

US EPA ARCHIVE DOCUMENT

STORM WATER POLLUTION PREVENTION

PROTECTING WATER QUALITY ON CONSTRUCTION SITES



Tom Keegan, Dry Creek Rancheria

PURPOSE & NEED

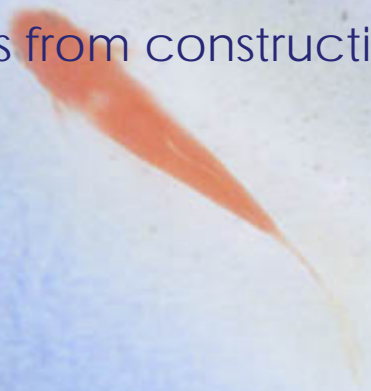
Sediment loading in storm water has potential to:

- Destroy aquatic habitat;
- Prevent fish feeding, migration and spawning;
- Interfere with recreation;
- Threaten drinking water supplies

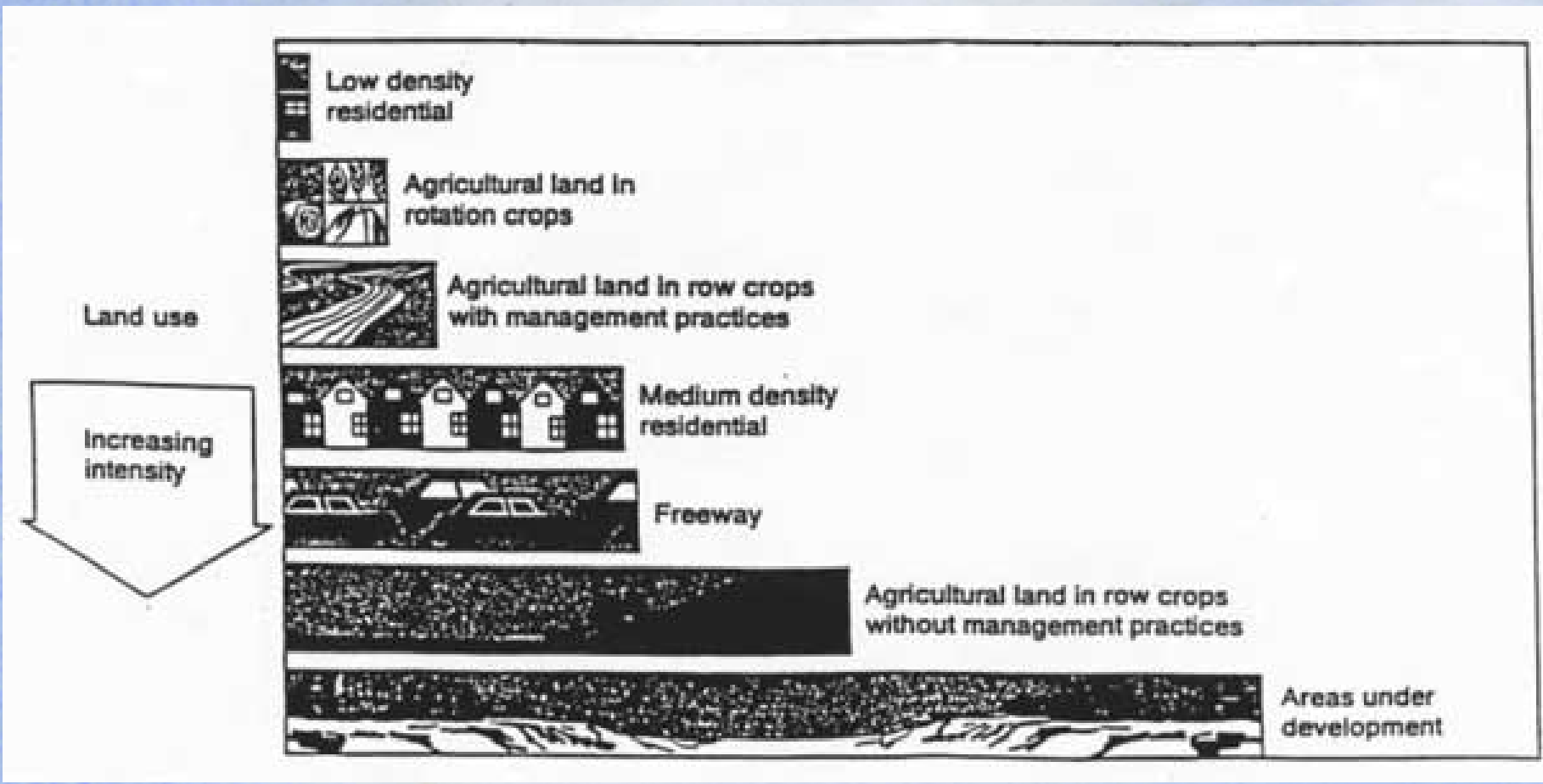


Other potential pollution includes:

- Nutrients cause algae blooms and low oxygen levels;
- Oil, grease and other petroleum products;
- Debris from construction activities

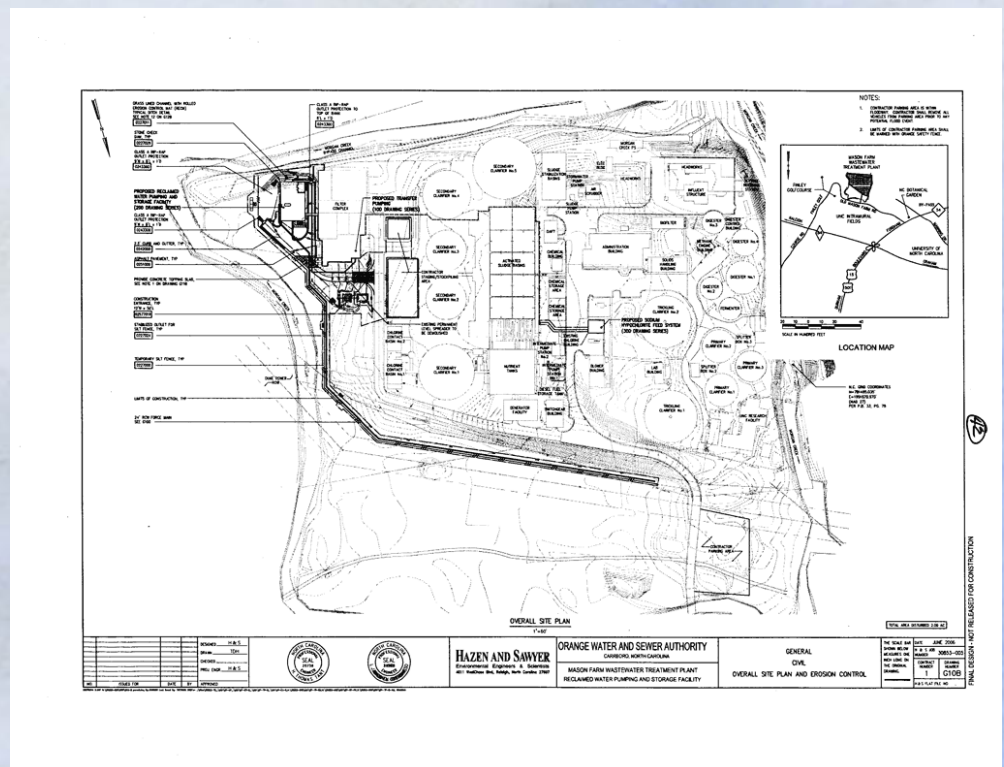


SEDIMENT LOSSES RELATED TO LAND USE PRACTICES



STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- Prior to submitting Notice of Intent to EPA;
- Site Description
- Potential Pollutant Sources
- BMP's
- Training Log
- Inspection Log
- Update The SWPPP
- Emergency Contacts



