5. Receiving State Water(s) Information (see Guidelines for CWB-NOI Form G - Note 5)

a. Receiving State Water Name: THERE WILL BE NO DISCHARGE TO STATE WATERS.

Discharge Point Coordinates into the Receiving State Water:

Latitude: N/A ° ' " N Longitude: N/A ° ' " W

Classification: (check the appropriate space(s))

Inland: Class 1 _____ Class 2 _____ Estuary _____

Marine: Class AA _____ Class A _____ Embayment _____

b. Are there additional discharge points into receiving State waters?

No X Yes _____ If yes, provide the information requested in Item 5.a. on a separate sheet.

c. Does the discharge initially enter a separate storm water drainage system?

No X Yes _____ If yes, provide the following information. Attach a separate sheet with the requested information if there is more than one (1) discharge point into the separate storm water drainage system.

(NOI C & F WERE SUBMITTED FOR HYDROTESTING AND STORM WATER)

i. Drainage System Owner's name: N/A

Notice of Intent Form G Common Errors (Continued)

- Item 13.d. – Time frame of the proposed discharges
  - Describe the time frame of when the proposed discharges will take place during the work day (work hours, overnight, 24 hours a day, etc.)

Notice of Intent Form G Common Errors (Continued)

- Item 19.a.ii. – Treatment design
  - Again, this coverage is for **discharges**. Therefore, you need to describe how the discharge will enter State waters
  - Detailed descriptions of the treatment method, usually filtration systems
  - Detailed drawings of the system

Notice of Intent Form G Common Errors (Continued)

- Item 19.a.iv. – Calculations used in the treatment design
  - Provide calculations used in **both**, estimating the dewatering flow rate and the adequacy of the treatment system.

Notice of Intent Form G Common Errors (Continued)

- Item 19.a.v. – Mitigative measures
  - Mitigitive measures shall include the **corrective** action to be taken (i.e., add filter tank, increase sediment basin or tank volume, reduce flow quantity, etc.) when and if the construction dewatering effluent does not meet the conditions of the General Permit, basic and specific water quality criteria.

Notice of Intent Form G Common Errors (Continued)

- Item 20.a.ii(5) – Sediment handling and disposal plan
  - Describe the handling (storage and transport) and disposal of both the sediment collected in the treatment system **and** the excavated material.

Notice of Intent Form G Common Errors (Continued)

- Site-specific Plans
  - All site-specific plans shall be in accordance with how the contractor will conduct the operation, with details of location, dimensions, and procedures.

Notice of Intent
Form H
For
General Permit Coverage Authorizing Discharges of Treated Process Wastewater Associated With Petroleum Bulk Terminal Facilities

Notice of Intent
Form I
For
General Permit Coverage Authorizing Discharges of Treated Process Wastewater Associated With Well Drilling Activities

Notice of Intent
Form J
For
General Permit Coverage Authorizing Occasional or Unintentional Discharges From Recycled Water System

Notice of Intent
Form K
For
General Permit Coverage Authorizing Discharges of Storm Water and Certain Non-Storm Water From Small Municipal Separate Storm Sewer System

Notice of Intent
Form L
For
General Permit Coverage Authorizing Discharges of Circulation Water From Decorative Ponds or Tanks

How to Obtain Latest NPDES Applications, Forms and Guidelines?

- Individual permit applications
- General Permit Notice of Intent Forms
- Available at Clean Water Branch website
- http://www.hawaii.gov/health/environmental/water/cleanwater/forms/index.html
- NEW! Individual permit application for construction activities is available

Best Management Practices (BMPs)

