

WEBINAR

JULY 14, 2022



CALIFORNIA STORMWATER
QUALITY ASSOCIATION®

AGENDA

Introduction	Karen Cowan
TMDLs	Kadi Whiteside
Monitoring and Sampling	Melanie Sotelo
QSD/QSP Responsibilities	Sandy Mathews
Passive Treatment	Tanya Bilezikjian
Training Program	Daniel Apt/Ken Kristoffersen
BMP Handbooks	John Heltzel
RUSLE2	Andrew Sidor
Wrap-Up/The Remainders	Dave Mercier



**CAUTION: INFORMATION ON THE CGP REQUIREMENTS MAY
CHANGE UNTIL THE PERMIT IS ADOPTED**

CONFIRM ALL REQUIREMENTS IN THE ORDER ADOPTED BY THE STATE WATER BOARD

TOTAL MAXIMUM DAILY LOADS (TMDLs)

- THE PROPOSED PERMIT IMPLEMENTS 69 EXISTING TMDLS
 - REQUIREMENTS DO NOT APPLY TO ALL DISCHARGERS
- COMPLIANCE WITH TMDL – RELATED NUMERIC ACTION LEVEL (NAL) AND NUMERIC EFFLUENT LIMITATION
 - SITE POLLUTANT SOURCE ASSESSMENT
 - NON-VISIBLE POLLUTANT MONITORING ONLY IF POLLUTANT IS PRESENT, AND BMPS ARE BREACHED, MALFUNCTION OR FAIL, OR A SPILL

FOUR PRIMARY IMPLEMENTATION CATEGORIES

Comply with
General Permit

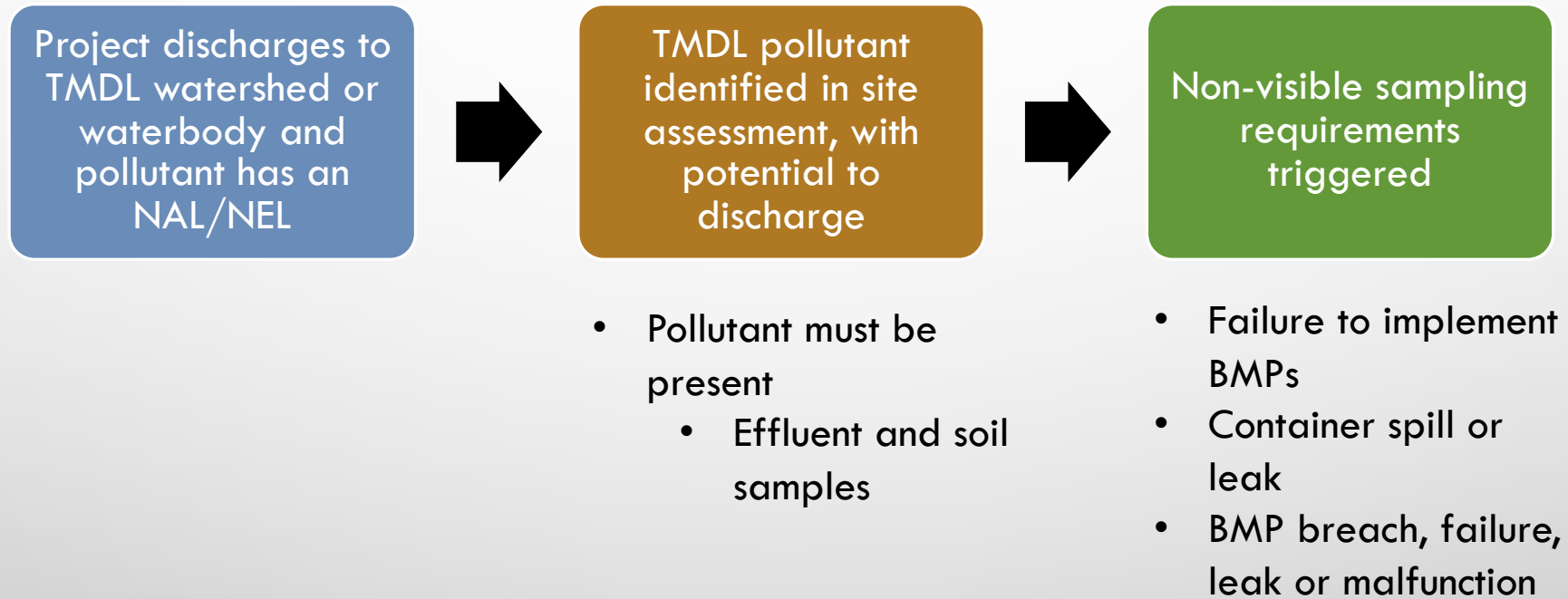
Erosion and
sediment controls
paired with RUSLE2
Modeling

