. Substances may include, but are not limited to:

- Soil stabilizers/binders.
- Dust Palliatives.
- Herbicides.
- Growth inhibitors.
- Fertilizers.
- Deicing/anti-icing chemicals.
- Fuels.
- Lubricants.
- Other petroleum distillates.

To the extent that the work can be accomplished safely, spills of oil, petroleum products, substances listed under 40 CFR parts 110, 117, and 302, and sanitary and septic wastes shall be contained and cleaned up immediately.

Spill Prevention and Control

Limitations ■ This BMP only applies to spills caused by the contractor.

- Procedures and practices presented in this BMP are general. Contractor shall identify appropriate practices for the specific materials used or stored on-site.

Standards and Specifications

- To the extent that it doesn't compromise clean up activities, spills shall be covered and protected from storm water run-on during rainfall.
- Spills shall not be buried or washed with water.
- Used clean up materials, contaminated materials, and recovered spill material that is no longer suitable for the intended purpose shall be stored and disposed of in conformance with the special provisions.
- Water overflow or minor water spillage shall be contained and shall not be allowed to discharge into drainage facilities or watercourses.
- Proper storage, clean-up and spill reporting instruction for hazardous materials stored or used on the project site shall be posted at all times in an open, conspicuous and accessible location.
- Waste storage areas shall be kept clean, well organized and equipped with ample clean-up supplies as appropriate for the materials being stored. Perimeter controls, containment structures, covers and liners shall be repaired or replaced as needed to maintain proper function.

Education

- Educate employees and subcontractors on what a "significant spill" is for each material they use, and what is the appropriate response for "significant" and "insignificant" spills.
- Educate employees and subcontractors on potential dangers to humans and the environment from spills and leaks.
- Hold regular meetings to discuss and reinforce appropriate disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.
- The Contractor's Water Pollution Control Manager (WPCM) shall oversee and enforce proper spill prevention and control measures.

Spill Prevention and Control

Cleanup and Storage Procedures

■ Minor Spills

- Minor spills typically involve small quantities of oil, gasoline, paint, etc., which can be controlled by the first responder at the discovery of the spill.
- Use absorbent materials on small spills rather than hosing down or burying the spill.
- Remove the absorbent materials promptly and dispose of properly.
- The practice commonly followed for a minor spill is:
 - Contain the spread of the spill.
 - Recover spilled materials.
 - Clean the contaminated area and/or properly dispose of contaminated materials.

■ Semi-Significant Spills

- Semi-significant spills still can be controlled by the first responder along with the aid of other personnel such as laborers and the foreman, etc. This response may require the cessation of all other activities.
- Clean up spills immediately:
 - Notify the project foreman immediately. The foreman shall notify the Project Engineer.
 - Contain spread of the spill.
 - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (absorbent materials, cat litter and/or rags). Contain the spill by encircling with absorbent materials and do not let the spill spread widely.
 - If the spill occurs in dirt areas, immediately contain the spill by constructing an earthen dike. Dig up and properly dispose of contaminated soil.
 - If the spill occurs during rain, cover spill with tarps or other material to prevent contaminating runoff.

Spill Prevention and Control

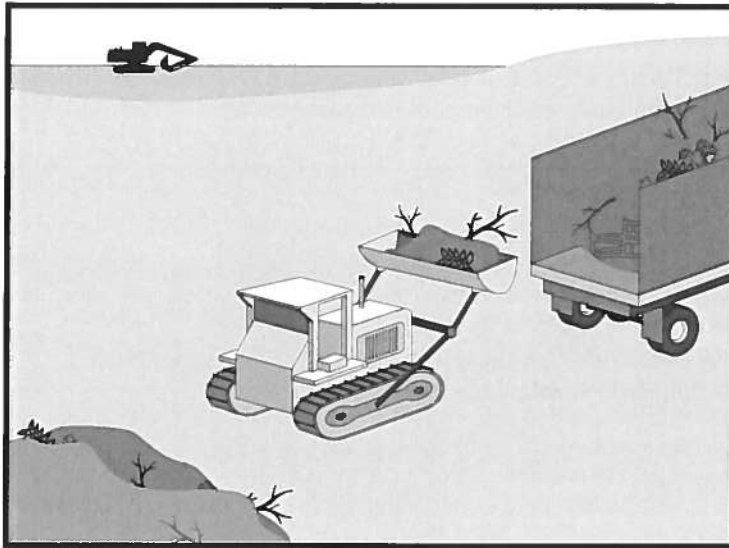
■ Significant/Hazardous Spills

- For significant or hazardous spills that cannot be controlled by personnel in the immediate vicinity, the following steps shall be taken:
 - Notify the PE immediately and follow up with a written report.
 - Notify the local emergency response by dialing 911. In addition to 911, the contractor will notify the proper county officials. It is the contractor's responsibility to have all emergency phone numbers at the construction site.
 - Notify the Governor's Office of Emergency Services Warning Center,
 - For spills of federal reportable quantities, in conformance with the requirements in 40 CFR parts 110, 119, and 302, the contractor shall notify the National Response Center at (800) 424-8802.
 - Notification shall first be made by telephone and followed up with a written report.
 - The services of a spills contractor or a Haz-Mat team shall be obtained immediately. Construction personnel shall not attempt to clean up the spill until the appropriate and qualified staff have arrived at the job site.
 - Other agencies which may need to be consulted include, but are not limited to, the Fire Department, the Public Works Department, the Coast Guard, the Highway Patrol, the City/County Police Department, Department of Toxic Substances, California Division of Oil and Gas, Cal/OSHA, RWQCB, etc.

Maintenance and Inspection

- Verify weekly that spill control clean up materials are located near material storage, unloading, and use areas.
- Update spill prevention and control plans and stock appropriate clean-up materials whenever changes occur in the types of chemicals used or stored onsite.

Solid Waste Management



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose Solid waste management procedures and practices are designed to minimize or eliminate the discharge of pollutants to the drainage system or to watercourses as a result of the creation, stockpiling, or removal of construction site wastes.

Appropriate Applications Solid waste management procedures and practices are implemented on all construction projects that generate solid wastes.

Solid wastes include but are not limited to:

- Construction wastes including brick, mortar, timber, steel and metal scraps, sawdust, pipe and electrical cuttings, non-hazardous equipment parts, styrofoam and other materials used to transport and package construction materials.
- Highway planting wastes, including vegetative material, plant containers, and packaging materials.
- Litter, including food containers, beverage cans, coffee cups, paper bags, plastic wrappers, and smoking materials, including litter generated by the public.

Limitations ■ Temporary stockpiling of certain construction wastes may not necessitate stringent drainage related controls during the non-rainy season or in desert areas with low rainfall.

Solid Waste Management

Standards and Specifications

Education

- The Contractor's Water Pollution Control Manager (WPCM) shall oversee and enforce proper solid waste procedures and practices.
- Instruct employees and subcontractors on identification of solid waste and hazardous waste.
- Educate employees and subcontractors on solid waste storage and disposal procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Require that employees and subcontractors follow solid waste handling and storage procedures.
- Prohibit littering by employees, subcontractors, and visitors.
- Wherever possible, minimize production of solid waste materials.

Collection, Storage, and Disposal

- Dumpsters of sufficient size and number shall be provided to contain the solid waste generated by the project and properly serviced.
- Littering on the project site shall be prohibited.
- To prevent clogging of the storm drainage system litter and debris removal from drainage grates, trash racks, and ditch lines shall be a priority.
- Trash receptacles shall be provided in the Contractor's yard, field trailer areas, and at locations where workers congregate for lunch and break periods.
- Construction debris and litter from work areas within the construction limits of the project site shall be collected and placed in watertight dumpsters at least weekly regardless of whether the litter was generated by the Contractor, the public, or others. Collected litter and debris shall not be placed in or next to drain inlets, storm water drainage systems or watercourses.
- Full dumpsters shall be removed from the project site and the contents shall be disposed of in accordance with Federal, State, and local laws.
- Litter stored in collection areas and containers shall be handled and disposed of by trash hauling contractors.
- Construction debris and waste shall be removed from the site every two weeks or as directed by the PE.

Solid Waste Management

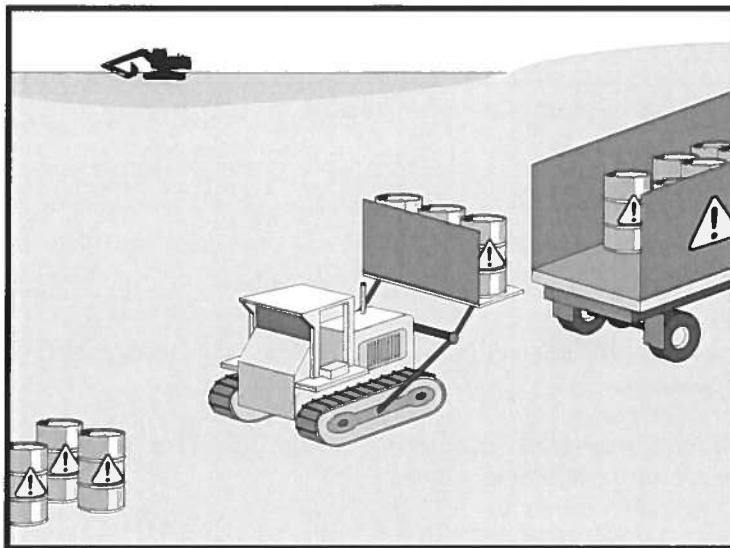
- Construction material visible to the public shall be stored or stacked in an orderly manner to the satisfaction of the PE.
- Storm water run-on shall be prevented from contacting stored solid waste through the use of berms, dikes, or other temporary diversion structures or through the use of measures to elevate waste from site surfaces.
- Solid waste storage areas shall be located at least 50 ft from drainage facilities and watercourses and shall not be located in areas prone to flooding or ponding.
- Except during fair weather, construction and highway planting waste not stored in watertight dumpsters shall be securely covered from wind and rain by covering the waste with tarps or plastic sheeting or protected in conformance with the applicable Disturbed Soil Area protection section.
- Dumpster washout on the project site is not allowed.
- Notify trash hauling contractors that only watertight dumpsters are acceptable for use on-site.
- Plan for additional containers during the demolition phase of construction.
- Plan for more frequent pickup during the demolition phase of construction.
- Construction waste shall be stored in a designated area approved by the PE.
- Segregate potentially hazardous waste from non-hazardous construction site waste.
- Keep the site clean of litter debris.
- Make sure that toxic liquid wastes (e.g., used oils, solvents, and paints) and chemicals (e.g., acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for construction debris.
- For disposal of hazardous waste, see BMP Fact Sheet, "Hazardous Waste Management." Have hazardous waste hauled to an appropriate disposal and/or recycling facility.
- Salvage or recycle useful vegetation debris, packaging and/or surplus building materials when practical. For example, trees and shrubs from land clearing can be converted into wood chips, then used as mulch on graded areas. Wood pallets, cardboard boxes, and construction scraps can also be recycled.