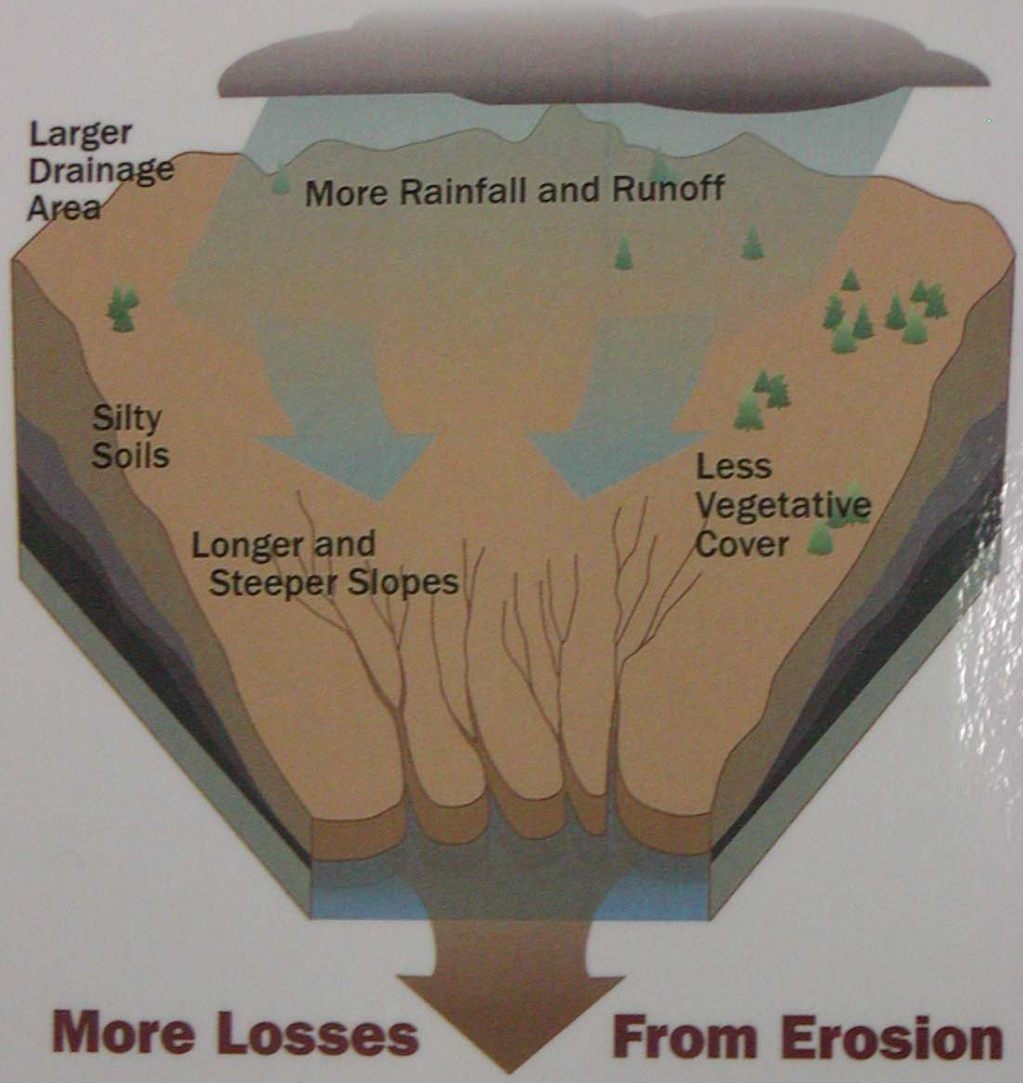
- Erosion controls
- Sediment controls

What contributes to erosion?