Numeric Action
Levels(NALS)

Numeric Effluent
Limitations (NELs)

TMDL SAMPLING TRIGGERS

ALL THREE CONDITIONS NEED TO BE PRESENT TO REQUIRE TMDL SAMPLING



IMPLEMENTATION REQUIREMENTS

Comply with General Permit

- Implementation of Best Management Practices (BMPs)
 - E.g., routine housekeeping, sanitary waste management, etc.
- May require structural BMPs

Erosion and sediment controls paired with RUSLE2 Modeling

- On-site source and mass-based Waste Load Allocation (WLA) in applicable TMDL(s)
- BMPs to result in predicted erosion rates equal to pre-construction conditions
- RUSLE2 modeling for each phase

Numeric Action Levels(NALS)

- Implement BMPs to prevent an NAL exceedance
- Exceedance occurs on the 2nd and each subsequent taken
 - Within the same drainage area
 - During the same reporting year
- Not a violation

Numeric Effluent Limitations (NELs)

- Implement BMPs to prevent an NEL exceedance
- Exceedance occurs on the 2nd and each subsequent taken
 - Within the same drainage area
 - During the same reporting year
- Is a violation and subject to penalties

TMDL SAMPLING

2009 PERMIT

- PERFORM GRAB SAMPLES FOR PH AND TURBIDITY AND MEASURED WITH A HANDHELD (FIELD) EQUIPMENT
 - NAL FOR PH AND TURBIDITY
- NON-VISIBLE SAMPLING PERFORMED IF A SPILL, BREACH OR FAILURE OF BMPS OCCURS AND UNABLE TO REMEDIATE/CLEANUP PRIOR TO NEXT PRECIPITATION EVENT
- NO TMDL REQUIREMENTS
- NALS
 - IF AN EXCEEDANCE OCCURS RESULTS TO BE SUBMITTED WITHIN 10 DAYS
- NON-VISIBLE SAMPLING RESULTS SUBMITTED WITH THE ANNUAL REPORT

PROPOSED 2022 PERMIT

- PERFORM GRAB SAMPLES FOR PH AND TURBIDITY AND MEASURED WITH A HANDHELD (FIELD) EQUIPMENT
- NON-VISIBLE SAMPLING PERFORMED IF A SPILL, BREACH OR FAILURE OF BMPS OCCURS AND UNABLE TO REMEDIATE/CLEANUP PRIOR TO NEXT PRECIPITATION EVENT
- TMDL SAMPLING – GRAB SAMPLES COLLECTED AND SENT IN FOR LAB ANALYSIS (SEE TMDL SAMPLING TRIGGERS)
- NALS AND NELS
 - IF AN EXCEEDANCE OCCURS RESULTS TO BE SUBMITTED WITHIN 10 DAYS
- ROUTINE AND NON-VISIBLE SAMPLING RESULTS SUBMITTED WITHIN 30 DAYS AFTER OBTAINING THE ANALYTICAL RESULTS

The background of the slide is a light gray gradient. It is decorated with several realistic water droplets of various sizes. In the top-left corner, there is a large droplet and several smaller ones. In the top-right corner, there is a medium-sized droplet and a small one. In the bottom-right corner, there is a large, irregular droplet and several smaller ones. In the bottom-center area, there are a few more small droplets. The droplets have highlights and shadows, giving them a three-dimensional appearance.

MONITORING AND SAMPLING

VISUAL MONITORING - TRADITIONAL

2009 Permit

Risk Level	Quarterly Non-Stormwater Discharge	Pre-Storm Event		Daily Storm BMP	Post-Qualifying Event
		Baseline	REAP		
1	X	X	Not Applicable	X	X
2	X	X	X	X	X
3	X	X	X	X	X

Proposed 2022 Permit

Risk Level	Weekly	Pre-Qualifying Event	During-Qualifying Event	Post-Qualifying Event
1	X	X	X	X
2	X	X	X	X
3	X	X	X	X

VISUAL MONITORING – LINEAR UTILITY

2009 Permit

LUP Type	Daily Site BMP	Pre-Storm Event/ Baseline	Daily Storm BMP	Post-Storm
1	X	Not Applicable	Not Applicable	Not Applicable
2	X	X	X	X
3	X	X	X	X

