

Construction General Permit Expectations

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Regional Water Quality Control Board
Construction Storm Water
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EXAMPLE OF EROSION & SEDIMENT MEASURES

**After Mass Grading, What's
the First Question you should
Address as it Relates to
Water Quality?**

**Exactly....Where will water
concentrate and flow onsite**

Which Brings us too a Second Question....Which is?

- **How will I convey this concentrated stormwater runoff to state waters (i.e. ditches, drop inlets, creeks, wetlands, etc.) in the cleanest possible manner?**









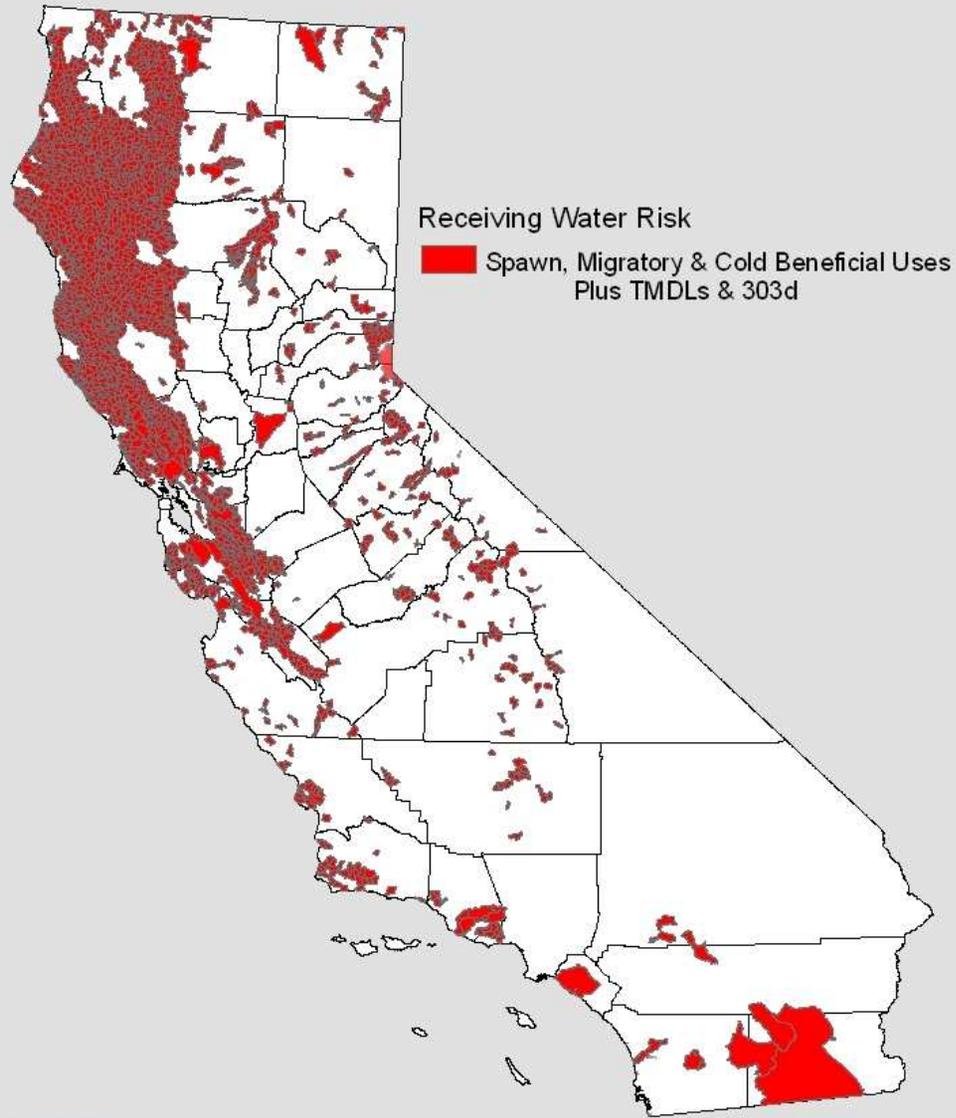








Receiving Water Risk



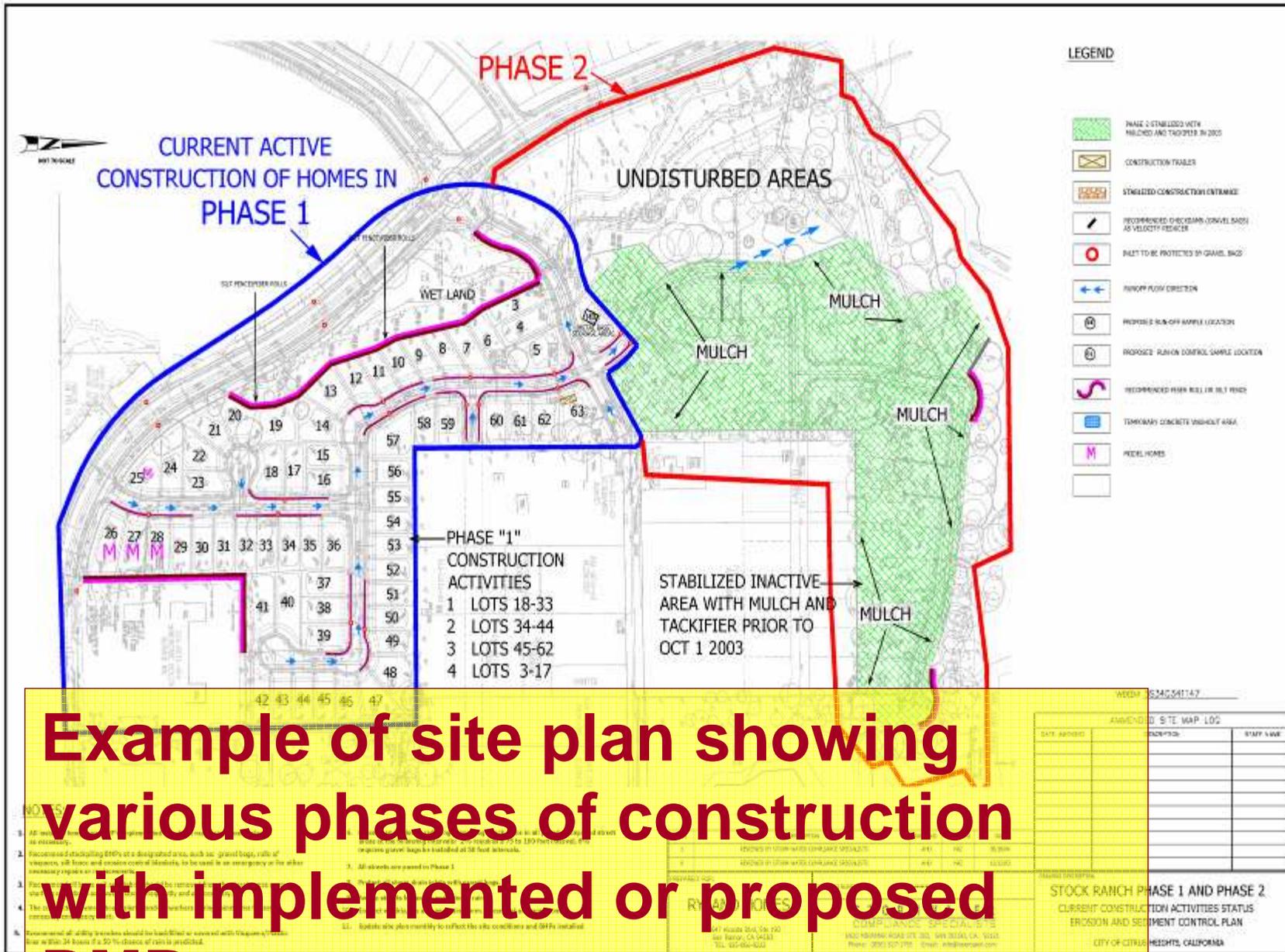
Data Source: UC Davis GeoWBS
Dynamic Query System and SWRCB

0 50 100 Miles

Receiving Water Risk

Step 3: Project Risk Determination

		Project Sediment Risk		
		LOW	MED	HIGH
Receiving Water Risk		Level 1	Level 2	
	LOW	Level 1	Level 2	