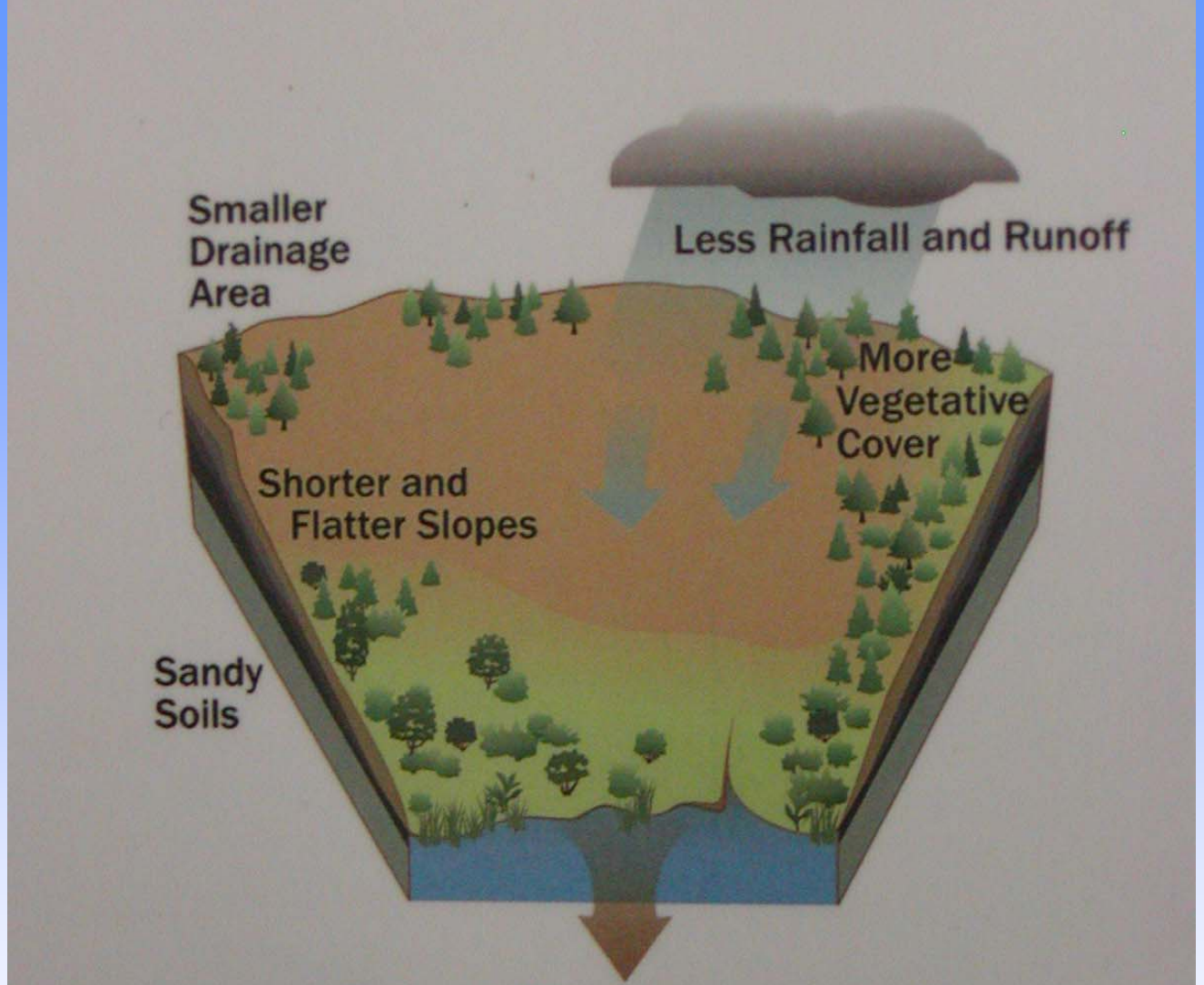
- Removing vegetation
- Removing topsoil and organic matter
- Reshaping the lay of the land
- Exposing subsoil to precipitation
- Failure to cover bare soil areas
- Allowing gullies to form and grow larger
- Removing vegetation along stream banks

What other factors affect erosion?

- Rainfall frequency and intensity
- Slope (steep = more; flat = less)
- Soil structure and type of soil (silty = more erosion)
- Vegetation (more vegetation = less erosion)



Factors influencing erosion. Heavy rainfall, steep slopes, removal of most existing vegetation, and erodible soils result in higher soil losses from erosion.



Less Erosion Loss

Lower rainfall amounts, flatter slopes, preserving existing vegetation, and less erodible soils result in lower soil losses from erosion.

Erosion Control

- Any practice that protects the soil surface and prevents the soil particle from being detached by rainfall or wind.
- Erosion control is a **source control**.

Sediment Control

- Any practice that traps the soil particles after they have been detached and moved by water or wind.
- Sediment control measures are usually **passive systems** that rely on filtering or settling the particles out of water or wind that is transporting them.

Which are more effective?

- Erosion controls are preferred
  - Keep the soil in place
  - Enhance the protection of the site resources
  - When possible, use erosion controls as the primary protection, with sediment controls as a secondary system
  - Important! It is not adequate to rely solely on sediment control measures to keep sediment from leaving a site during the rainy season

Erosion and sediment controls for muddy runoff:

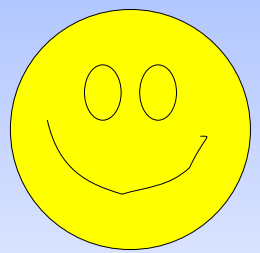
- Soak it in – maximize seeding and mulching
- Sift it out – use silt fences or other filters
- Slow it down – don’t let gullies form
- Spread it around – break up concentration flows
- Settle it out – use sediment traps and basins

What Makes a BMPs Plan Effective?