Proposed 2022 Permit

LUP Type	Weekly	Pre-Qualifying Precipitation Event	During-Qualifying Precipitation Event	Post-Qualifying Precipitation Event
1	X	X	X	Not Applicable
2	X	X	X	X
3	X	X	X	X

MONITORING – QUALIFYING EVENT

2009

Permit

- EVENT FORECAST
 - **STORM DEPTH $\geq$ 0.5-INCH**

PoP -
Probability of
Precipitation

**Proposed
2022 Permit**

- EVENT BEGINS WITH FORECAST
 - **POP $\geq$ 50%**
 - **QPF $\geq$ 0.5-INCH**
- EVENT ENDS WITH FORECAST
 - **2 SEQUENTIAL 24-HR PERIODS**
 - **QPF $<$ 0.25-INCH**

Within 24-Hr Period

QPF -
Quantitative
Precipitation
Forecast

SAMPLING - TRADITIONAL

2009 Permit

Risk Level	Stormwater Discharge	Receiving Water
1	Not Applicable	Not Applicable
2	X	Not Applicable
3	X	X

Proposed 2022 Permit

Risk Level	Stormwater Discharge Sample Collection (as applicable)	Receiving Water Sample Collection (as applicable)	Non-Visible Sample Collection (as applicable)
1	Not Applicable	Not Applicable	X
2	X	Not Applicable	X
3	X	X (Post-Exceedance)	X

SAMPLING – LINEAR UTILITY

2009 Permit

LUP Type	Stormwater Discharge Sample Collection	Receiving Water Sample Collection	Non-Visible Sample Collection
1	Not Applicable	Not Applicable	X
2	X	Not Applicable	X
3	X	X	X

Proposed 2022 Permit

Risk Level	Stormwater Discharge Sample Collection (as applicable)	Receiving Water Sample Collection (as applicable)	Non-Visible Sample Collection (as applicable)
1	Not Applicable	Not Applicable	X
2	X	Not Applicable	X
3	X	X (Post-Exceedance)	X

SAMPLING – GENERAL OVERVIEW

**Proposed
2022 Permit**

- **PH AND TURBIDITY SAMPLING**
 - **3 SAMPLES PER DISCHARGE LOCATION WITHIN 24-HR PERIOD**
 - **DURING ACTIVE DISCHARGE**
 - **WITHIN BUSINESS HOURS**
- **SUBMITTED TO SMARTS WITHIN**
 - **30 DAYS – NO EXCEEDANCE**
 - **10 DAYS – EXCEEDANCE**

Sampling Exceptions
Included - Revised
Language

Stored Stormwater
Sampling Required

Run-on Sampling –
Remains Optional

Receiving Water
Sampling – Revised
Language

The background of the slide is a light gray gradient. It is decorated with several realistic water droplets of various sizes. In the top-left corner, there is a large droplet and several smaller ones. In the top-right corner, there is a medium-sized droplet and a small one. In the bottom-right corner, there is a large, irregular droplet and several smaller ones. In the bottom-center area, there are a few small droplets. The text is centered in the middle of the slide.

QSD/QSP RESPONSIBILITIES

EXPANDS ROLE FOR QSDS FROM BEGINNING TO END OF PROJECT

- **2009 PERMIT**

- QSDS MUST PREPARE SWPPPS AND SWPPP AMENDMENTS

- **PROPOSED 2022 PERMIT**

- QSDS MUST PERFORM SPECIFIED INSPECTIONS THROUGHOUT PROJECT
- WITHIN 30 DAYS OF THE START OF CONSTRUCTION
- WITHIN 30 DAYS OF QSD REPLACEMENT
- TWICE ANNUALLY: AUG-OCT; JAN-MAR
- WITHIN 14 DAYS OF NAL EXCEEDANCES
- AS REQUESTED BY WATER BOARD STAFF

**QSD inspections
may not be
delegated**

OTHER EXPANDED QSD RESPONSIBILITIES

- **PROPOSED 2022 PERMIT**

- QSDS MUST INSPECT INACTIVE SITES WITHIN 14 DAYS OF STATUS APPROVAL BY WATER BOARD
- QSDS MUST PREPARE PASSIVE TREATMENT PLANS
- QSDS MAY PERFORM WORK OF A QSP

EXPANDED ROLE FOR QSP OVERSIGHT OF WORK AT SITE

- **2009 PERMIT**

- QSPS ARE RESPONSIBLE FOR INSPECTION, MAINTENANCE REPAIR AND SAMPLING ACTIVITIES
- MAY BE DELEGATED TO APPROPRIATELY TRAINED STAFF

