Scrap Metal Permit Training

Sector-Specific General Permit for Storm Water Runoff Associated with Industrial Activities from Scrap Metal Recycling Facilities within the Santa Ana Region (Order No. R8-2018-0069)

Christine Silken
Michelle Beckwith
Santa Ana Regional Water Quality Control Board

CALIFORNIA
Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS

Please Silence your Electronic Devices

Today's Agenda

- Lyris List Instructions
- Introduction
- Significant Modifications
- Permit Elements
- SMARTS

- Lunch Break

- Exam

Lyris List Instructions

https://www.waterboards.ca.gov/resources/email_subscriptions/reg8_subscribe.html

Region 8 Email Subscription Form

Instructions:

1. Enter your Email Address
2. Enter your Full Name (ex: firstname lastname)
3. Check the boxes below to subscribe to our email lists. You may select as many lists as you wish. Our objective is to periodically email information about these topics to the members of these lists.
4. After making your selection(s), please click on the Subscribe button.
5. An email confirmation notice will be sent to you. Please reply to this message in order to be added to the email list.

Signup Details

Email Address:

(*required*)

Your Full Name:

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(*e.g.: John Smith*)

Click Subscribe Button: Subscribe

LYRIS LIST INSTRUCTIONS (CONT)

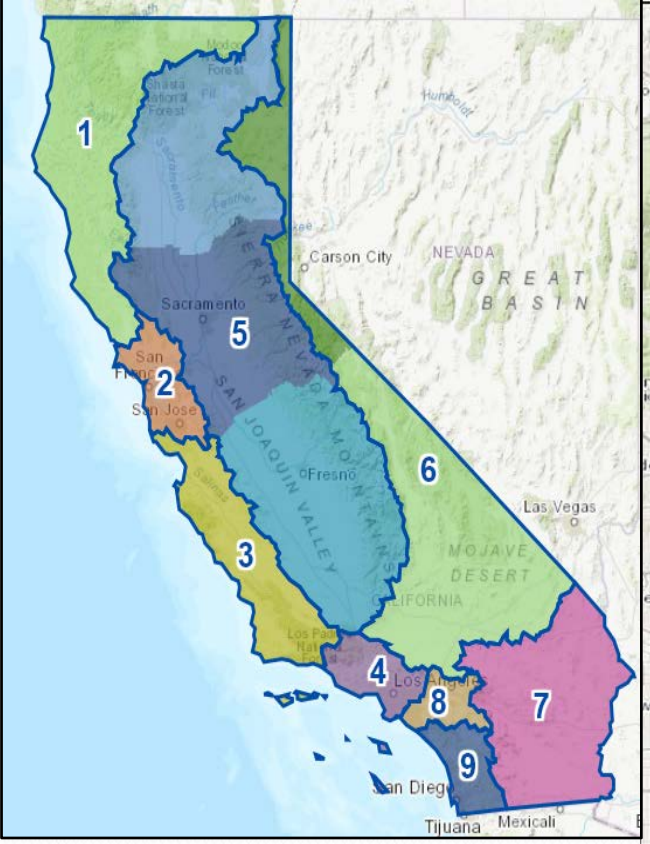
Choose one or more email lists:

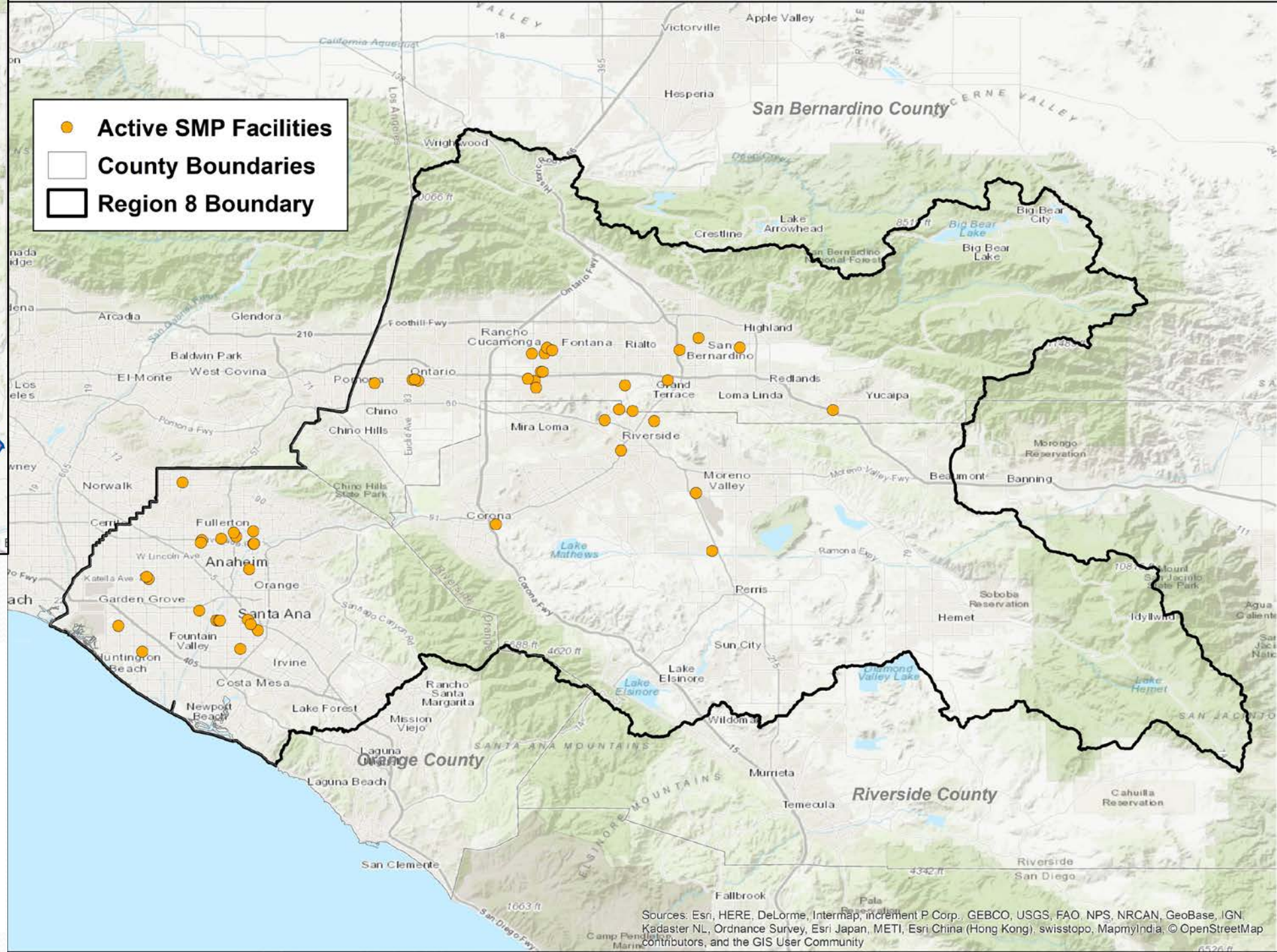
- ☐ Agricultural Waiver Program
- ☐ Basin Planning
- ☐ Board Meetings
- ☐ Desalination Facility
- ☐ Enforcement Actions
- ☐ Impaired Waters 303(d) List
- ☐ Perchlorate
- ☐ Septic Systems
- ☐ Storm Water – Orange County Municipal
- ☐ Storm Water – Riverside County Municipal
- ☐ Storm Water – San Bernardino County Municipal
- ☑ Storm Water – Scrap Metal Permit
- ☐ TMDL Newport Bay Copper - Metals
- ☐ TMDL Orange County
- ☐ TMDL Riverside and San Bernardino Counties

INTRODUCTION

- Adoption Date: October 19, 2018
- Effective Date: December 19, 2018

Facilities must recertify under 2018 Scrap Metal Permit (SMP) by December 19th





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Significant Modifications

- Volume Reduction Best Management Practice (BMP) Documentation:
  - Dischargers who implement volume reduction BMPs shall update their SWPPP and identify the credit percentage.