Solid Waste Management

Maintenance and Inspection

- The WPCM shall monitor onsite solid waste storage and disposal procedures.
- Police site for litter and debris.

Hazardous Waste Management



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose

These are procedures and practices to minimize or eliminate the discharge of pollutants from construction site hazardous waste to the storm drain systems or to watercourses.

Appropriate Applications

- This best management practice (BMP) applies to all construction projects.
- Hazardous waste management practices are implemented on construction projects that generate waste from the use of:
 - Petroleum Products,
 - Asphalt Products,
 - Concrete Curing Compounds,
 - Pesticides,
 - Acids,
 - Paints,
 - Stains,
 - Solvents,
 - Wood Preservatives,
 - Roofing Tar

Hazardous Waste Management

- Limitations**
- Nothing in this BMP relieves the Contractor from responsibility for compliance with federal, state, and local laws regarding storage, handling, transportation, and disposal of hazardous wastes.

Standards and Specifications

Education

- Educate employees and subcontractors on hazardous waste storage and disposal procedures.
- Educate employees and subcontractors on potential dangers to humans and the environment from hazardous wastes.
- Instruct employees and subcontractors on safety procedures for common construction site hazardous wastes.
- Instruct employees and subcontractors in identification of hazardous and solid waste.
- Hold regular meetings to discuss and reinforce hazardous waste management procedures (incorporate into regular safety meetings).
- The Contractor's Water Pollution Control Manager (WPCM) shall oversee and enforce proper hazardous waste management procedures and practices.
- Make sure that hazardous waste is collected, removed, and disposed of only at authorized disposal areas.

Storage Procedures

- Wastes shall be stored in sealed containers constructed of a suitable material and shall be labeled as required by 49 CFR Parts 172, 173, 178, and 179.
- All hazardous waste shall be stored, transported, and disposed as required in 49 CFR 261-263.
- Waste containers shall be stored in temporary containment facilities that shall comply with the following requirements:
 - Temporary containment facility shall provide for a spill containment volume able to contain precipitation from a 24-hour, 25 year storm event, plus the greater of 10% of the aggregate volume of all containers or 100% of the capacity of the largest tank within its boundary, whichever is greater.

Hazardous Waste Management

- Temporary containment facility shall be impervious to the materials stored there for a minimum contact time of 72 hours.
 - Temporary containment facilities shall be maintained free of accumulated rainwater and spills. In the event of spills or leaks accumulated rainwater and spills shall be placed into drums after each rainfall. These liquids shall be handled as a hazardous waste unless testing determines them to be non-hazardous. Non-hazardous liquids shall be sent to an approved disposal site.
 - Sufficient separation shall be provided between stored containers to allow for spill cleanup and emergency response access.
 - Incompatible materials, such as chlorine and ammonia, shall not be stored in the same temporary containment facility.
 - Throughout the rainy season, temporary containment facilities shall be covered during non-working days, and prior to rain events. Covered facilities may include use of plastic tarps for small facilities or constructed roofs with overhangs. A storage facility having a solid cover and sides is preferred to a temporary tarp. Storage facilities shall be equipped with adequate ventilation.
- Drums shall not be overfilled and wastes shall not be mixed.
 - Unless watertight, containers of dry waste shall be stored on pallets.
 - Paint brushes and equipment for water and oil based paints shall be cleaned within a contained area and shall not be allowed to contaminate site soils, watercourses or drainage systems. Waste paints, thinners, solvents, residues, and sludges that cannot be recycled or reused shall be disposed of as hazardous waste. When thoroughly dry, latex paint and paint cans, used brushes, rags, absorbent materials, and drop cloths shall be disposed of as solid waste.
 - Ensure that adequate hazardous waste storage volume is available.
 - Ensure that hazardous waste collection containers are conveniently located.
 - Designate hazardous waste storage areas on site away from storm drains or watercourses and away from moving vehicles and equipment to prevent accidental spills.
 - Minimize production or generation of hazardous materials and hazardous waste on the job site.
 - Use containment berms in fueling and maintenance areas and where the potential for spills is high.

Hazardous Waste Management

- Segregate potentially hazardous waste from non-hazardous construction site debris.
- Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or similar) and under cover.
- Clearly label all hazardous waste containers with the waste being stored and the date of accumulation.
- Place hazardous waste containers in secondary containment.
- Do not allow potentially hazardous waste materials to accumulate on the ground.
- Do not mix wastes.

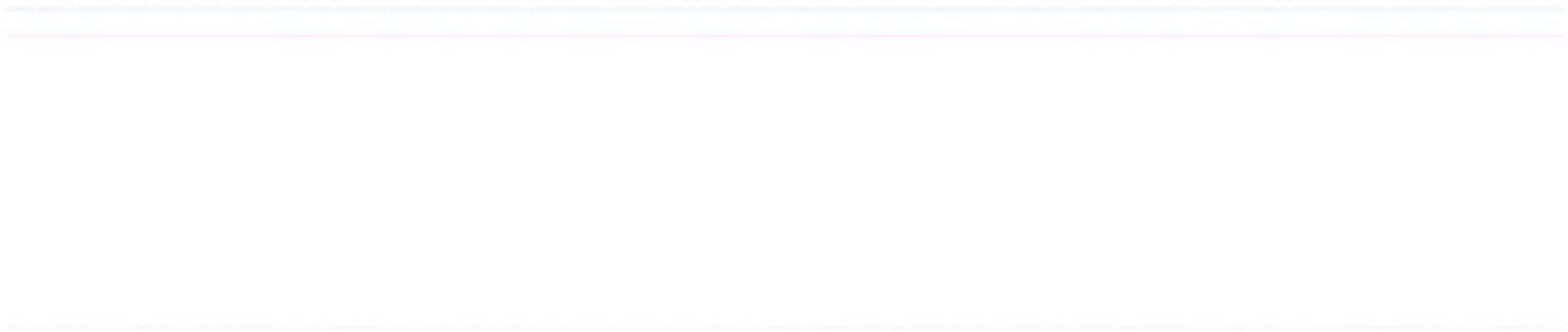
Disposal Procedures

- Waste shall be disposed of within 90 days of being generated, or as directed by the Project Engineer (PE).
- Waste shall be disposed of by a licensed hazardous waste transporter at an authorized and licensed disposal facility or recycling facility utilizing properly completed Uniform Hazardous Waste Manifest forms.
- A Department of Health Services (DHS) certified laboratory shall sample waste and classify it to determine the appropriate disposal facility.
- Make sure that toxic liquid wastes (e.g., used oils, solvents, and paints) and chemicals (e.g., acids, pesticides, additives, curing compounds) are not disposed of in dumpsters designated for solid waste construction debris.
- Properly dispose of rainwater in secondary containment that may have mixed with hazardous waste.
- Recycle any useful material such as used oil or water-based paint when practical.

Hazardous Waste Management

Maintenance and Inspection

- A foreman and/or construction supervisor shall monitor on-site hazardous waste storage and disposal procedures.
- Waste storage areas shall be kept clean, well organized, and equipped with ample clean-up supplies as appropriate for the materials being stored.
- Storage areas shall be inspected in conformance with the provisions in the contract documents.
- Perimeter controls, containment structures, covers, and liners shall be repaired or replaced as needed to maintain proper function.
- Hazardous spills shall be cleaned up and reported in conformance with the applicable Material Safety Data Sheet (MSDS) and the instructions posted at the project site.
- The National Response Center, at (800) 424-8802, shall be notified of spills of Federal reportable quantities in conformance with the requirements in 40 CFR parts 110, 117, and 302.
- Copy of the hazardous waste manifests shall be provided to the PE.



Scheduling

JANUARY				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
		1	2 NTP MOBILIZATION	3
			9	10 Grading
6 Install erosion & sediment control measures	7	8 Land clearing	15	16
12	13	14	22	23

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose This best management practice (BMP) involves developing, for every project, a schedule that includes sequencing of construction activities with the implementation of construction site BMPs such as temporary soil stabilization (erosion control) and temporary sediment controls measures. The purpose is to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff and vehicle tracking, and to perform the construction activities and control practices in accordance with the planned schedule.

Appropriate Applications Construction sequencing shall be scheduled to minimize land disturbance for all projects during the rainy and non-rainy season. Appropriate BMPs shall be implemented during both rainy and non-rainy seasons.

Limitations None identified.

- Standards and Specifications**
- Developing a schedule and planning the project are the very first steps in an effective storm water program. The schedule shall clearly show how the rainy season relates to soil-disturbing and re-stabilization activities. The construction schedule shall be incorporated into the SWPPP.
 - The schedule shall include detail on the rainy season implementation and deployment of:
 - Temporary soil stabilization BMPs.
 - Temporary sediment control BMPs.
 - Tracking control BMPs.
 - Wind erosion control BMPs.