- **PROPOSED 2022 PERMIT**

- QSPS MUST PERFORM SPECIFIED INSPECTIONS THROUGHOUT PROJECT THAT MAY NOT BE DELEGATED
 - MONTHLY, WITHIN 72 HOURS OF A QUALIFIED PRECIPITATION EVENT (QPE), WITHIN 14 DAYS OF NAL EXCEEDANCE
- QSPS MUST PROVIDE FOUNDATIONAL AND SITE-SPECIFIC TRAINING FOR DELEGATES
- QSPS MUST DETERMINE THAT DELEGATES HAVE COMPETENT UNDERSTANDING OF TASKS
- QSPS MUST REVIEW AND OVERSEE WORK COMPLETED BY DELEGATES

Delegates must be identified in SMARTS before performing tasks

EXPANDED ROLE FOR QSPS OVERSIGHT OF WORK AT SITE

- **PROPOSED 2022 PERMIT**

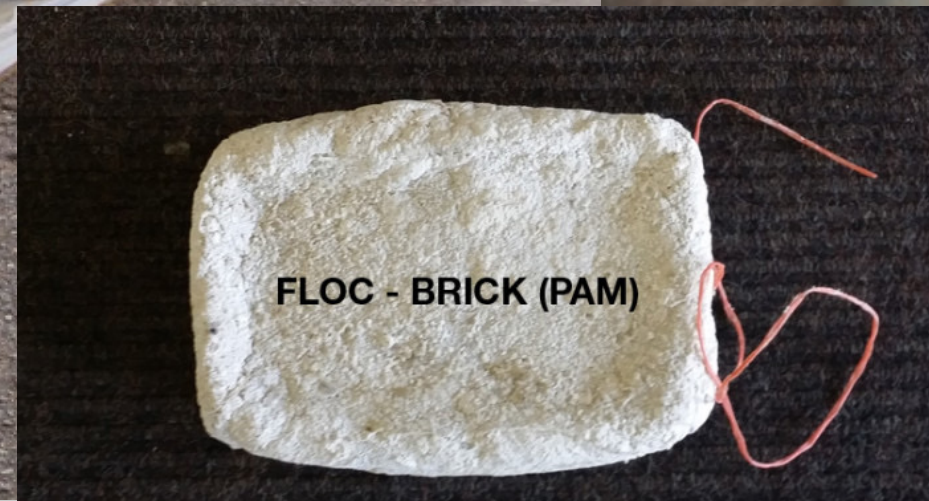
- QSPS MUST DIRECT DEPLOYMENT OF EROSION CONTROL BMPS
- QSPS MUST CHECK NOAA FORECAST DAILY DURING QPES
- QSPS MUST COMPLETE THE NOTICE OF TERMINATION (NOT)
- QSP MUST INSPECT SITE PRIOR TO NOT OR CHANGE OF INFORMATION SUBMITTAL
- QSPS MUST IMPLEMENT PASSIVE TREATMENT PLANS
- QSPS MUST INSPECT PASSIVE TREATMENT APPLICATION AREAS 72 HOURS IN ADVANCE OF FORECAST PRECIPITATION AND WITH 48 HOURS OF A QPE
- QSPS MUST TRAIN STAFF AT SITES SUBJECT TO BACTERIA TMDLS

PASSIVE TREATMENT

WHAT IS PASSIVE TREATMENT, AND WHY IS IT IMPORTANT?

- PASSIVE TREATMENT IS THE USE OF CHEMICALS TO REDUCE TURBIDITY THROUGH COAGULATION AND FLOCCULATION FOLLOWED BY SETTLING
- PASSIVE TREATMENT IS THE FIRST BMP THAT REMOVES TURBIDITY FROM WATER

PASSIVE TREATMENT PRODUCTS IN USE



CONSTRUCTION STORMWATER TREATMENT HISTORY

CALIFORNIA HISTORY

- **1999 CA CGP:** NO TREATMENT ALLOWED; TREATMENT BY GRAVITY FED BMPS ONLY; NO TURBIDITY TRIGGERS
- **2009 CA CGP:** ONLY ACTIVE TREATMENT ALLOWED (HIGH COST, DIFFICULT TO IMPLEMENT, INCLUDED NELS). INTRODUCED THE USE OF TURBIDITY AS A MEASURE OF COMPLIANCE, BUT TRADITIONAL CONSTRUCTION SITE BMPS DO NOT REMOVE TURBIDITY
- **DRAFT 2022 CGP:** PASSIVE TREATMENT IS NOW ALLOWED. YAY!