- Revision of Low Impact Development (LID) BMP Sampling Protocols:
  - Dischargers who implement LID BMPs are to collect samples before and after the storm water comes in contact with the LID BMPs.
  - Dischargers who appropriately implement percolation or other infiltration LID-type BMPs are required to collect samples prior to the storm water entering the LID BMPs.

- Scrap Metal – Qualified SWPPP Practitioner (SM-QSP) Designee Status Removal:
  - Dischargers are no longer authorized to designate an individual at their facility to conduct SM-QSP responsibilities.

Significant Modifications (cont)

- Group Monitoring Program Removal:
  - The Group Monitoring element has been removed from the permit.

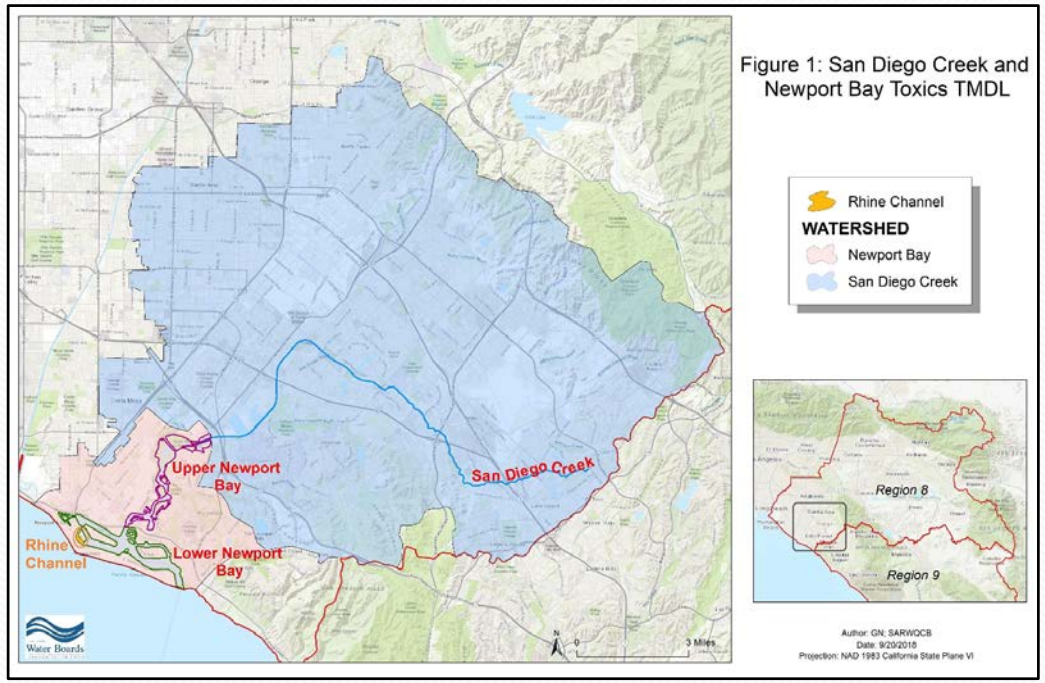
- Storm Event Sampling Protocols:
  - Dischargers shall collect and analyze storm water samples from two qualifying storm events from July 1 to December 31 and two qualifying storm events from January 1 to June 30.

- Constituent Removal:
  - Table 2: Flow, Silver, Arsenic, and Toxicity

- Quality Assurance Program Plan (QAPP):
  - QAPP elements merged into the Monitoring and Reporting Program (MRP)

Significant Modifications (cont)

- Existing TMDLs and 303(d) listed Waterbodies (Attachment B):
  - Lists the impaired waterbodies and TMDL boundaries applicable to Scrap Metal Permit facilities.



- Terminology Updates:
  - Advanced Media Filtration → Advanced Treatment
  - Qualified SWPPP Developer → Scrap Metal Qualified SWPPP Developer (SM-QSD)
  - Qualified SWPPP Practitioner → Scrap Metal Qualified SWPPP Practitioner (SM-QSP)

Training & Qualification Req's

Current Scrap Metal Qualified SWPPP Developers and Scrap Metal Qualified SWPPP Practitioners MUST retake the applicable certification exam regardless of when they originally became certified.