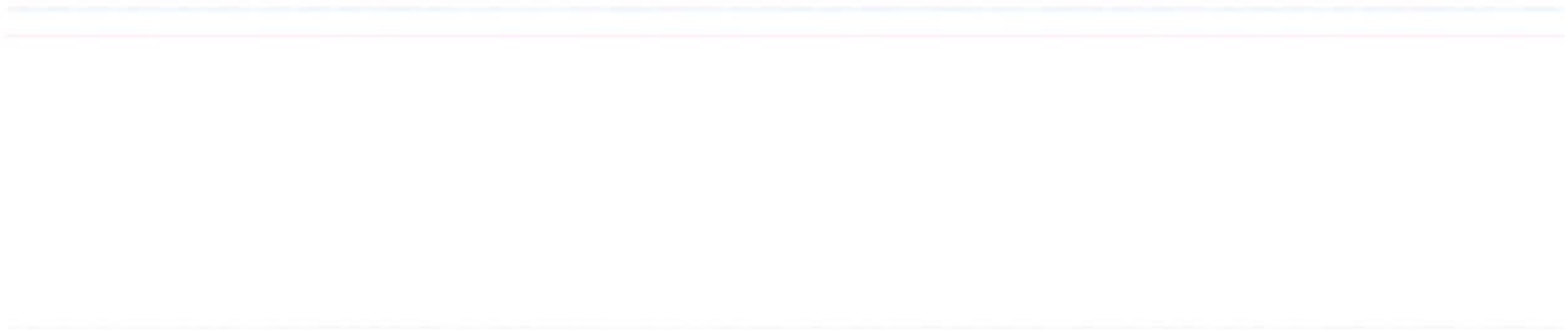
Scheduling

- Non-storm water BMPs.
 - Waste management and materials pollution control BMPs.
 - Schedule shall also include dates for significant long-term operations or activities that may have planned non-storm water discharges such as dewatering, sawcutting, grinding, drilling, boring, crushing, blasting, painting, hydro-demolition, mortar mixing, bridge cleaning, etc.
 - Schedule work to minimize soil disturbing activities during the rainy season.
 - Develop the sequencing and timetable for the start and completion of each item such as site clearing and grubbing, grading, excavation, paving, pouring foundations, installing utilities, etc., to minimize the active construction area during the rainy season.
 - Schedule major grading operations for the non-rainy season when practical.
 - Stabilize non-active areas within 14 days from the cessation of soil-disturbing activities or one day prior to the onset of precipitation, whichever occurs first.
 - Monitor the weather forecast for rainfall.
 - When rainfall is predicted, adjust the construction schedule to allow the implementation of soil stabilization and sediment controls and sediment treatment controls on all disturbed areas prior to the onset of rain.
 - Be prepared year-round to deploy soil stabilization and sediment control practices. Erosion may be caused during dry seasons by unseasonal rainfall, wind, and vehicle tracking. Keep the site stabilized year-round, and retain and maintain rainy season sediment trapping devices in operational condition.
-
- Sequence trenching activities so that most open portions are closed before new trenching begins.
 - Incorporate staged seeding and re-vegetation of graded slopes as work progresses.
 - Consider scheduling when establishing permanent vegetation (appropriate planting time for specified vegetation).
 - Apply permanent erosion control to areas deemed substantially complete during the project's defined seeding window.
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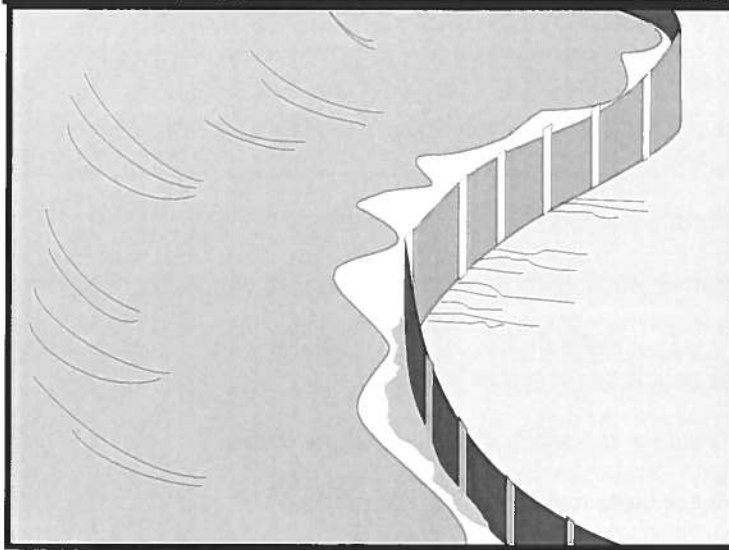
Scheduling

Maintenance and Inspection

- Verify that work is progressing in accordance with the schedule. If progress deviates, take corrective actions.
- Amend the schedule when changes are warranted or when directed by the Project Engineer (PE).
- The Special Provisions require annual submittal of a rainy season implementation schedule. Amend the schedule prior to the rainy season to show updated information on the deployment and implementation of construction site BMPs.



Silt Fence



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose A silt fence is a temporary linear sediment barrier of permeable fabric designed to intercept and slow the flow of sediment-laden sheet flow runoff. Silt fences allow sediment to settle from runoff before water leaves the construction site.

Appropriate Applications Silt fences are placed:

- Below the toe of exposed and erodible slopes.
- Down-slope of exposed soil areas.
- Around temporary stockpiles.
- Along streams and channels.
- Along the perimeter of a project.

Limitations

- Not effective unless trenched and keyed in.
- Not intended for use as mid-slope protection on slopes greater than 1:4 (V:H).
- Must be maintained.
- Must be removed and disposed of.
- Don't use below slopes subject to creep, slumping, or landslides.
- Don't use in streams, channels, drain inlets, or anywhere flow is concentrated.
- Don't use silt fences to divert flow.

Silt Fence

Standards and Specifications

Design and Layout

- The maximum length of slope draining to any point along the silt fence shall be 200 ft or less.
- Slope of area draining to silt fence shall be less than 1:1 (V:H).
- Limit to locations suitable for temporary ponding or deposition of sediment.
- Fabric life span generally limited to between five and eight months. Longer periods may require fabric replacement.
- Silt fences shall not be used in concentrated flow areas.
- Lay out in accordance with Pages 5 and 6 of this BMP.
- For slopes steeper than 1:2 (V:H) and that contain a high number of rocks or large dirt clods that tend to dislodge, it may be necessary to install additional protection immediately adjacent to the bottom of the slope, prior to installing silt fence. Additional protection may be a chain link fence or a cable fence.
- For slopes adjacent to water bodies or Environmentally Sensitive Areas (ESAs), additional temporary soil stabilization BMPs shall be used.

Materials

- Silt fence fabric shall be woven polypropylene with a minimum width of 36 inches and a minimum tensile strength of 0.45-kN. The fabric shall conform to the requirements in ASTM designation D4632 and shall have an integral reinforcement layer. The reinforcement layer shall be a polypropylene, or equivalent, net provided by the manufacturer. The permittivity of the fabric shall be between 0.1 sec^{-1} and 0.15 sec^{-1} in conformance with the requirements in ASTM designation D4491. Contractor must submit certificate of compliance in accordance with Standard Specifications Section 6-1.07.
- Wood stakes shall be commercial quality lumber of the size and shape shown on the plans. Each stake shall be free from decay, splits or cracks longer than the thickness of the stake or other defects that would weaken the stakes and cause the stakes to be structurally unsuitable.
- Bar reinforcement may be used, and its size shall be equal to a number four (4) or greater. End protection shall be provided for any exposed bar reinforcement.
- Staples used to fasten the fence fabric to the stakes shall be not less than 1.75 inches long and shall be fabricated from 0.06 inch or heavier wire. The wire used to fasten the tops of the stakes together when

Silt Fence

joining two sections of fence shall be 0.12 inch or heavier wire.
Galvanizing of the fastening wire is not required.

Installation

- Generally, silt fences shall be used in conjunction with soil stabilization source controls up slope to provide effective erosion and sediment control.
- Bottom of the silt fence shall be keyed-in a minimum of 12 inches.
- Trenches shall not be excavated wider and deeper than necessary for proper installation of the temporary linear sediment barriers.
- Excavation of the trenches shall be performed immediately before installation of the temporary linear sediment barriers.
- Construct silt fences with a set-back of at least 3 ft from the toe of a slope. Where a silt fence is determined to be not practical due to specific site conditions, the silt fence may be constructed at the toe of the slope, but shall be constructed as far from the toe of the slope as practical.
- Construct the length of each reach so that the change in base elevation along the reach does not exceed $\frac{1}{3}$ the height of the barrier; in no case shall the reach exceed 490 ft.
- Cross barriers shall be a minimum of $\frac{1}{3}$ and a maximum of $\frac{1}{2}$ the height of the linear barrier.
- Install in accordance with Pages 5 and 6 of this BMP.

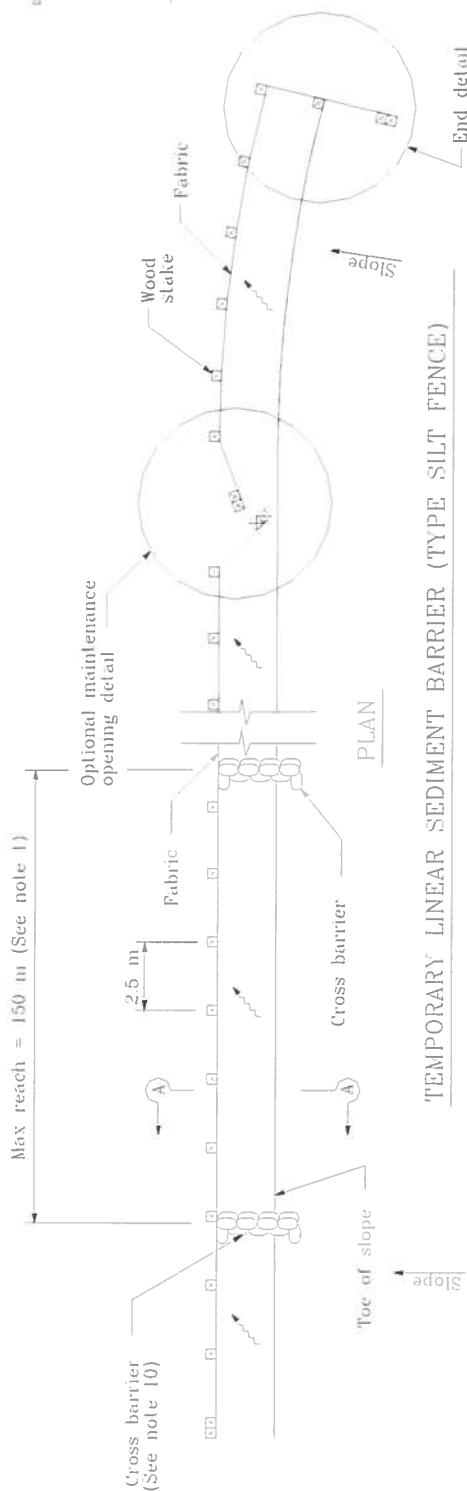
Maintenance and Inspection

- Repair undercut silt fences.
- Repair or replace split, torn, slumping, or weathered fabric.
- Inspect silt fence when rain is forecast. Perform necessary maintenance, or maintenance required by the Project Engineer (PE).
- Inspect silt fence following rainfall events. Perform maintenance as necessary, or as required by the PE.
- Maintain silt fences to provide an adequate sediment holding capacity. Sediment shall be removed when the sediment accumulation reaches one-third ($\frac{1}{3}$) of the barrier height. Removed sediment shall be incorporated in the project at locations designated by the PE or disposed of outside the right-of-way in conformance with the Standard Specifications.
- Silt fences that are damaged and become unsuitable for the intended purpose, as determined by the PE, shall be removed from the site of work, disposed of outside the highway right-of-way in conformance with the Standard Specifications, and replaced with new silt fence barriers.

Silt Fence

- Holes, depressions or other ground disturbance caused by the removal of the temporary silt fences shall be backfilled and repaired in conformance with the Standard Specifications.
- Remove silt fence when no longer needed or as required by the PE. Fill and compact post holes and anchorage trench, remove sediment accumulation, and grade fence alignment to blend with adjacent ground.