OTHER INDUSTRIES/GEOGRAPHIES

- **AGRICULTURE:** USES PASSIVE TREATMENT CHEMICALS, AND HAS A WEALTH OF RESEARCH AND GUIDANCE ON PRODUCTS AND DOSING RATES
- **OTHER STATES/COUNTRIES:** ALLOW USE OF PASSIVE TREATMENT, SIGNIFICANT RESEARCH AND INFORMATION AVAILABLE ON EFFECTIVENESS AND USE
- **EPA CGP:** ALLOWS USE OF PASSIVE TREATMENT

PASSIVE TREATMENT

- PERMIT APPROACH
 - NOT A STANDALONE BMP. MUST USE IN CONJUNCTION WITH SEDIMENT CONTROLS
 - DEVELOP PASSIVE TREATMENT PLAN
 - INSPECTION: 72 HOURS PRIOR TO FORECAST PRECIPITATION/48 HOURS FOLLOWING QUALIFYING PRECIPITATION EVENTS
 - MONITORING: ACCORDING TO RISK LEVEL/LUP TYPE
 - “TRAINED PERSON” MUST BE IN CHARGE OF PASSIVE TREATMENT WORK ONSITE
- COST: INCREASE
- COMPLIANCE RISK: DECREASE
- IMPACT: POSITIVE
 - ABILITY TO TARGET FINE SUSPENDED SEDIMENT
 - ABILITY TO MEET TURBIDITY LIMITS
 - MAY BE A CHALLENGE TO FIND ENOUGH TRAINED PEOPLE



TRAINING REQUIREMENTS

- SOMEWHAT UNCLEAR. ATTACHMENT G REQUIRES A “TRAINED PERSON” BE RESPONSIBLE FOR PASSIVE TREATMENT IMPLEMENTATION
- HEAVY RELIANCE ON MANUFACTURER DATA ON TOXICITY, DOSE RATE
- COST: INCREASE
- IMPACT: NEUTRAL
 - INCREASED TRAINING UPFRONT
 - CONTINUING EDUCATION LIKELY TO OVERLAP WITH UNDERLYING CERTIFICATIONS
 - ADDITIONAL STANDARDIZED TRAININGS TO BE MADE AVAILABLE

BENEFITS AND DRAWBACKS OF PASSIVE TREATMENT

BENEFITS

- ABILITY TO REMOVE TURBIDITY, WHICH IS USED AS A PROXY FOR SEDIMENT DISCHARGE, TO ASSESS BMP EFFECTIVENESS, AND TO MEASURE PERMIT AND TMDL COMPLIANCE

DRAWBACKS

- CANNOT MODEL THE EFFECTS OF PASSIVE TREATMENT IN RUSLE2
- FEW QSDS AND QSPS AND CONTRACTORS HAVE EXPERIENCE IMPLEMENTING PASSIVE TREATMENT
- IT CAN BE DIFFICULT TO TREAT A WHOLE SITE WITH PASSIVE TREATMENT. SHEET FLOW DISCHARGES WILL NEED TO RELY ON EROSION CONTROLS OVER PASSIVE TREATMENT.
- “IF A HANDFUL IS GOOD, IS FIVE HANDFULS BETTER?” THOUGHT PROCESS CAN LEAD TO OVER DOSING AND RELEASE OF UNREACTED PASSIVE TREATMENT CHEMICAL

RECOMMENDATION

- EMPLOY PASSIVE TREATMENT ON RISK LEVEL 2/3 OR LUP TYPE 2/3 SITES ONLY, OR THOSE WITH TMDL-TRIGGERED TURBIDITY REQUIREMENTS

TRAINING PROGRAM

TRAINING: CGP TRAINING TEAM (CGPTT)

- FORMED BY THE STATE WATER BOARD & CASQA IN 2008 TO DEVELOP THE CGP TRAINING PROGRAM
- CGPTT WORKS COOPERATIVELY WITH AND IS AN ADVISORY BODY TO THE STATE WATER BOARD AND CASQA ON THE CGP TRAINING PROGRAM
- CONSISTS OF DIFFERENT CATEGORIES OF PROFESSIONALS AND REPRESENTATION FROM DIFFERENT SECTORS INCLUDING:
 - STATE WATER BOARD & REGIONAL WATER QUALITY CONTROL BOARDS
 - CASQA
 - MS4S
 - CONSTRUCTION BMP IMPLEMENTATION EXPERTISE
 - TRAINING DEVELOPMENT EXPERTISE
 - SPECIALTY BMP APPLICATION,
 - LINEAR UTILITIES
 - TRANSPORTATION
 - BUILDING INDUSTRY
- CGPTT SUBCOMMITTEES
- CONTENT
 - DEPLOYMENT
 - TOR QUALIFICATIONS
 - EXAM
 - QSD/QSP PREREQUISITES/QUALIFICATIONS