	HIGH	Level 2		Level 3



Example of site plan showing various phases of construction with implemented or proposed BMPs

Courtesy of Storm water Compliance Specialists, Inc.

Produced by:

PROPER AREA DRAIN – FILTER
FABRIC, ROCK AND FIBER
ROLLS (“WATTLES”)



**PROPER SITE
ENTRANCE - REVERSE
GRADE OR DIRECTS
RUNOFF TO DITCH**







THE CHOKE POINT



TWO CHOKE POINT STRATEGIES

- **SLOW IT, SPREAD IT, SOAK IT IN**
- **SLOW IT, FILTER IT, OFF IT GOES**







**HOW TO AVOID THE NEED
FOR ACTIVE TREATMENT
SYSTEMS**



**ANY PROBLEM WITH
THIS APPROACH?**



**PROPER TRACKING, SEED
AND MULCH ARE VERY
EFFECTIVE FOR STOCKPILE
MANAGEMENT**



VOLUME BASED HYDROLOGY

- **GROWING BODY OF KNOWLEDGE THAT TREATING STORMWATER IS LESS EFFECTIVE THAN “REMOVING” RUNOFF**
- **SHIFT IN FOCUS FROM PEAK FLOWS AND POLLUTION TREATMENT OF 85TH PERCENTILE STORMS TO MIMICKING PREDEVELOPMENT RUNOFF RATES**
- **CAPTURE FOR EVAPOTRANSPIRATION AND/OR INFILTRATION**
- **ONSITE STORAGE AND REUSE**