SM-QSD: Develop a Storm Water Pollution Prevention Plan

SM-QSP: Implement the Storm Water Pollution Prevention Plan

Certified Person: Collects and handles storm water samples

Scrap Metal Permit Elements

Authorized Non-Storm Water Discharges:

- Uncontaminated condensate from refrigeration units, air conditioning, or compressor units
- Landscape irrigation
- Emergency fire fighting flows

***All are authorized as long as the flow does not collect pollutants prior to the discharge leaving the facility.

Scrap Metal Permit Elements (cont)

Storm Water Pollution Prevention Plan (SWPPP)

- Facility Information:
  - Include relevant facility information.
  - Ensure to identify the SM-QSD and SM-QSP along with their certification numbers.

- Preventative Measures:
  - Document all preventative measures including but not limited to LID BMPs and volume reduction BMPs (including credits).
  - Develop and implement a Rain Event Action Plan (REAP).
  - Employee training within 30 days of employment and at least annually.

Scrap Metal Permit Elements (cont)

Storm Water Pollution Prevention Plan (SWPPP)

Volume Reduction BMP and Credits Example:

- A non-polluting roof covers 25% of outdoor industrial activities

  - Numeric Action Level for Chemical Oxygen Demand: 120 mg/L
  - Facility's annual average for Chemical Oxygen Demand: 106.9 mg/L

  - 25% credit: 106.9 mg/L x 0.25 = 26.6 mg/L
  - 106.9 mg/L – 26.6 mg/L = 80.2 mg/L

  - Facility's annual average with credit applied: 80.2 mg/L
  - 80.2 mg/L < 120 mg/L

Scrap Metal Permit Elements (cont)

Storm Water Pollution Prevention Plan (SWPPP)

- Mitigative Measures:
  - Document all mitigative measures.

- Site Map:
  - Including but not limited to facility boundaries, storm water drainage areas, collection and conveyance systems, discharge points, etc.

Scrap Metal Permit Elements (cont)

Storm Water Pollution Prevention Plan (SWPPP)

- 303(d) Listed Waterbodies and TMDL Assessment:
  - Attachment B
  - Must identify specific control measures for the 303(d) listed and/or TMDL pollutant.