CGP TRAINING PROGRAM GOALS

- THE CGP TRAINING PROGRAM IS INTENDED TO HELP ACHIEVE THE FOLLOWING GOALS:
 - COMPLIANCE WITH THE CGP
 - PROTECTION OF CALIFORNIA'S WATERS FROM STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES
 - FAIR, FIRM AND CONSISTENT, STATEWIDE ENFORCEMENT OF THE CGP
- 

CGP TRAINING PROGRAM UPDATES

- UPDATES TO ADDRESS CHANGES WITH THE NEW CGP
- PROCESS FOR UPDATES HAS NOT YET BEEN FORMALIZED BY THE CGPTT, ONLY DRAFT
- GENERAL DRAFT PROCESS FOR CGP TRAINING PROGRAM UPDATES:
 - CGPTT TO DEVELOP NEW DRAFT MODULE THAT HIGHLIGHTS CHANGES BETWEEN THE EXISTING AND NEW REQUIREMENTS, A DIRECT COMPARISON
 - CGPTT WILL LIKELY HOLD A FEEDBACK FORUM TO RECEIVE INPUT ABOUT THE NEW DRAFT MODULE
 - CGPTT TO FINALIZE THE NEW MODULE AND PLACE IN AN ONLINE FORMAT
 - TIMELINE FOR MODULE DEVELOPMENT IS TBD

CGP TRAINING PROGRAM UPDATES CONT.

- GENERAL DRAFT PROCESS FOR CGP TRAINING PROGRAM UPDATES – CONT.:
 - EXISTING QSD/QSPS TO TAKE A SELF-LED, NEW ONLINE TRAINING MODULE, ROUGHLY 2 – 4 HOURS OF CONTENT
 - NEW MODULE WILL BE USED BY CGP TORS FOR QSD-QSP TRAINING CLASSES ONCE THE MODULE IS DEVELOPED
 - TORS SHALL INCORPORATE THE NEW MODULE AS SOON AS IT IS AVAILABLE
 - NEW QSD/QSPS STILL NEED TO LEARN BOTH THE 2009 AND REISSUED PERMIT REQUIREMENTS DURING THE CGP REGULATORY TRANSITION PERIOD
 - ONCE THE CGP REGULATORY TRANSITION PERIOD ENDS, MATERIAL PERTAINING TO THE 2009 PERMIT WILL BE REMOVED FROM THE CGP TRAINING MODULES AND THE QSD-QSP EXAM QUESTIONS