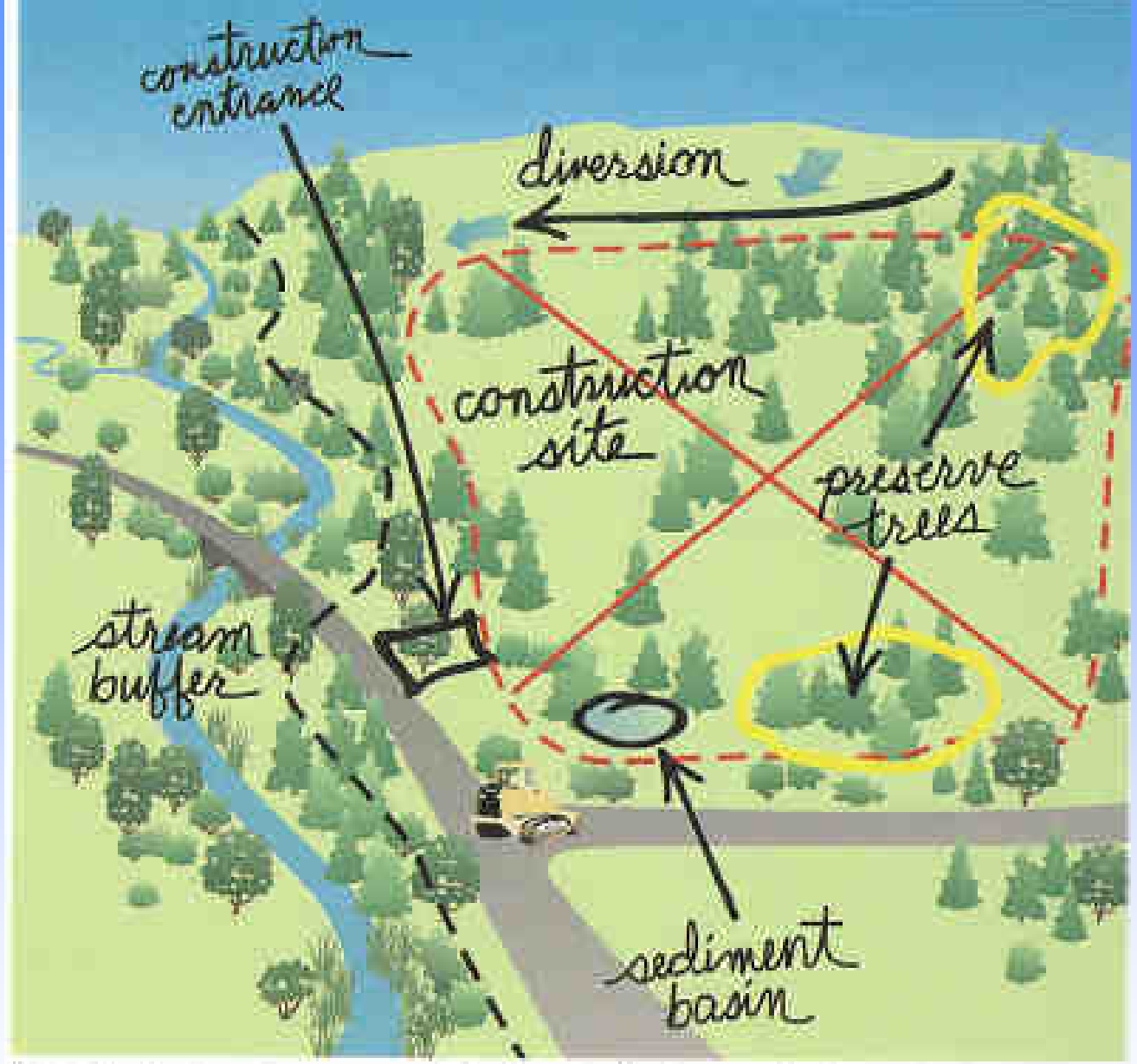
- For erosion and sediment control to be effective, it is important that provisions for both **temporary** and **permanent controls** be
  - **Specified appropriately**
  - **Installed correctly**
  - **Operated accordingly as designed**
- Once implemented, these controls need to be **maintained** and **repaired** to be effective.

III. Examples of

EFFECTIVE & INEFFECTIVE



Erosion Control and Best Management Practices



Identify drainage areas and drainage ditches and channels. Install diversions, grassed channels, sediment traps/basins, downslope sediment barriers, and rock construction entrance before beginning work.