Silt Fence



PLAN

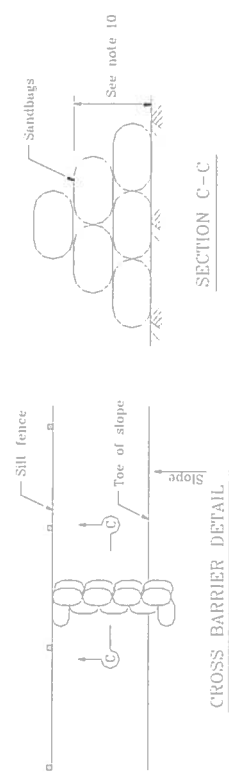
TEMPORARY LINEAR SEDIMENT BARRIER (TYPE SILT FENCE)

NOTES

- 1 Construct the length of each reach so that the change in base elevation along the reach does not exceed 1/3 the height of the linear barrier. In no case shall the reach length exceed 150m.
- 2 The last 2.5 m of fence shall be turned up slope.
- 3 Stake dimensions are nominal.
- 4 Dimension may vary to fit field condition.
- 5 Stakes shall be spaced at 2.5 m maximum and shall be positioned on downstream side of fence.
- 6 Stakes to overlap and fence fabric to fold around each stake one full turn. Secure fabric to stake with 4 staples.
- 7 Stakes shall be driven tightly together to prevent potential flow-through of sediment at joint. The tops of the stakes shall be secured with wire.
- 8 For end stake fence fabric shall be folded around two stakes one full turn and secured with 4 staples.
- 9 Minimum 4 staples per stake. Dimensions shown are typical.
- 10 Cross barriers shall be a minimum of 1/3 and a maximum of 1/2 the height of the linear barrier.
- 11 Maintenance openings shall be constructed in a manner to ensure sediment remains behind silt fence.
- 12 Joining sections shall not be placed at sump locations.
- 13 Sandbag rows and layers shall be offset to eliminate gaps.

LEGEND

- Tamped backfill
- Slope direction
- Direction of flow



CROSS BARRIER DETAIL

SECTION C-C

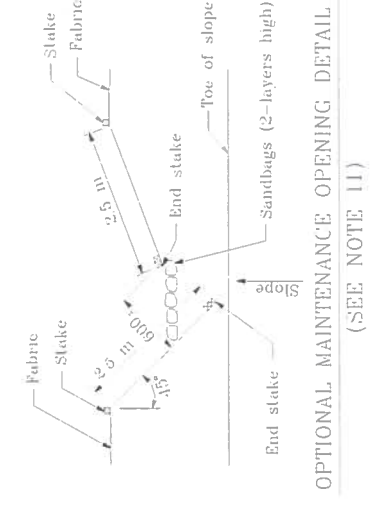
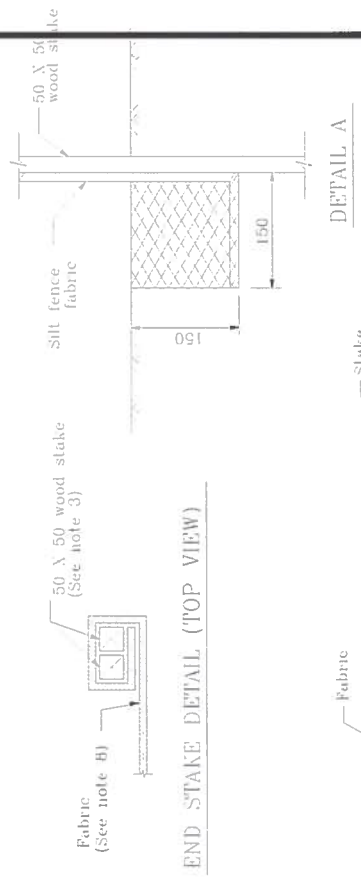
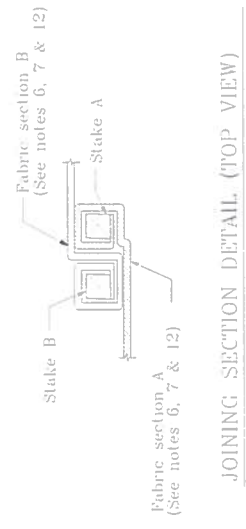
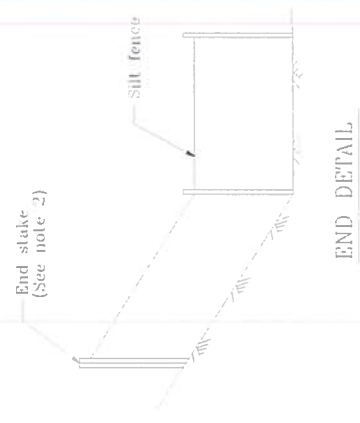
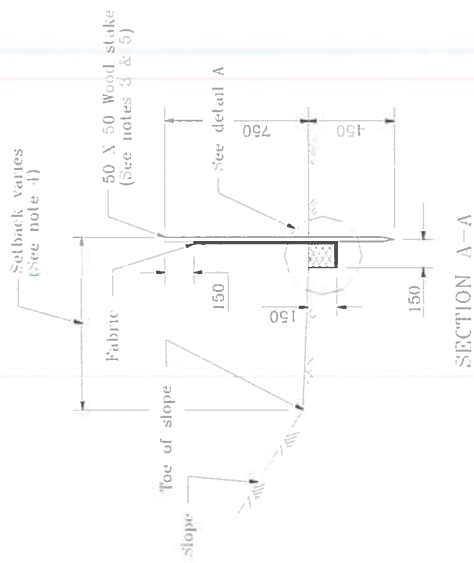
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY LINEAR SEDIMENT BARRIER 'TYPE SILT FENCE'

NO SCALE

ALL DIMENSIONS ARE IN
MILLIMETERS UNLESS OTHERWISE SHOWN

Silt Fence



Fiber Rolls



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose

A fiber roll consists of wood excelsior, rice or wheat straw, or coconut fibers that is rolled or bound into a tight tubular roll and placed on the toe and face of slopes to intercept runoff, reduce its flow velocity, release the runoff as sheet flow and provide removal of sediment from the runoff. Fiber rolls may also be used for inlet protection and as check dams under certain situations.

Appropriate Applications

- This BMP may be implemented on a project-by-project basis with other BMPs when determined necessary and feasible by the PE.
- Along the toe, top, face, and at grade breaks of exposed and erodible slopes to shorten slope length and spread runoff as sheet flow.
- Below the toe of exposed and erodible slopes.
- Fiber rolls may be used as check dams in unlined ditches if approved by the Project Engineer.
- Fiber rolls may be used for drain inlet protection if approved by the PE.
- Down-slope of exposed soil areas.
- Around temporary stockpiles.
- Along the perimeter of a project.

Fiber Rolls

- Limitations**
- Runoff and erosion may occur if fiber roll is not adequately trenched in.
 - Fiber rolls at the toe of slopes greater than 1:5 may require the use of 500 mm (20" diameter) or installations achieving the same protection (i.e., stacked smaller diameter fiber rolls, etc.).
 - Fiber rolls may be used for drainage inlet protection if they can be properly anchored.
 - Difficult to move once saturated.
 - Fiber rolls could be transported by high flows if not properly staked and trenched in.
 - Fiber rolls have limited sediment capture zone.
 - Do not use fiber rolls on slopes subject to creep, slumping, or landslide.

Standards and Specifications

Fiber Roll Materials

- Fiber rolls shall be either:
 - (1) Prefabricated rolls.
 - (2) Rolled tubes of erosion control blanket.

Assembly of Field Rolled Fiber Roll

- Roll length of erosion control blanket into a tube of minimum 200 mm (8 in) diameter.
- Bind roll at each end and every 1.2 m (4 ft) along length of roll with jute-type twine.

Installation

- Slope inclination of 1:4 or flatter: fiber rolls shall be placed on slopes 6.0 m apart.
- Slope inclination of 1:4 to 1:2: fiber rolls shall be placed on slopes 4.5 m apart.
- Slope inclination 1:2 or greater: fiber rolls shall be placed on slopes 3.0 m apart.
- Stake fiber rolls into a 50 to 100 mm (2 to 4 in) trench.

Fiber Rolls

- Drive stakes at the end of each fiber roll and spaced 600 mm (2 ft) apart if Type 2 installation is used (refer to Page 4). Otherwise, space stakes 1.2 m (4 ft) maximum on center if installed as shown on Pages 5 and 6.
- Use wood stakes with a nominal classification of 19 by 19 mm (3/4 by 3/4 in), and minimum length of 600 mm (24 in).
- If more than one fiber roll is placed in a row, the rolls shall be overlapped; not abutted.

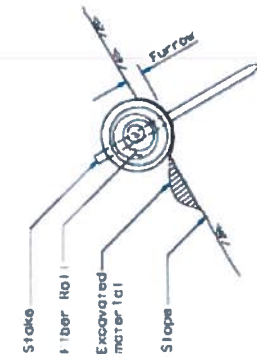
Removal

- Fiber rolls are typically left in place.
- If fiber rolls are removed, collect and dispose of sediment accumulation, and fill and compact holes, trenches, depressions or any other ground disturbance to blend with adjacent ground.

Maintenance and Inspection

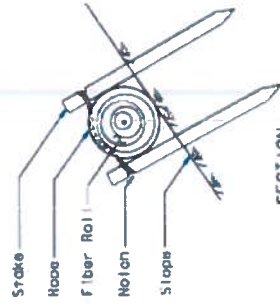
- Repair or replace split, torn, unraveling, or slumping fiber rolls.
- Inspect fiber rolls when rain is forecast. Perform maintenance as needed or as required by the PE.
- Inspect fiber rolls following rainfall events and at least daily during prolonged rainfall. Perform maintenance as needed or as required by the PE.
- Maintain fiber rolls to provide an adequate sediment holding capacity. Sediment shall be removed when the sediment accumulation reaches three quarters (3/4) of the barrier height. Removed sediment shall be incorporated in the project at locations designated by the PE or disposed of outside the highway right-of-way in conformance with the Standard Specifications.

