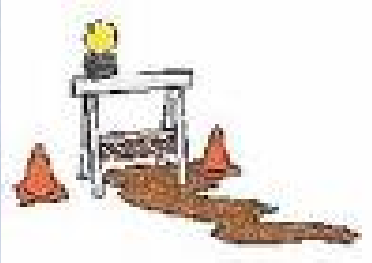
STORM WATER POLLUTION PREVENTION

PROTECTING WATER QUALITY
ON
CONSTRUCTION SITES



Tom Keegan, Dry Creek Rancheria

PURPOSE & NEED

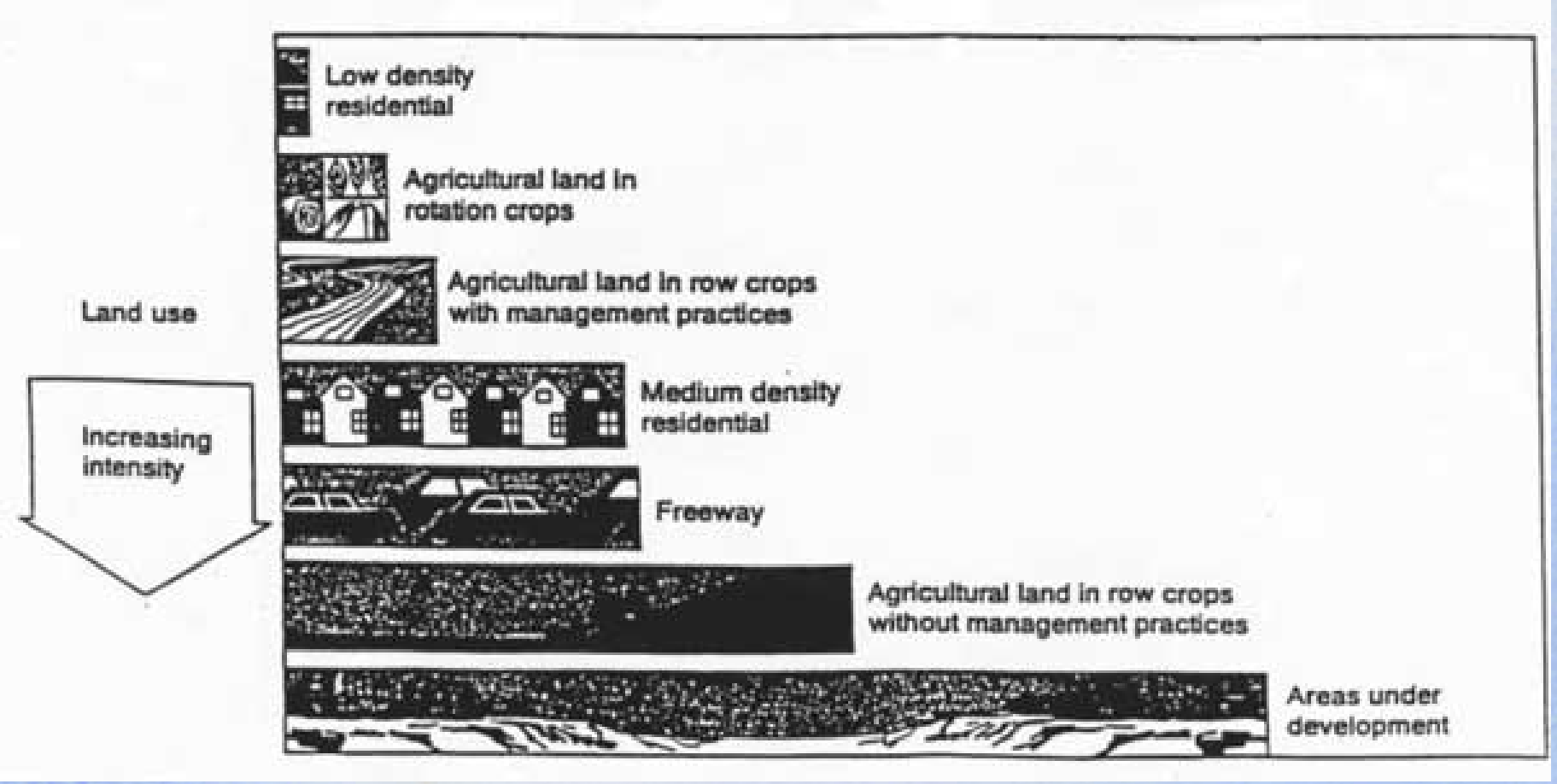
Sediment loading in storm water has potential to:

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

Other potential pollution includes:

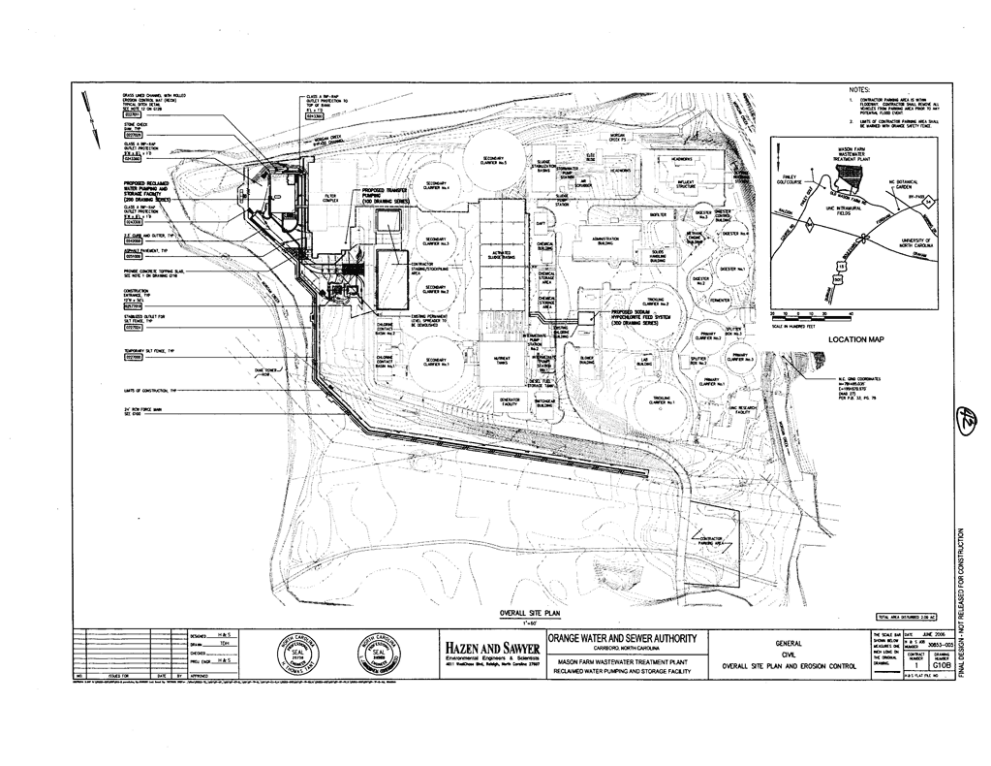
- Nutrients cause algae blooms and low oxygen levels;
- Oil, grease and other petroleum products;
- Debris from construction activities

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

H10 SWPPP REFERENCE

SITE INSPECTION REPORT

Inspected By:		**Accompanied By:**		**Company:**	BEK
Company:		**Accompanied By:**		**Company:**	DCR
Phone #:		**Accompanied By:**		**Company:**	

TOPIC	ITEM	SWPPP REFERENCE	Date Origin-ated	CORRECTION METHOD	DATE	BY
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			
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			
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			
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			
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			
positive recognition	Erosion blanket barrier in desilting basin has been repaired.	SC-2	2/16/2007			
positive recognition	"Kiddie pools" used as concrete washouts that were observed oveflowing onto surrounding soil have been removed along with contaminated soil.	WM-8	2/16/2007			
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