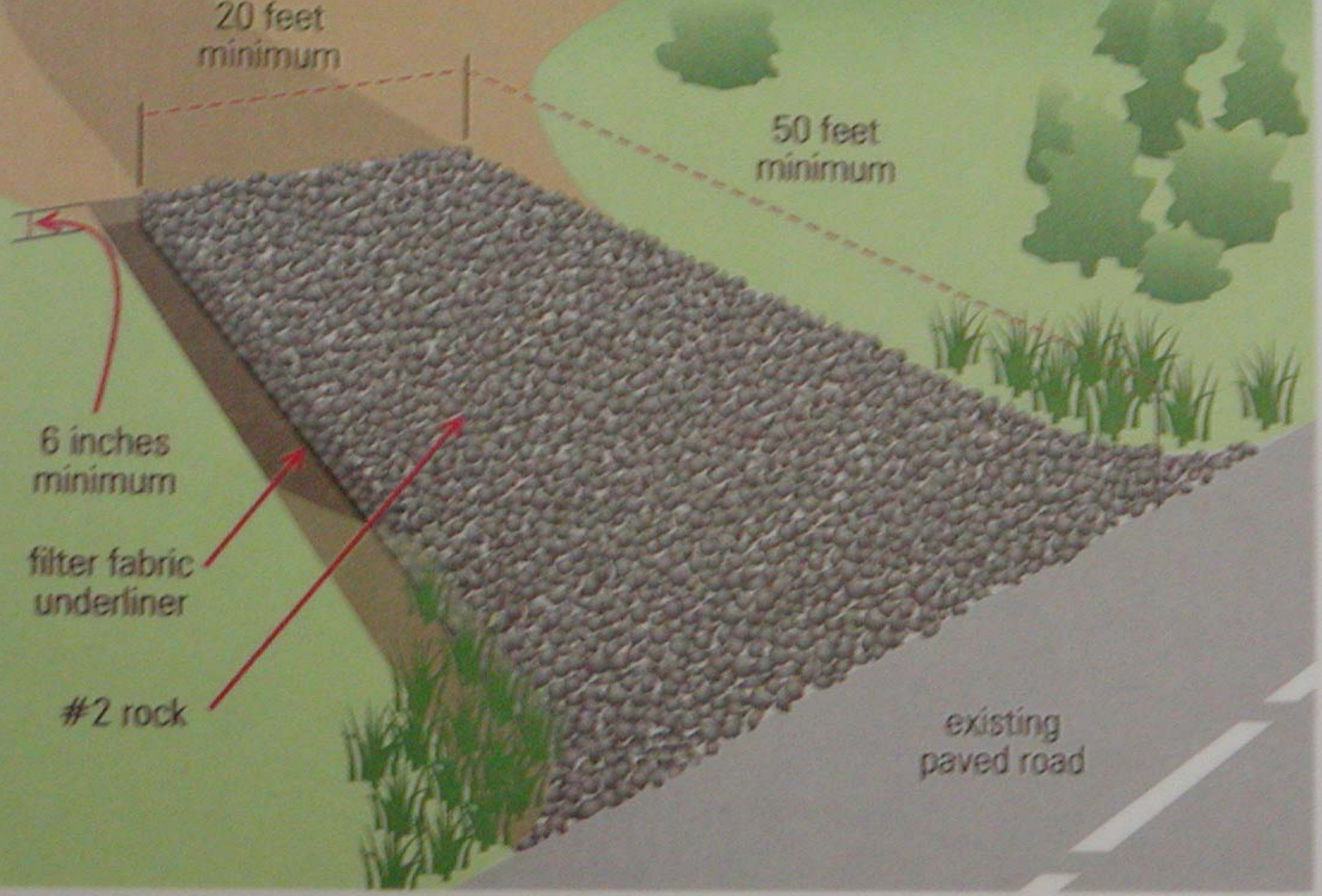
Limiting the amount of bare soil exposed to the weather by working in phases reduces erosion and sediment control expenses.

Preserving existing vegetation at the site makes the final development more attractive and saves money by reducing clearing, excavation, and erosion control expenses.

Erosion and sediment controls are required for all construction sites one acre or larger under new federal, state, and local regulations. Storm water pollution prevention plans (also called Best Management Practice Plans) must be written up before the project begins. Permit coverage is also required before clearing, grading, or other cut/fill activities start.

Storm water pollution prevention (BMP) plans and KPDES permit coverage are required for all construction sites one acre or larger under 2003 regulations. Plans must be kept on site and available for inspection.

Limiting the amount of bare soil exposed to the weather by working in phases reduces erosion and sediment control expenses.



onstruction entrance detail. Entrance/exit pad must keep mud from
racking onto paved roads.

Rock pad was installed properly with right sized rock, but lack of filter fabric underliner is causing rock to spread and sink into the soil. Note tracking of mud onto paved road. Mud tracked on roadways violates BMP standards, and is a potential legal liability.

Rock sizing, placement, and pad sizing are good, but sediment from unprotected slopes and ditches is washing onto paved highway. Serious liability issue.

Poor construction entrance. Rock pad is poorly constructed; rock is too small. Use filter fabric under rock and larger sized rock, such as #2. No mud should be tracked onto paved roads open for traffic.