Fiber Rolls



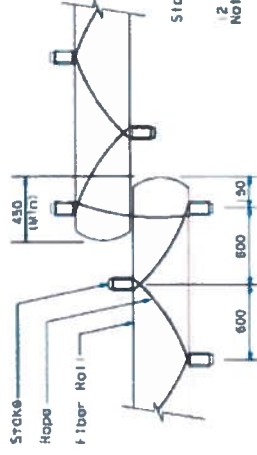
SECTION

TEMPORARY FIBER ROLL
(TYPE 1)



SECTION

TEMPORARY FIBER ROLL
(TYPE 2)



PLAN

TEMPORARY FIBER ROLL
(TYPE 2)

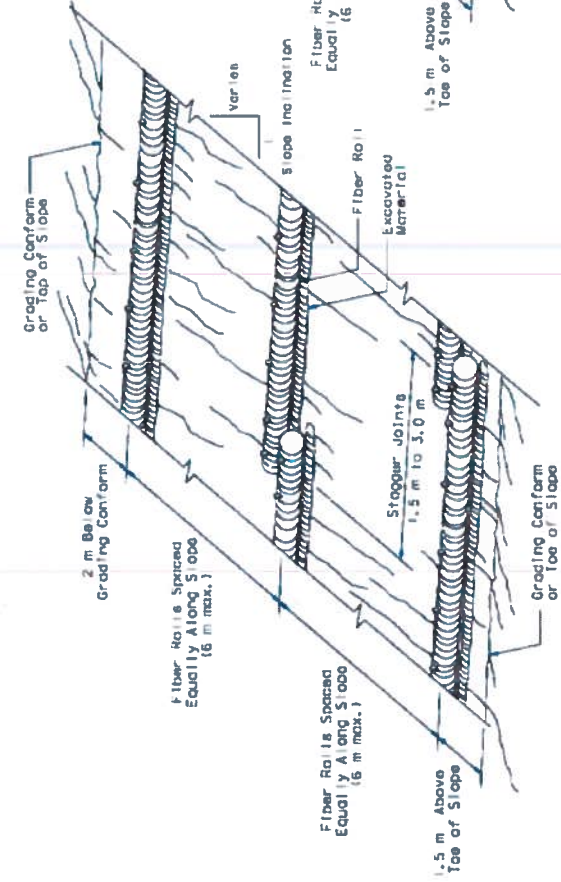


ELEVATION

TEMPORARY FIBER ROLL
(TYPE 2)

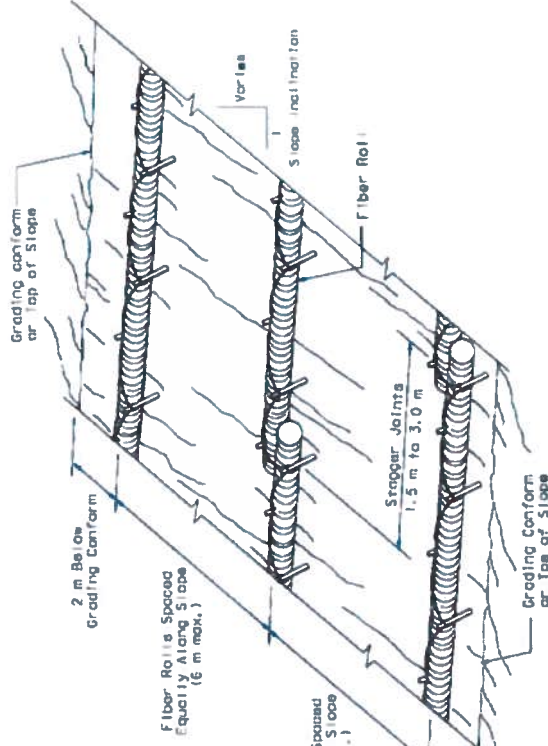
NOTE

1. Temporary fiber roll spacing varies depending upon slope inclination.



PERSPECTIVE

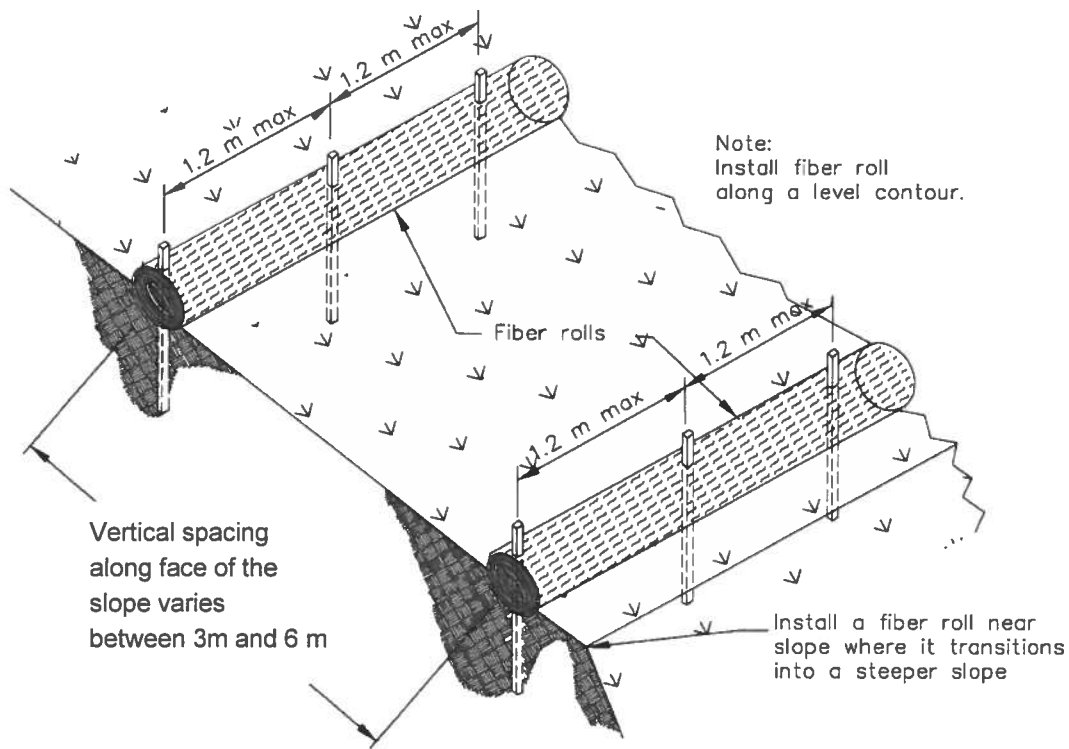
TEMPORARY FIBER ROLL (TYPE 1)



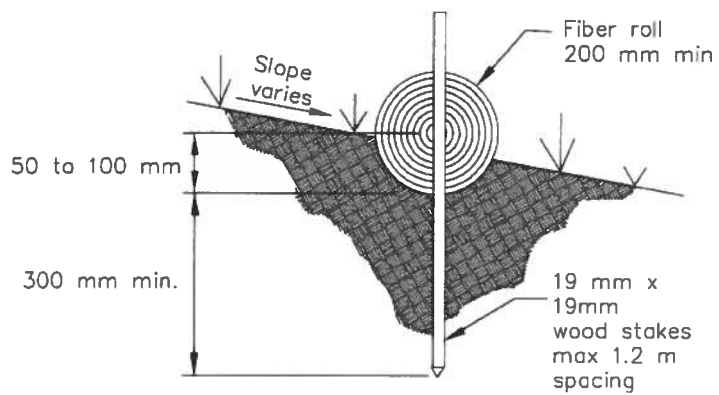
PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 2)

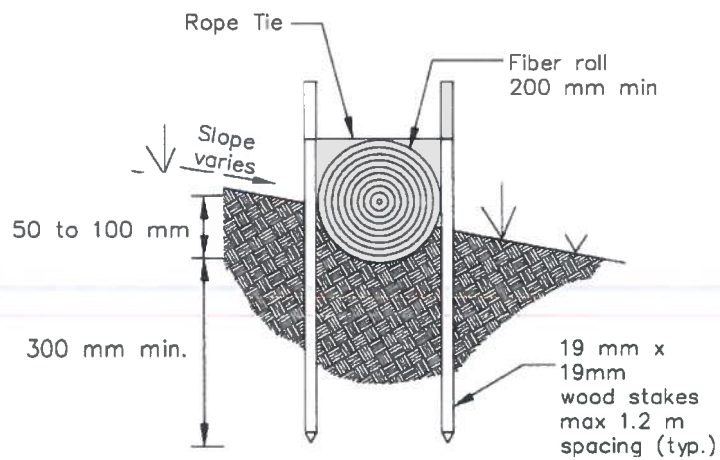
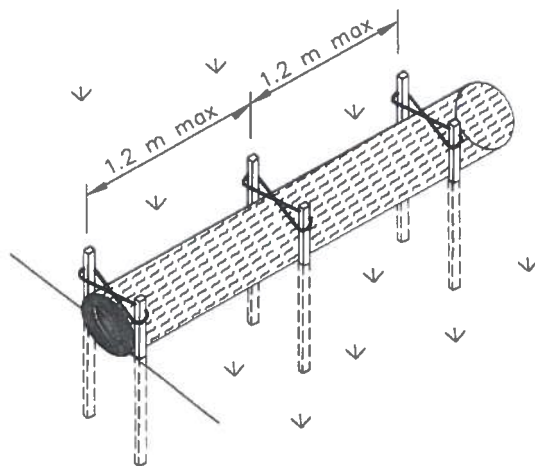
Fiber Rolls



TYPICAL FIBER ROLL INSTALLATION
N.T.S.



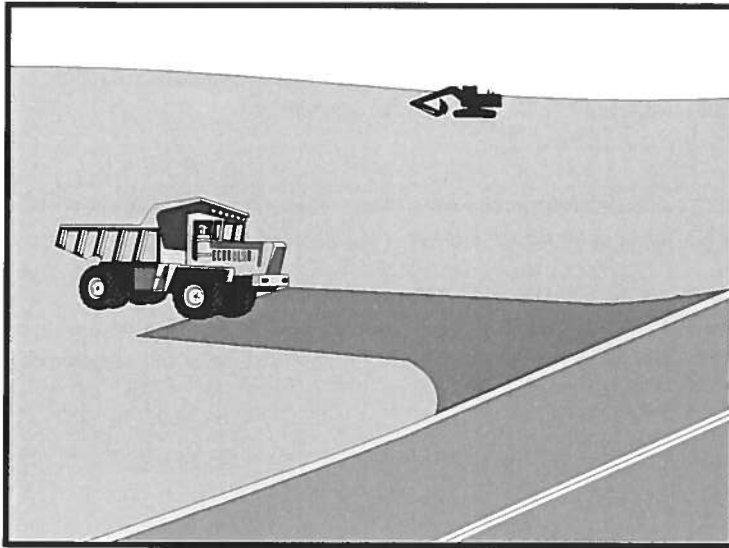
ENTRENCHMENT DETAIL
N.T.S.



OPTIONAL ENTRENCHMENT DETAIL

N.T.S.

Stabilized Construction Entrance/Exit



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose

A stabilized construction access is defined by a point of entrance/exit to a construction site that is stabilized to reduce the tracking of mud and dirt onto public roads by construction vehicles.

Appropriate Applications

- Use at construction sites:
 - Where dirt or mud can be tracked onto public roads.
 - Adjacent to water bodies.
 - Where poor soils are encountered.
 - Where dust is a problem during dry weather conditions.
- This BMP may be implemented on a project-by-project basis in addition to other BMPs when determined necessary and feasible by the Project Engineer (PE).