BMP HANDBOOKS

BMP HANDBOOKS

GOALS

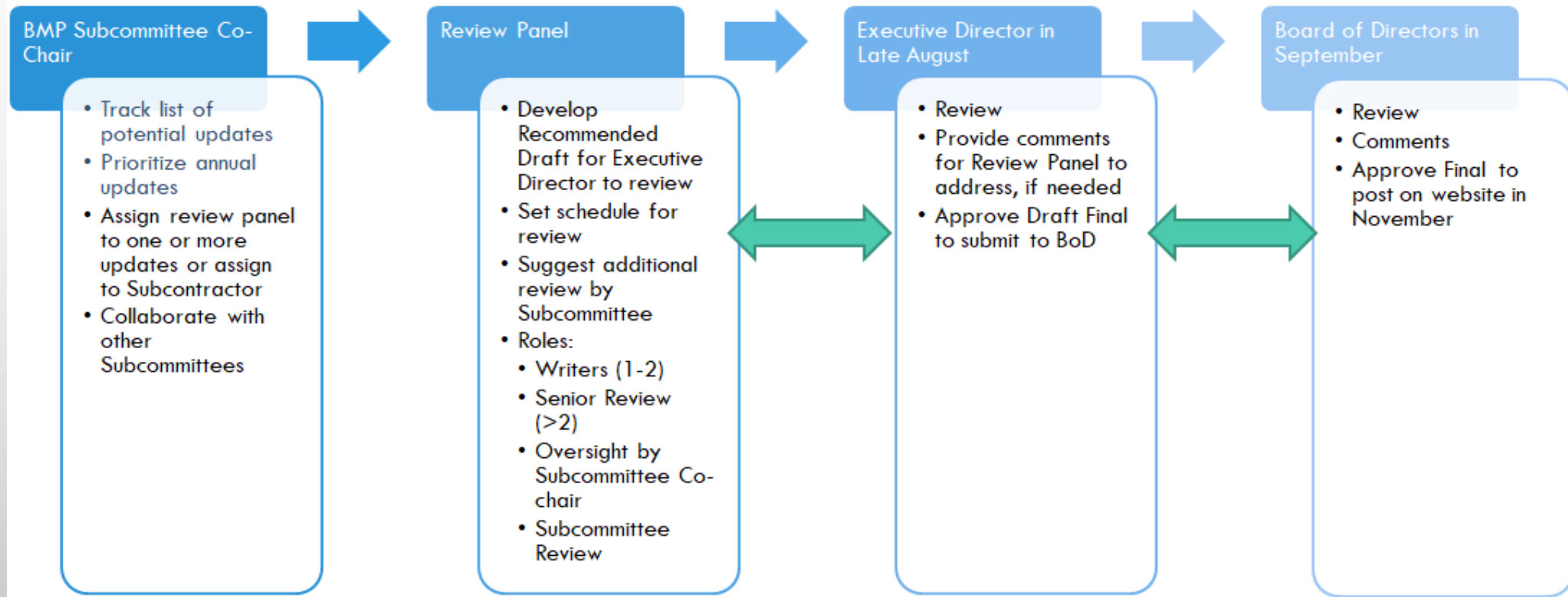


Overview of New Draft Review Process



Tentative Schedule for BMP Handbook Updates

DRAFT REVIEW PROCESS FOR NEW PRODUCTS



DRAFT ROLES AND RESPONSIBILITIES:

Subcommittee Review Panel	Co-Chair	Executive Director	Board of Directors
• Identify Lead to provide updates to the Subcommittee • Writers (1-2) • Multiple reviewers (>2) • Not the writer • Relevant technical expertise • Subcommittee, as-needed • if recommended by RP • Review of new material	• Oversight	• Review and comment • Submit Final Draft to Board of Directors	• Review and provide feedback • Approval of Final Draft • Post by following month

BMP HANDBOOK UPDATE SCHEDULE

- -SOLICIT RFP (NOW THROUGH CGP ADOPTION)
- -FOR ADDITIONAL INFO SEE ([HTTPS://WWW.CASQA.ORG/ABOUT/RFPS-RFQS](https://www.casqa.org/about/rfps-rfqs))
- -CURRENT DUE DATE LISTED AS AUGUST 5TH AT 5:00 PM. WILL BE EXTENDED
- -SOLICIT INPUT FROM MEMBERS AND REVIEWERS FROM BMP HANDBOOK SUBCOMMITTEE/COLLABORATE WITH CONSTRUCTION SUBCOMMITTEE
- -FINAL DRAFT HANDBOOK UPDATES DUE TO BOARD OF DIRECTORS SEPTEMBER 1ST 2023



NEXT BMP HANDBOOKS SUBCOMMITTEE MEETING

•TUESDAY JULY 19TH AT 1:00 PM

- JOHN.HELTZEL@OWP.CSUS.EDU
 - ROSHAN.CHRISTOPH@CASQA.ORG
- 

RUSLE2

RUSLE2 REQUIREMENTS

- **REVISED UNIVERSAL SOIL LOSS EQUATION, VERSION 2 (RUSLE2)**
 - EROSION PREDICTION MODEL (EROSION RATES AND SEDIMENT DELIVERY)
 - COMPUTATIONS BASED ON EQUATIONS, SCIENTIFIC DATA, AND TECHNICAL JUDGMENT



Manage Soil Topo

Add break Erase break

STEP 1: Choose location to set climate:
Location

STEP 2: Choose soil type:
Segment

Segment	Seg length (horiz), ft	Soil
1	300	...sandy loam, 2 to 8 percent slopes\Hanford Coarse sandy loam 85%

STEP 3: Set slope topography:
Segment

Segment	Slope length to bottom of seg (along slope), ft	Seg length (horiz), ft	Steepness, %	Total vert. drops, ft	Sediment delivery, t/ac/yr
1	35.36	25.00	100	25	1.5
2	135.4	100.0	1.0	26	0.100
3	191.3	50.00	50	51	1.3
4	316.3	125.0	2.0	54	0.13

Slope length (along slope), ft Slope length (horiz), ft

STEP 4: Select and modify management:

Segment	Slope length to bottom of seg (horiz), ft	Management	Sed. delivery, t/ac/yr
1	11	...imate areas\Existing Undisturbed Vegetative Cover\Grass and forbs, existing, 50 to 60 pct Canopy Cover	1.7
2	12	MAN_PTR:INTERNAL[1]	1.4
3	24	...imate areas\Existing Undisturbed Vegetative Cover\Grass and forbs, existing, 50 to 60 pct Canopy Cover	2.7
4	25	MAN_PTR:INTERNAL[3]	1.5
5	120	Mediterranean climate areas\Existing Undisturbed Vegetative Cover\bare ground	0.40

STEP 5: Set supporting practices: Contouring
Diversions, Terraces, Sediment Basins

STEP 6: Set Sediment barrier system:
Sediment barrier set description

Adjust yields

Soil loss, t/ac/yr
Soil loss erod. portion, t/ac/yr
Sediment delivery, t/ac

RUSLE2 REQUIREMENTS

- **2009 CGP**

- METHOD OF DEMONSTRATING FINAL STABILIZATION WHEN FILING NOTICE OF TERMINATION
- SELDOM OR INCONSISTENT USE
 - NO STANDARD GUIDELINES/GUIDANCE
 - LIMITED DATA SETS
 - ACCEPTANCE OF USE VARIES ACROSS REGIONAL BOARDS
- “FINAL STABILIZATION” – SEDIMENT DISCHARGE RISK LESS THAN PRE-CONSTRUCTION
 - BOTH SOIL LOSS AND SEDIMENT DELIVERY LESS THAN PRE-CONSTRUCTION CONDITION

RUSLE2 REQUIREMENTS

- **PROPOSED 2022 CGP**

- STILL AN ACCEPTABLE METHOD OF DEMONSTRATING FINAL STABILIZATION WHEN FILING NOTICE OF TERMINATION
- **MUST USE RUSLE2 TO MEET SEVERAL NEW TMDL REQUIREMENTS IN SELECT WATERSHEDS**
 - SLOPES MODELED AT EACH PHASE OF CONSTRUCTION
 - SOIL LOSS AND SEDIMENT DELIVERY MUST BE LESS THAN PRE-CONSTRUCTION CONDITION DURING EACH PHASE
 - EROSION AND SEDIMENT CONTROL BMPS BASED ON RUSLE2 RESULTS TO BE DEPLOYED
- **MAY BE REQUIRED TO DEMONSTRATE NATURAL BUFFER SEDIMENT LOAD EQUIVALENCY FOR PROJECTS WITHIN 50-FEET OF A RECEIVING WATER**

RUSLE2 REQUIREMENTS

- **TMDL APPLICABILITY**

Region	Waterbody/Watershed		
North Coast (1)	Albion River	Upper Eel River	Noyo River
	Big River	South Fork Eel River	Ten Mile River
	Lower Eel	Gualala River	Trinity River
	Middle Fork Eel River	Mad River	Van Duzen River
	Middle Main Eel River	Mattole River	
	North Fork Eel River	Navarro River	
Los Angeles (4)	Ballona Creek	Revolon Slough	Machado Lake
	Ballona Creek Estuary	Colorado Lagoon	Marina del Rey Harbor
	Sepulveda Canyon Channel	Dominguez Channel Estuary	Oxnard Drain
	Calleguas Creek	Los Angeles Harbor	Santa Monica Bay
	Conejo Creek	Los Beach Harbor	
Santa Ana (8)	San Diego Creek	Upper Newport Bay	Lower Newport Bay

RUSLE2 REQUIREMENTS

- **CHALLENGES/SOLUTIONS**

- NO CONSISTENT RUSLE2 MODEL
 - PUBLICLY AVAILABLE
 - WEB-BASED PREFERRED
 - COMPREHENSIVE DATA SETS/CUSTOMIZABILITY
- RUSLE2 CANNOT MODEL PASSIVE TREATMENT OR USE OF SEDIMENT BASINS
 - NEED ALTERNATIVE ACCEPTANCE STANDARDS FOR PROJECTS EMPLOYING THESE CONTROLS
- NEED GUIDELINES, STANDARDS, AND TRAINING (QSDs AND REGIONAL BOARD STAFF)

WRAP-UP/REMAINDERS



THE REMAINDERS

- ROUTINE MAINTENANCE PROJECTS (ORDER II.B.1)
 - REGULATORY TRANSITION PERIOD
 - IMPERVIOUS/PERVIOUS CHARACTERIZATION
 - RESIDENTIAL LOT STABILIZATION
 - AUTOMATIC APPROVAL OF NOT
 - FORMAL INACTIVE STATUS
- 



THANK YOU!

CASQA

CASQA@CASQA.ORG





20
YEARS

50 YEARS *of the* CLEAN WATER ACT