Rock sizing and placement look OK for a residential site, and very little mud appears on the pavement. The pad is a little thin, however, and it looks like some drivers are not using it—note track marks near curb. Entire area needs seed and mulch.

Very good installation of multiple silt fences on long slope. Turn ends of fencing uphill to prevent bypass. Leave silt fences up until grass is well established on all areas of the slope. Re-seed bare areas as soon as possible. Remove or spread accumulated sediment and remove silt fence after all grass is up.

Poor installation where silt fences are joined. Roll end stakes together before driving in to create an unbroken sediment barrier or lap curved sections to prevent bypasses. Leaving grass strip between silt fence and bare soil area is a good idea.

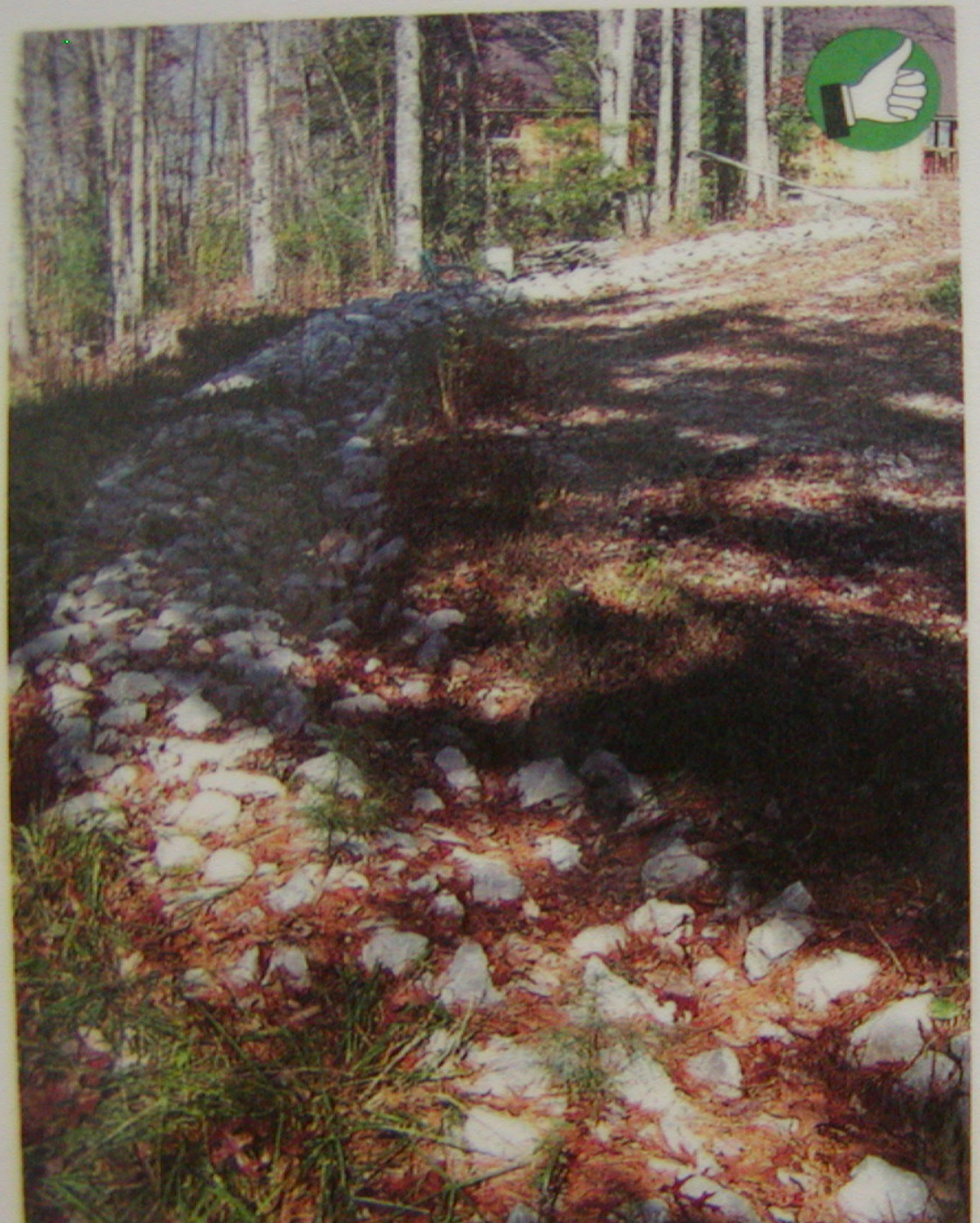
Sediment barrier installed backwards. Silt fence fabric should face bare soil area. Stakes go on downhill side. Straw bales can be used to back up fence on downhill side, but not alone.