Limitations

- Site conditions will dictate design and need.

Standards and Specifications

- Limit the points of entrance/exit to the construction site.
- Limit speed of vehicles to control dust.
- Properly grade each construction entrance/exit to prevent runoff from leaving the construction site.
- Route runoff from stabilized entrances/exits through a sediment-trapping device before discharge.
- Design stabilized entrance/exit to support the heaviest vehicles and equipment that will use it.

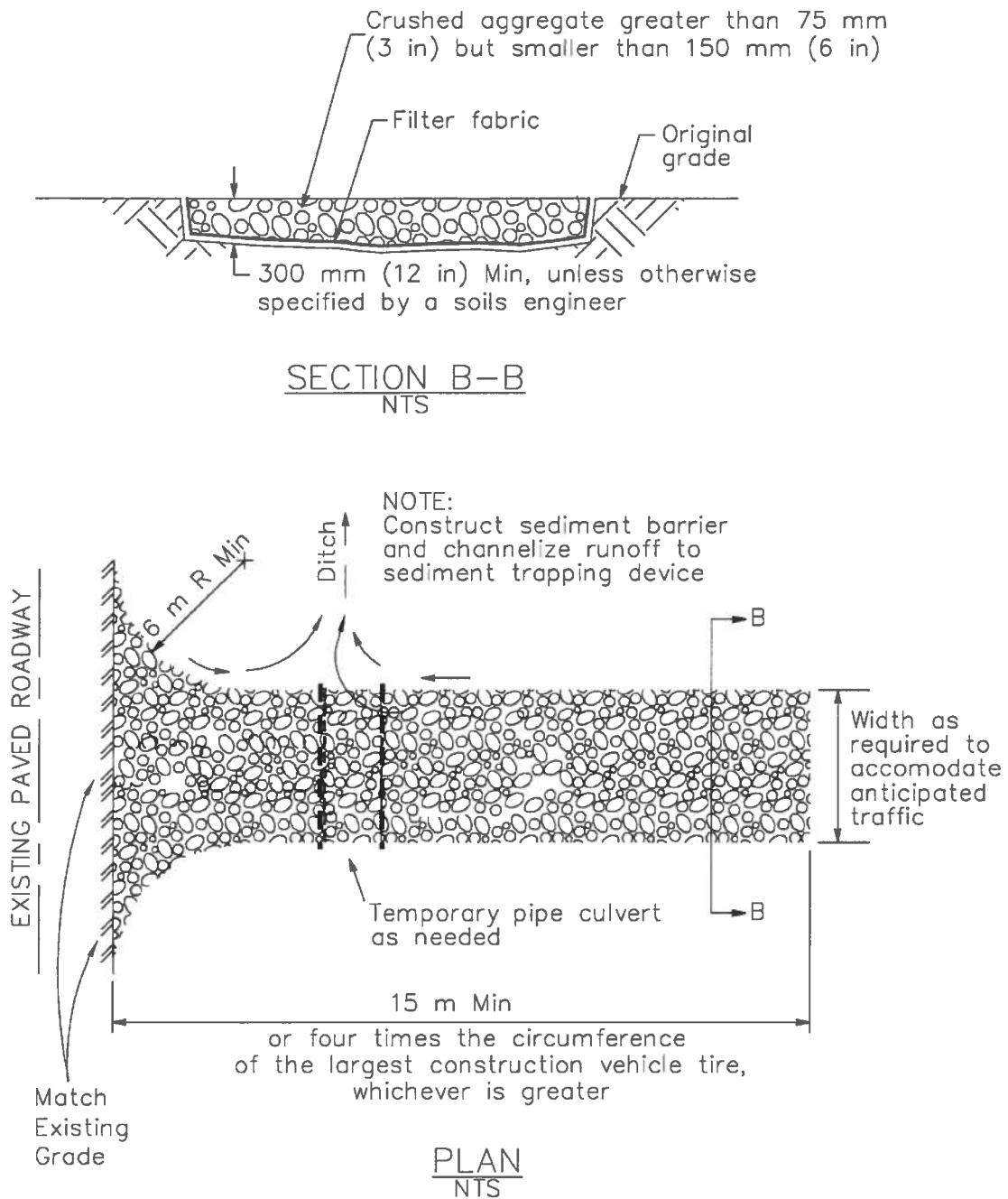
Stabilized Construction Entrance/Exit

- Select construction access stabilization (aggregate, asphaltic concrete, concrete) based on longevity, required performance, and site conditions. The use of asphalt concrete (AC) grindings for stabilized construction access/roadway is not allowed.
- Use of constructed/manufactured steel plates with ribs for entrance/exit access is allowed with written approval from the PE.
- If aggregate is selected, place crushed aggregate over geotextile fabric to at least 300 mm (12 in) depth, or place aggregate to a depth recommended by the RE. Crushed aggregate greater than 75 mm (3 inches) and smaller than 150 mm (6 inches) shall be used.
- Designate combination or single purpose entrances and exits to the construction site.
- Require all employees, subcontractors, and suppliers to utilize the stabilized construction access.
- All exit locations intended to be used continuously and for a period of time shall have stabilized construction entrance/exit BMPs

Maintenance and Inspection

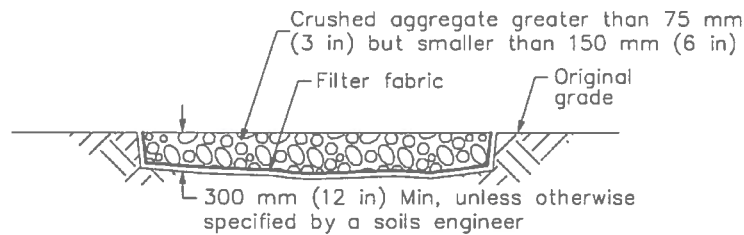
- Inspect routinely for damage and assess effectiveness of the BMP. Remove aggregate, separate and dispose of sediment if construction entrance/exit is clogged with sediment or as directed by the PE.
- Keep all temporary roadway ditches clear.
- Inspect for damage and repair as needed.

Stabilized Construction Entrance/Exit

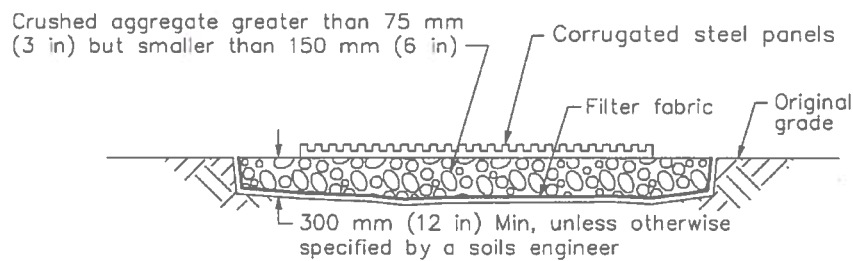


Stabilized Construction Entrance/Exit (Type 1)

Stabilized Construction Entrance/Exit

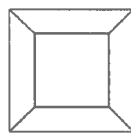


SECTION B-B
NTS

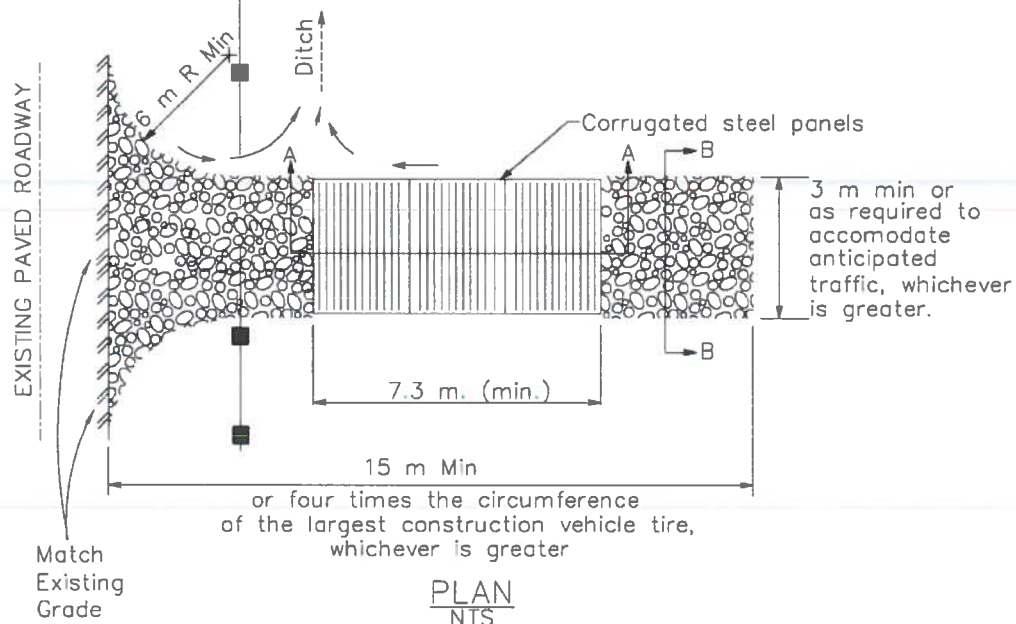


SECTION A-A
NOT TO SCALE

NOTE:
Construct sediment barrier
and channelize runoff to
sediment trapping device

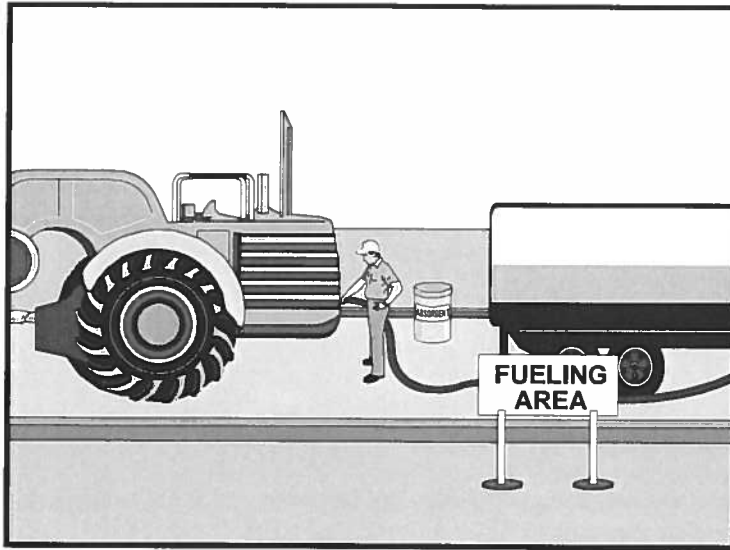


Sediment trapping
device



Stabilized Construction Entrance/Exit (Type 2)

Vehicle and Equipment Fueling



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose Vehicle and equipment fueling procedures and practices are designed to minimize or eliminate the discharge of fuel spills and leaks into storm drain systems or to watercourses.