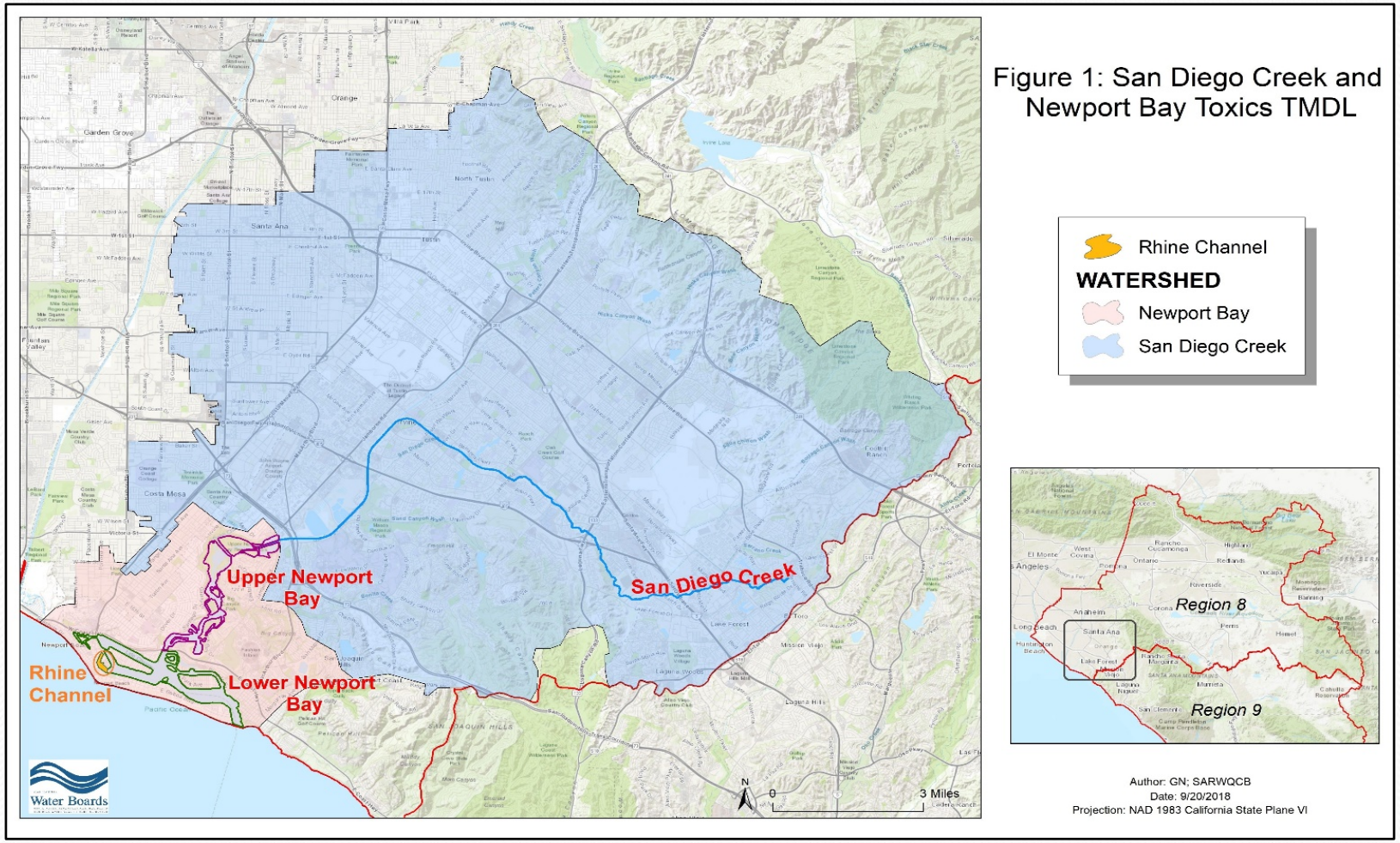
Scrap Metal Permit Elements (cont)

303(d) Listed Waterbody and TMDL Assessment

TMDL	Impaired Waterbody/Watershed	Pollutants
San Diego Creek and Newport Bay Toxics TMDL	San Diego Creek (freshwater)	Cadmium Copper Lead Zinc
	Upper Newport Bay (saltwater)	Cadmium Copper Lead Zinc
	Lower Newport Bay (saltwater)	Copper Lead Zinc
	Rhine Channel area of Lower Newport Bay (saltwater)	Chromium Mercury Copper Lead Zinc

Scrap Metal Permit Elements (cont)

303(d) Listed Waterbody and TMDL Assessment



Scrap Metal Permit Elements (cont)

Storm Water Pollution Prevention Plan (SWPPP)

- Monitoring and Reporting Program:
  - Including but not limited to a Quality Assurance Program Plan (QAPP)
  - QAPP must be consistent with SWAMP guidelines.

SWAMP
Surface Water
Ambient Monitoring
Program

Scrap Metal Permit Elements (cont)

Compliance Option 1

- Phased approach
- Comply with Numeric Action Levels (NALs)
- Table 1a

Compliance Option 2

- Non-Phased approach
- Comply with facility-specific Numeric Effluent Limits (NELs)
  - Must provide Regional Board with receiving water hardness data
- Table 1b

Scrap Metal Permit Elements (cont)

Compliance Option 1

Table 1a: Numeric Action Levels (NALs)

Constituent	Units	Action Level (Annual Average)
pH	pH Units	< 6.5 or > 8.5
Turbidity	NTU	250
Specific Conductance	µmhos/cm or µsiemen/cm	2000
Oil and Grease	milligrams/liter	15
Zinc (total recoverable)	micrograms/liter	160
Lead (total recoverable)	micrograms/liter	122
Aluminum (total recoverable)	micrograms/liter	750
Copper (total recoverable)	micrograms/liter	18.9
Iron (total recoverable)	micrograms/liter	1000
Chemical Oxygen Demand	milligrams/liter	120

Scrap Metal Permit Elements (cont)

Compliance Option 1 Triggers

- If a single sample exceeds the NAL by two times the specified Permit limit (except pH), it is considered an exceedance.
- If the pH value is less than 6.5 or more than 8.5, it is considered an exceedance.
- If the annual average (geometric mean except for pH) of a constituent exceeds the NAL, it is considered an exceedance.
- Exceedances trigger additional steps.