BMP'S

80% of BMP failures are from incorrect installation

GOOD



BAD



UGLY



BMP'S - SLOPES

Potential Riling:

Straw Wattles



BMP'S - SLOPES

Reinforced Silt Fencing:



BMP'S – Disturbed Areas

Hydroseed:

Native Seed Mix



BMP'S – SWALES

PROTECT STORM DRAINS:

STRAW BAILES



SILT FENCES



BMP'S – Other Contaminants

Petroleum:

Secondary Containment

Designated Fill and Repair Location



Cement Trucks:

Designated Wash Down Location

Settling Percolation Basin



BMP'S – TRACKING

Prevents Tracking onto Roadways

Large Drain Rock



Wash Down Station



BMP'S – Active Sites

Plastic Sheathing:

Protects Work In Progress

Must Protect Lower Edge

Keeps Soil Dry



BMP'S – SEDIMENT BASINS

Lower Velocity Causes Sediment to Settle:

Designed for Sediment Loading



INSPECTION LOGS

Microsoft Excel - SWPPPInspectionReport022207.xls

File Edit View Insert Format Tools Data Window Help

Type a question for help

H10 SWPPP REFERENCE

A B C D E F G H I J K L M N O P Q R S

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SITE INSPECTION REPORT

| | | | | | |
|----------------------|--|------------------------|--|-----------------|-----|
| Inspected By: | | Accompanied By: | | Company: | BEK |
| Company: | | Accompanied By: | | Company: | DCR |
| Phone #: | | Accompanied By: | | Company: | |

| TOPIC | ITEM | SWPPP REFERENCE | Date Originated | CORRECTION METHOD | DATE | BY |
|----------------------------|---|-------------------|-----------------|-------------------|------|----|
| 11 correction required | Install erosion control blanket, straw wattles, and haybales per attached figure at E-2 outlet east of existing access road to prevent additional erosion of slope and sedimentation of I-1. (Wattles should be placed proximal to pipe outlet and bale barrier proximal to I-1.) | SC-5, SS-10, SS-7 | 2/22/07 | | | |
| 12 correction required | Install gravel bags on the eastern edge of existing access road south of pigtail where runoff is causing rilling of adjacent slope. | SC-6 | 2/22/07 | | | |
| 13 correction required | Clean sediment buildup from behind gravel bag berms in lower staging area following all major rain events to facilitate desilting of runoff. | SC-6 | 2/22/07 | | | |
| 14 discussion | Refueling area shall be designated in lower staging area. Refueling shall occur within designated area when possible to prevent contamination of soil onsite. | WM-4 | 2/22/2007 | | | |
| 16 positive recognition | Remaining mulch from last week's stump grinding in lower staging area was covered with plastic anchored with gravel bags to prevent sediment runoff. | WM-3 | 2/22/2007 | | | |
| 18 positive recognition | Erosion blanket barrier in desilting basin has been repaired. | SC-2 | 2/16/2007 | | | |
| 20 positive recognition | "Kiddie pools" used as concrete washouts that were observed overflowing onto surrounding soil have been removed along with contaminated soil. | WM-8 | 2/16/2007 | | | |
| 21 correction required | Slope below radius wall 9 requires additional straw mulch to prevent sediment runoff into E-5. | SS-9 | 2/22/2007 | | | |
| | Project covered soil stock piles west of radius wall 9 and adjacent to temporary access bridge spanning E-6 with | | | | | |

Pg 1 / Pg 2 /

Ready CAPS

start Inb... Mic... bm... FW... F:\... Mic... Doc... 100% 4:39 PM

BMP'S – Methods

References:

Construction Site Best Management Practices Manual: Caltrans, March 2003

Erosion and Sediment Control Field Manual: RWDCB, San Francisco Region