Appropriate Applications These procedures are applied on all construction sites where vehicle and equipment fueling takes place.

Limitations ■ Onsite vehicle and equipment fueling shall only be used where it's impractical to send vehicles and equipment off-site for fueling.

Standards and Specifications

- When fueling must occur onsite, the contractor shall select and designate an area to be used, subject to approval of the Project Engineer (PE).
- Absorbent spill clean-up materials and spill kits shall be available in fueling areas and on fueling trucks and shall be disposed of properly after use.
- Drip pans or absorbent pads shall be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area.
- Dedicated fueling areas shall be protected from storm water run-on and runoff, and shall be located at least 15 m (50 ft) from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
- Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut-off to control drips. Fueling operations shall not be left unattended.
- Protect fueling areas with berms and/or dikes to prevent run-on, runoff, and to contain spills.

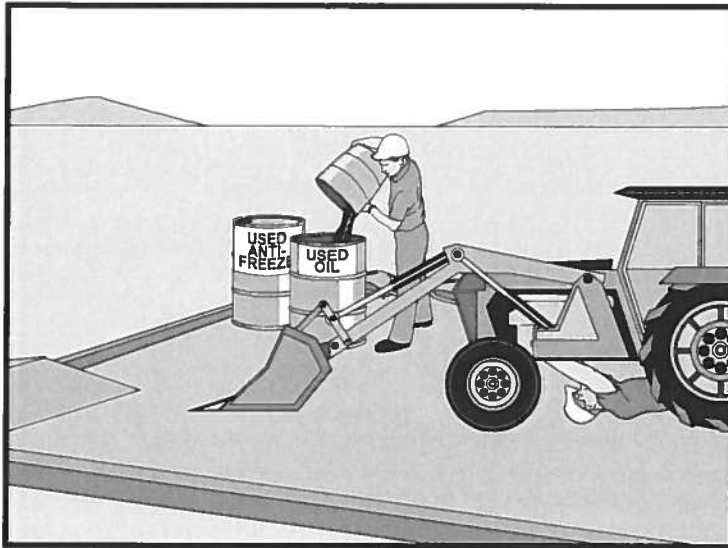
Vehicle and Equipment Fueling

- Use vapor recovery nozzles to help control drips as well as air pollution where required by Air Quality Management Districts (AQMD). Ensure the nozzle is secured upright when not in use.
- Fuel tanks shall not be "topped-off."
- Vehicles and equipment shall be inspected on each day of use for leaks. Leaks shall be repaired immediately or problem vehicles or equipment shall be removed from the project site.
- Absorbent spill clean-up materials shall be available in fueling and maintenance areas and used on small spills instead of hosing down or burying techniques. The spent absorbent material shall be removed promptly and disposed of properly.
- Federal, state, and local requirements shall be observed for any stationary above ground storage tanks. Refer to BMP Fact Sheets, "Material Delivery and Storage."
- Mobile fueling of construction equipment throughout the site shall be minimized. Whenever practical, equipment shall be transported to the designated fueling area.

Maintenance and Inspection

- Fueling areas and storage tanks shall be inspected regularly.
- Keep an ample supply of spill cleanup material on the site.
- Immediately cleanup spills and properly dispose of contaminated soil and cleanup materials.

Vehicle and Equipment Maintenance



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose Procedures and practices to minimize or eliminate the discharge of pollutants to the storm drain systems or to watercourses from vehicle and equipment maintenance procedures.

Appropriate Applications These procedures are applied on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles.

Limitations ■ None identified.

- Standards and Specifications**
- Drip pans or absorbent pads shall be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
 - All maintenance areas are required to have spill kits and/or use other spill protection devices.
 - Dedicated maintenance areas shall be protected from storm water run-on and runoff, and shall be located at least 15 m (50 ft) from downstream drainage facilities and watercourses.
 - Drip Pans or plastic sheeting shall be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than one hour.
 - Absorbent spill clean-up materials shall be available in maintenance areas and shall be disposed of properly after use. Substances used to coat asphalt transport trucks and asphalt-spreading equipment shall be non-toxic.
 - Use off-site maintenance facilities whenever practical.

Vehicle and Equipment Maintenance

- For long-term projects, consider constructing roofs or using portable tents over maintenance areas.
- Properly dispose of used oils, fluids, lubricants, and spill cleanup materials.
- Do not dump fuels and lubricants onto the ground.
- Do not place used oil in a dumpster or pour into a storm drain or watercourse.
- Properly dispose or recycle used batteries.
- Do not bury used tires.
- Repair of fluid and oil leaks immediately.
- Provide spill containment dikes or secondary containment around stored oil and chemical drums.

Maintenance and Inspection

- Maintain waste fluid containers in leak proof condition.
- Vehicle and equipment maintenance areas shall be inspected regularly.
- Vehicles and equipment shall be inspected on each day of use. Leaks shall be repaired immediately or the problem vehicle(s) or equipment shall be removed from the project site.
- Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.

Stockpile Management



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose

Stockpile management procedures and practices are designed to reduce or eliminate air and storm water pollution from stockpiles of soil, and paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate subbase or pre-mixed aggregate, asphalt binder (so called “cold mix” asphalt) and pressure treated wood.

Appropriate Applications

Implemented in all projects that stockpile soil and other materials.

Limitations

- None identified

Standards and Specifications

- Protection of stockpiles is a year-round requirement.
- Locate stockpiles a minimum of 15 m (50 ft) away from concentrated flows of storm water, drainage courses, and inlets.
- Implement wind erosion control practices as appropriate on all stockpiled material. For specific information see BMP Fact Sheet, “Wind Erosion Control.”
- Stockpiles of contaminated soil shall be managed in accordance with BMP Fact Sheet, “Contaminated Soil Management.”
- Bagged materials should be placed on pallets and under cover.

Protection of Non-Active Stockpiles

Non-active stockpiles of the identified materials shall be protected further as follows:

Stockpile Management

- ***Soil stockpiles:***

- During the rainy seasons, soil stockpiles shall be covered or protected with soil stabilization measures and a temporary perimeter sediment barrier at all times.
- During the non-rainy season, soil stockpiles shall be covered and protected with a temporary perimeter sediment barrier prior to the onset of precipitation.

- ***Stockpiles of portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, or aggregate subbase:***

- During the rainy season, the stockpiles shall be covered or protected with a temporary perimeter sediment barrier at all times.
- During the non-rainy season, the stockpiles shall be covered or protected with a temporary perimeter sediment barrier prior to the onset of precipitation.

- ***Stockpiles of “cold mix”:***

- During the rainy season, cold mix stockpiles shall be placed on and covered with plastic or comparable material at all times.
- During the non-rainy season, cold mix stockpiles shall be placed on and covered with plastic or comparable material prior to the onset of precipitation.

- ***Stockpiles/Storage of pressure treated wood with copper, chromium, and arsenic or ammonical, copper, zinc, and arsenate:***

- During the rainy season, treated wood shall be covered with plastic or comparable material at all times.
- During the non-rainy season, treated wood shall be covered with plastic or comparable material and shall be placed on pallets prior to the onset of precipitation.

Protection of Active Stockpiles

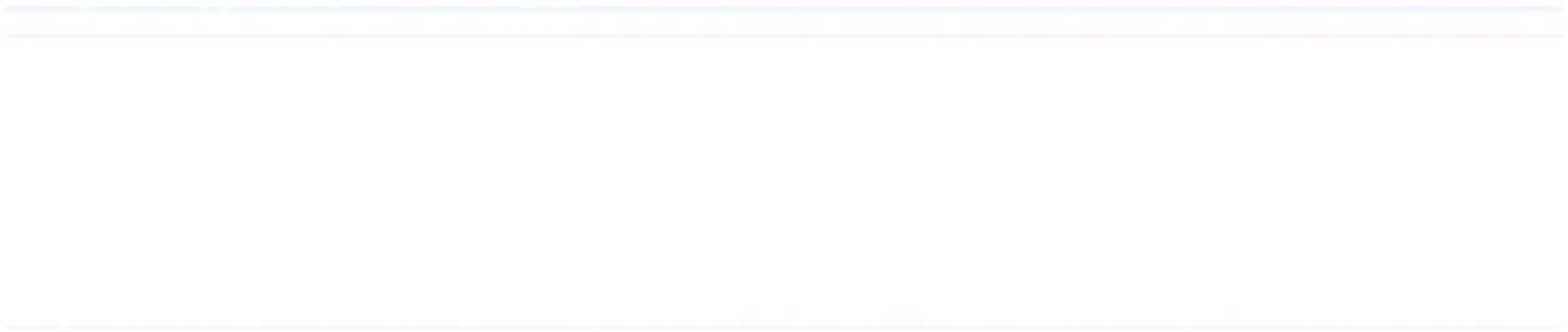
Active stockpiles of the identified materials shall be protected further as follows:

- All stockpiles shall be covered, stabilized, or protected with a temporary linear sediment barrier prior to the onset of precipitation.
- Stockpiles of “cold mix” shall be placed on and covered with plastic or comparable material prior to the onset of precipitation.

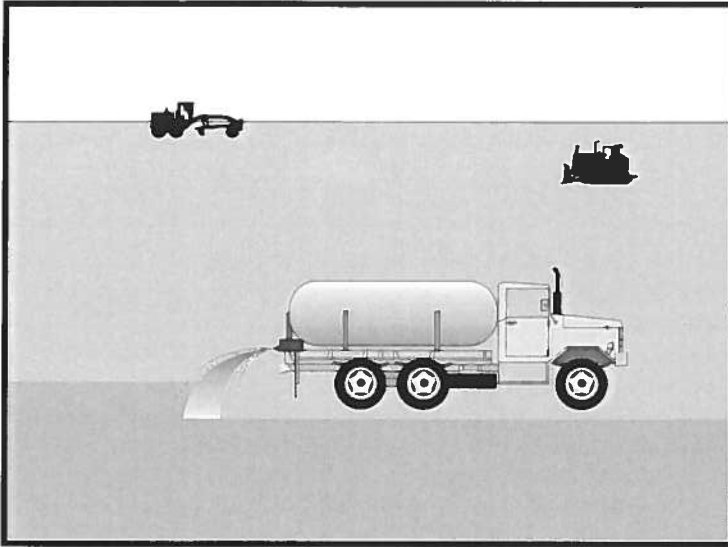
Stockpile Management

Maintenance and Inspections

- Repair and/or replace perimeter controls and covers as needed, or as directed by the RE, to keep them functioning properly. Sediment shall be removed when sediment accumulation reaches one-third ($1/3$) of the barrier height.