Very poor attention to silt fence maintenance. Fences and other sediment controls must be inspected and repaired weekly; activities should be logged.

Poor installation of silt fencing, fair to good seeding. Silt fence must be trenched in along bottom. Straw bales are not approved as sediment barriers.

Providing primary and secondary containment for fuel and other hazardous materials at the work site helps prevent problems. Controlling non-storm water runoff, trash and other wastes, and post-construction runoff are also required under the new storm water permit program.

Good construction, seeding, and stabilization of diversion berm. Note that diversion ditch is lined with grass on flatter part of slope, and with rock on steeper part.



Good installation of rock-lined berm to divert rain runoff around residential construction site on steep slope near a river. Diversion ditches can be lined with grass if channel slopes are 20:1 or less, and with blankets or turf mats if they are steeper.

Erosion and sediment loss is virtually eliminated on seeded areas (left side). Rills and small gullies form quickly on unseeded slopes (right).

Poor seed establishment on slope. Use erosion control blankets or turf reinforcement mats when slopes are steep (greater than 4:1) and soil quality is poor. Terracing or benching steep slopes also helps.

Very good installation of erosion control blanket in seeded ditch below well-mulched slope on highway project.

Good application of erosion control blanket to stabilize shoulder and protect storm drain, but too few staples used along the top edge. Trench in top edge of blanket on steep slopes.

Good installation of silt fence at toe of slope. Do not pile soil or other material on silt fences! Also, if space is available move fence back from toe of slopes to allow room for sediment accumulation and maintenance. Leaving a strip of vegetation between bare soil and fence also improves performance.

Very poor slope protection. For best results, prepare soil and apply seed with mulch or blanket immediately after reaching final grade.

ery good design and installation of inlet protection ponding dam
sing concrete blocks and rock. Outlet pipe in background has a rock
pron to dissipate flows.

Good application of silt fence frame to protect inlet. Use wire fence backing to reinforce frame, or diagonal bracing across top of stakes. Make sure fence is trenched in to prevent bypasses or undercutting. Inspect and remove sediment as necessary after each rain.

Very good application of mixed rock for culvert inlet ponding dam. Mixing rock promotes better ponding, drainage, and settling of sediment.

Good placement and spacing of fiber-roll silt checks. Coconut fiber rolls and other commercial products can be used where ditch slopes do not exceed three percent.

oor application of commercial silt check product. Check dam needs to e longer (tied into banks). More are needed, at correct spacing for channel slope. Area needs to be re-seeded; ditch may need blanket liner.