RAIN EVENT ACTION PLAN

FORMS TO BE COMPLETED BY QSP

- **EXAMPLES OF RESTRICTED ACTIVITIES:**
- **NO LIME ADDITION**
- **NO CONCRETE OR PAVING**
- **CLEAN OUT CAPTURED SEDIMENTS**
- **COVER MATERIALS**
- **SWEEP ROADS**

Who Can Develop SWPPPs?

- **Registered Engineer**
- **Registered Geologist**
- **Registered Landscape Architect**
- **Professional Hydrologist**
- **Erosion and Sediment Control License (CPESC)**
- **Stormwater Quality License (CPSWQ)**
- **ESC Professional thru National Inst. For Cert. in Engineering Technologies**
- **And, Within 2 yrs of permit adoption – Attend SWRCB sponsored or approved training course**

Who Will be Responsible for Onsite Inspection and Sampling? QUALIFIED SWPPP PRACTITIONER (QSP)

- **ENSURES BMP IMPLEMENTATION**
- **VISUAL OBSERVATIONS**
- **SAMPLING AND ANALYSIS**
- **SWPPP UPDATES**
- **2 YEARS AFTER PERMIT ADOPTION QSP**
MUST:
- **BE QSD CERTIFIED**
- **ATTEND SWRCB SPONSORED OR
APPROVED TRAINING COURSE**

**WHAT'S WRONG WITH THIS
STOCKPILE EROSION CONTROL
EFFORT?**



IDEAL SWPPP COMPONENTS

- MINIMIZE GRADING DURING RAIN SEASON**
- PRESERVE AS MUCH NATIVE VEGETATION AS POSSIBLE**
- STORMWATER RUNON DIRECTED AWAY FROM ACTIVE CONSTRUCTION ZONES**
- SEEDING AND MULCHING ESTABLISHED ON ALL DISTURBED AREAS ASAP**
- CONSTRUCTION ENTRANCE REVERSE GRADED WITH GEOTEXTILE FABRIC AND 3" MINUS ROCK**

IDEAL SWPPP COMPONENTS

- **WATTLES SPACED @ 20 FEET ON CONTOURS ON ALL SLOPES Milder THAN 2H:1V SLOPE**
- **EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 2H:1V AND LONGER THAN 20 FEET**
- **NO SILT FENCING OR STRAW BALES IN AREAS OF ACTIVE CONCENTRATED FLOW**
- **MINIMIZE USE OF PLASTIC**
- **VEGETATED OR BIO-RETENTION SWALES AS POST CONSTRUCTION BMPS**

COMPOSIT SAMPLING ALLOWED FOR REPRESENTATIVE DISCHARGES

- Discharges that are similar in nature
- Compositing 3 samples with NTUs of 350, 395 and 450 is OK
- Compositing 3 samples with NTUs of 1,000, 45 and 150 is NOT OK

SAMPLING REALITIES

- **Must be collected at point of discharge offsite**

For storm drain Inlets:

- **Clean out collected sediment prior to rain event**
- **Sample downgradient of inlet protection**
- **May need to use rubber dust pan to collect sample**

SAMPLING REALITIES

For ditches and swales:

- **Use vegetation and check dams to help drop out sediment**
- **Sample just prior to offsite discharge**
- **Sample first ½ inch of water column**

MY EXPECTATIONS

- **NOI AND SWPPP ONSITE**
- **CERTIFIED BY QSD**
- **SWPPP IMPLEMENTED AND UPDATED AS NECESSARY**
- **ANNUAL CERTIFICATION REPORT**
- **INSPECTION AND TRAINING DOCS**
- **PROPER SPCC. SOLID WASTE AND HAZARDOUS WASTE CONTROL MEASURES**
- **PROPER CONCRETE WASTE HANDLING**
- **GOOD HOUSEKEEPING**
- **RESPONSE FOLLOWING MAJOR STORM EVENTS**

Post Inspection thoughts for sites of concern

- Is there an effort being made to implement an **effective** SWPPP?
- Is it a **combination** of effective erosion and sediment controls?
- Are the **other** pollutants of concern being addressed?
- Are you being **“brushed off”** by site personnel?
- Is the landowner involved or have they **“contracted away”** their ESC contractual agreements?
- If so, do they realize that we still enforce on the **landowner**?

**THAT'S ALL
FOLKS!**