Wind Erosion Control



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose

Wind erosion control consists of applying water and/or other dust palliatives as necessary to prevent or alleviate erosion by the forces of wind. Dust control shall be applied in accordance with Caltrans standard practices. Covering of small stockpiles or areas is an alternative to applying water or other dust palliatives.

Appropriate Applications Limitations

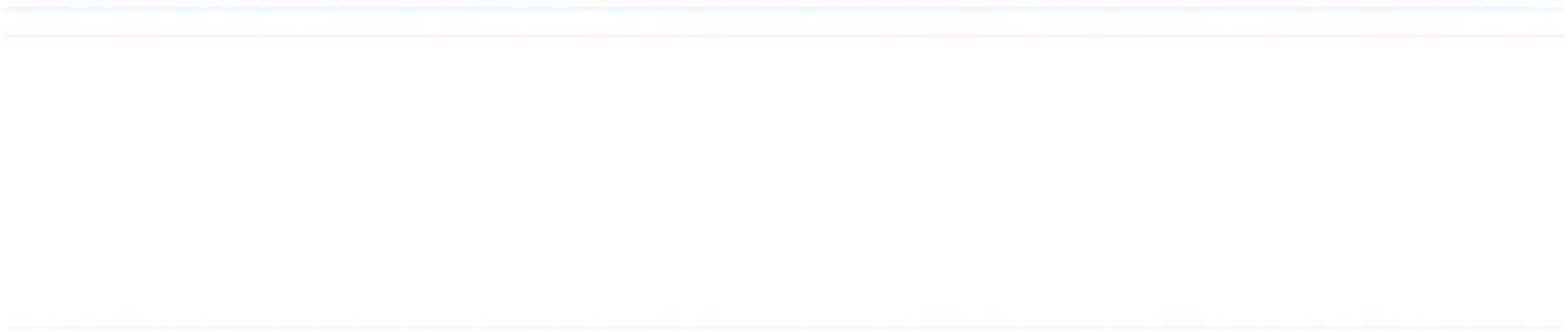
- This practice is implemented on all exposed soils subject to wind erosion.
- Effectiveness depends on soil, temperature, humidity and wind velocity.

Standards and Specifications

- Water shall be applied by means of pressure-type distributors or pipelines equipped with a spray system or hoses and nozzles that will ensure even distribution.
- All distribution equipment shall be equipped with a positive means of shutoff.
- Unless water is applied by means of pipelines, at least one mobile unit shall be available at all times to apply water or dust palliative to the project.
- Materials applied as temporary soil stabilizers and soil binders will also provide wind erosion control benefits.

Maintenance and Inspection

- Check areas that have been protected to ensure coverage.



Contaminated Soil Management



BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose These are procedures and practices to minimize or eliminate the discharges of pollutants to the drainage system or to watercourses from contaminated soil.

- Appropriate Applications**
- Contaminated soil management is implemented on construction projects in highly urbanized or industrial areas where soil contamination may have occurred due to spills, illicit discharges, and leaks from underground storage tanks.
 - It may also apply to highway widening projects in older areas where median and shoulder soils may have been contaminated by aerially deposited lead (ADL).

- Limitations**
- The procedures and practices presented in this best management practice (BMP) are general. The contractor shall identify appropriate practices and procedures for the specific contaminants known to exist or discovered on site.

Standards and Specifications ***Identifying Contaminated Areas***

- Contaminated soils are often identified during project planning and development with known locations identified in the plans and specifications. The contractor shall review applicable reports and investigate appropriate call-outs in the plans and specifications.
- The contractor may further identify contaminated soils by investigating:
 - Past site uses and activities.
 - Detected or undetected spills and leaks.
 - Acid or alkaline solutions from exposed soil or rock formations high in acid or alkaline forming elements.

Contaminated Soil Management

- Look for contaminated soil as evidenced by discoloration, odors, differences in soil properties, abandoned underground tanks or pipes, or buried debris. Test suspected soils at a certified laboratory.

Education

- Prior to performing any excavation work at the locations containing material classified as hazardous, employees and subcontractors shall complete a safety training program which meets 29 CFR 1910.120 covering the potential hazards as identified.
- Educate employees and subcontractors in identification of contaminated soil and on contaminated soil handling and disposal procedures.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).

Handling Procedures for Material with Aerially Deposited Lead (ADL)

- Materials from areas designated as containing (ADL) may, if allowed by the contract special provisions, be excavated, transported, and used in the construction of embankments and/or backfill.
- Excavation, transportation, and placement operations shall result in no visible dust.
- Use caution to prevent spillage of lead containing material during transport.
- Monitor the air quality during excavation of soils contaminated with lead.

Handling Procedures for Contaminated Soils

- To minimize on-site storage, contaminated soil shall be disposed of properly in accordance with all applicable regulations. CCR, Sections 6626.250 to
- Test suspected soils at a DHS approved certified laboratory.
- If the soil is contaminated, work with the local regulatory agencies to develop options for treatment and/or disposal.
- Avoid temporary stockpiling of contaminated soils or hazardous material.
- If temporary stockpiling is necessary:
 - (1) Cover the stockpile with plastic sheeting or tarps.
 - (2) Install a berm around the stockpile to prevent runoff from leaving the area.
 - (3) Do not stockpile in or near storm drains or watercourses.

Contaminated Soil Management

- Contaminated material and hazardous material on exteriors of transport vehicles shall be removed and placed either into the current transport vehicle or the excavation prior to the vehicle leaving the exclusion zone.
- Monitor the air quality continuously during excavation operations at all locations containing hazardous material.
- Procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work, including registration for transporting vehicles carrying the contaminated material and the hazardous material.
- Collect water from decontamination procedures and treat and/or dispose of it at an appropriate disposal site.
- Collect non-reusable protective equipment, once used by any personnel, and dispose of at an appropriate disposal site.
- Install temporary security fence to surround and secure the exclusion zone. Remove fencing when no longer needed.
- Excavation, transport, and disposal of contaminated material and hazardous material shall be in accordance with the rules and regulations of the following agencies (the specifications of these agencies supersede the procedures outlined in this BMP):
 - United States Department of Transportation (USDOT).
 - United States Environmental Protection Agency (USEPA).
 - Mississippi Environmental Protection Agency (CAL-EPA).
 - Occupational Safety and Health Administration (OSHA).
 - Local regulatory agencies.

Procedures for Underground Storage Tank Removals

- Prior to commencing tank removal operations, obtain the required underground storage tank removal permits and approval from the federal, state, and local agencies, which have jurisdiction over such work.
- Arrange to have tested, as directed by the Project Engineer (PE), any liquid or sludge found in the underground tank prior to its removal to determine if it contains hazardous substances.
- Following the tank removal, take soil samples beneath the excavated tank and perform analysis as required by the local agency representative(s).

Contaminated Soil Management

- The underground storage tank, any liquid and/or sludge found within the tank, and all contaminated substances and hazardous substances removed during the tank removal shall be transported to disposal facilities permitted to accept such waste.

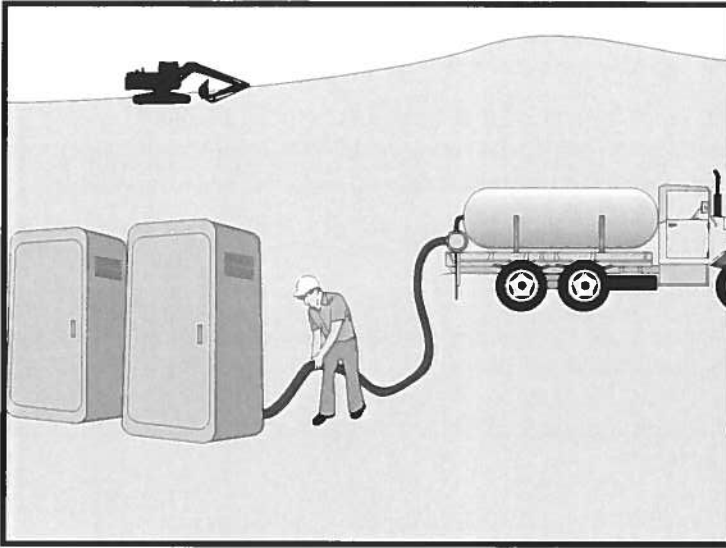
Water Control

- Take all necessary precautions and preventive measures to prevent the flow of water, including ground water, from mixing with hazardous substances or underground storage tank excavations. Such preventative measures may consist of, but are not limited to: berms, cofferdams, grout curtains, freeze walls, and seal course concrete or any combination thereof.

Maintenance and Inspection

- The Contractor's Water Pollution Control Manager, foreman, and/or construction supervisor shall monitor on-site contaminated soil storage and disposal procedures.
- Monitor air quality continuously during excavation operations at all locations containing hazardous material.
- Coordinate contaminated soils and hazardous substances/waste management with the appropriate federal, state, and local agencies.
- Inspect hazardous waste receptacles and areas regularly.

Sanitary/Septic Waste Management



Definition and Purpose Procedures and practices to minimize or eliminate the discharge of construction site sanitary/septic waste materials to the storm drain system or to watercourses.

Appropriate Applications Sanitary/septic waste management practices are implemented on all construction sites that use temporary or portable sanitary/septic waste systems.

Limitations ■ None identified.

Standards and Specifications ***Education***

- Educate employees, subcontractors, and suppliers on sanitary/septic waste storage and disposal procedures.
- Educate employees, subcontractors, and suppliers of potential dangers to humans and the environment from sanitary/septic wastes.
- Instruct employees, subcontractors, and suppliers in identification of sanitary/septic waste.
- Hold regular meetings to discuss and reinforce disposal procedures (incorporate into regular safety meetings).
- Establish a continuing education program to indoctrinate new employees.

Storage and Disposal Procedures

- Temporary sanitary facilities shall be located away from drainage facilities, watercourses, and from traffic circulation. When subjected to high winds or risk.

- Wastewater shall not be discharged or buried within the highway right-of-way.
 - Sanitary and septic systems that discharge directly into sanitary sewer systems, where permissible, shall comply with the local health agency, city, county, and sewer district requirements.
 - If using an on site disposal system, such as a septic system, comply with local health agency requirements.
 - Properly connect temporary sanitary facilities that discharge to the sanitary sewer system to avoid illicit discharges.
 - Ensure that sanitary/septic facilities are maintained in good working order by a licensed service.
 - Use only reputable, licensed sanitary/septic waste haulers.
- Maintenance and Inspection**
- The Contractor's Water Pollution Control Manager (WPCM) shall monitor onsite sanitary/septic waste storage and disposal procedures at least weekly.