ONLY


JCN 624
679
525 TNR

Cement wash water going to storm drain

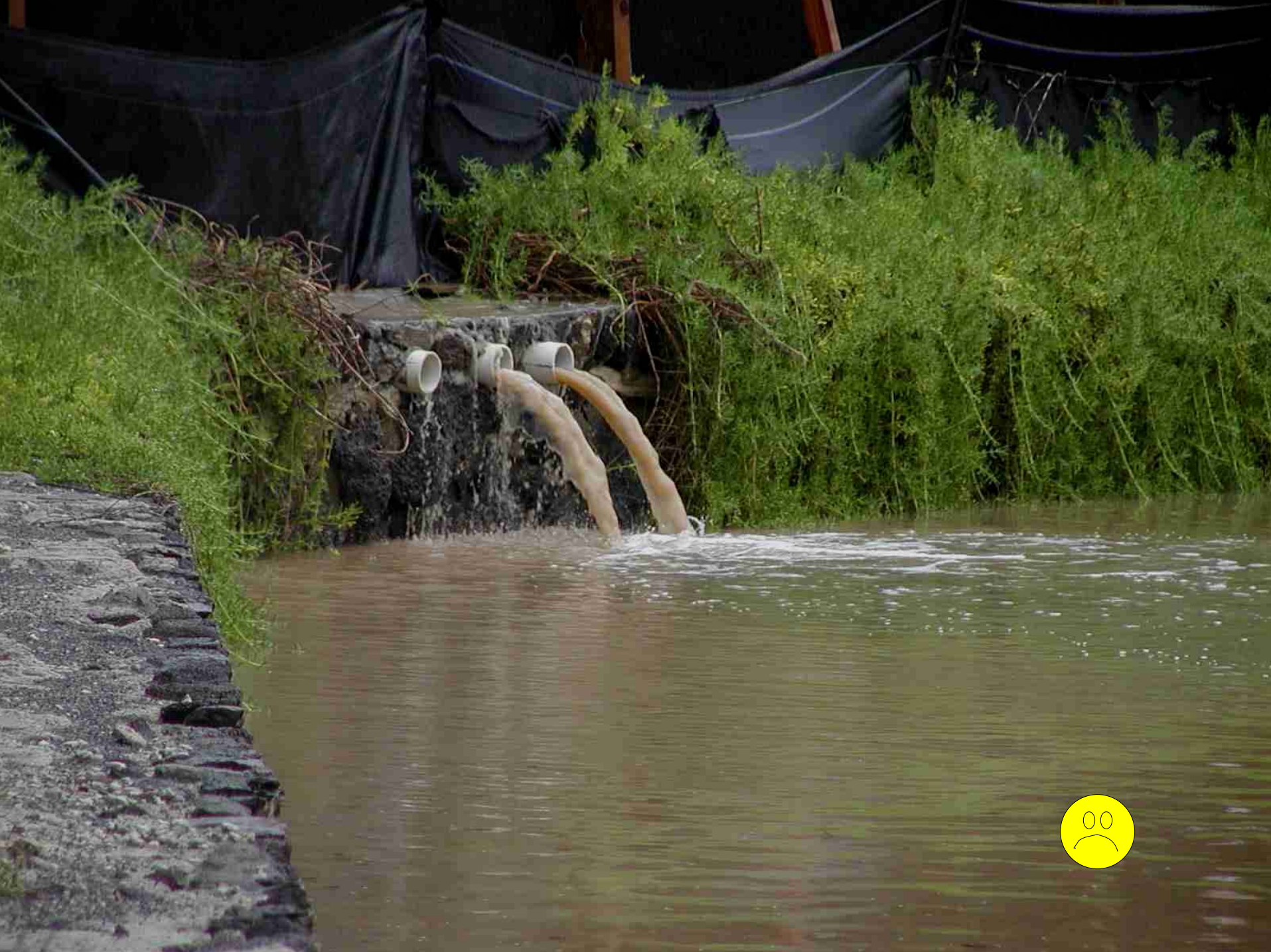
Cement wash water draining to State waters

Turbid plume caused by cement wash water


DICK PACIFIC
Air Power
26·43
CPS 180
FOUNDATION INTERNATIONAL INC.


non-functional silt fence


non-functional (unanchored) silt fence




Inadequate silt fence


BEFORE


BEFORE


BEFORE


Gravel filter for
outlet protection
AFTER


Gravel filter around outlet
AFTER

Poor placement and poor maintenance of stone bag inlet ponding dam. Accumulated sediment must be removed and dam should be repaired after each half-inch rain.


Inadequate inlet protection


Inadequate inlet protection

Poor placement of stone bag inlet dam; poor education of construction site drivers. Bags work well if used properly and maintained. Bags must form a dam around the inlet with no large gaps.

Excellent use of concrete blocks and #57 rock for ponding dam to protect inlet. Note 2"x 4" board through blocks for stabilization. Note galvanized fencing and filter fabric between block and rocks.

Very good design and installation of inlet protection ponding dam using concrete blocks and rock. Outlet pipe in background has a rock apron to dissipate flows.


TOYOTA


Open manhole


silt fence


Ineffective silt fence


JET-O-MATIC
FLUSHING TOILET
DO NOT !!!
ENTER
WOMEN
ONLY
Thank You
JOBBX
50LBS.

Providing primary and secondary containment for fuel and other hazardous materials at the work site helps prevent problems. Controlling non-storm water runoff, trash and other wastes, and post-construction runoff are also required under the new storm water permit program.


containment box for oil barrels


flow
truck tire wash area


ROSS

Dewatering operation to State water

Dewatering operation to State water (cont'd)

Dewatering operation to State water (cont'd)

Discharge point of untreated dewatering effluent to State waters


Detention Basin

containment of dewatering effluent into excavated pile area


BEFORE


AFTER


BEFORE


AFTER

EPA Best Management Practices Manuals Website

- Storm Water Management for Construction Activities – Developing Pollution Prevention Plans & Best Management Practices

  http://cfpub1.epa.gov/npdes/stormwater/swppp.cfm

Recommendation

- Contact the Clean Water Branch as early as possible

Clean Water Branch
919 Ala Moana Boulevard
Room 301
Honolulu, Hawaii 96814-4920
Phone: (808) 586-4309
Fax: (808) 586-4352
http://www.hawaii.gov/health/environmental/water/cleanwater/index.html