Scrap Metal Permit Elements (cont)

Compliance Option 1 Phase Advancement (Phase I to II)

- Evaluate the monitoring results from July 1st through June 30th.
- If there was an exceedance (annual or twice the NAL):
  - Immediately reassess Phase I BMPs to identify the sources of the exceedances.
  - Determine if additional BMPs, volume reduction BMPs, or treatment controls are necessary to address the pollutant source.

Scrap Metal Permit Elements (cont)

Compliance Option 1 Phase Advancement (Phase I to II)

- Within 30 days of the Phase I exceedance determination:
  - Develop and submit a Phase II Corrective Action Plan (CAP) for Regional Board approval.
  - The CAP shall identify the source of the exceedance, proposed control measures, and expected discharge quality once the plan is implemented.
  - The facility may need to consider advanced treatment.

- Within 90 days of approval of the CAP, the permittee must implement the CAP.

Scrap Metal Permit Elements (cont)

Compliance Option 1 Phase Advancement (Phase II to III)

- Evaluate the monitoring results from July 1st through June 30th.

- If there was an exceedance (annual or twice the NAL):
  - Immediately reassess Phase II BMPs to identify the sources of the exceedances.

Scrap Metal Permit Elements (cont)

Compliance Option 1 Phase Advancement (Phase II to III)

- Within 30 days of the Phase II exceedance determination:
  - Develop and submit a Phase III Corrective Action Plan (CAP) for Regional Board approval.
  - The CAP shall include an evaluation of existing treatment controls and O&M procedures.
  - The CAP shall also include additional reasonable source control measures.

❖If the NALs are still exceeded after a Phase III CAP has been approved and implemented, the discharger is required to reevaluate the CAP and propose modifications to the plan which requires additional approval.

Scrap Metal Permit Elements (cont)

Compliance Option 2

- Dischargers who comply with Option 2 are required to submit receiving water hardness data.
- Based on the hardness data, Regional Board staff will determine facility-specific NELs.
- Exceedances of NELs is a violation of the Scrap Metal Permit.

Scrap Metal Permit Elements (cont)

Monitoring and Reporting Program (MRP)

- Each facility shall develop and implement a MRP which is incorporated into the SWPPP.
- The MRP shall be in compliance with the SWAMP Quality Assurance Program Plan (QAPP).
- MRP shall consist of:
  - Preparation of sampling
  - Conduct sampling
  - Evaluation of sample results
  - Recordkeeping and reporting

Scrap Metal Permit Elements (cont)

Monitoring and Reporting Program (MRP)

- Visual Inspections:
  - Each month the SM-QSP shall conduct visual inspections of the industrial areas of the permitted facility and record the findings.
  - Must be conducted at least 15 days apart.

Scrap Metal Permit Elements (cont)

Monitoring and Reporting Program (MRP)

- Runoff Sampling and Analysis:
  - Collect at least four samples of runoff per year from qualifying storm events from each discharge point.
  - Samples to be collected from two qualifying storm events between July 1 and December 31 and from two qualifying storm events between January 1 and June 30.
  - Samples shall be collected at the end of the storm water conveyance system before it comingles with other flows.
  - Certified Person to collect and handle the samples.
    - A SM-QSP or SM-QSD with appropriate training and approval from the Executive Officer could also be considered as a Certified Person.

Scrap Metal Permit Elements (cont)

Monitoring and Reporting Program (MRP)

- Runoff Sampling and Analysis:
  - Dischargers who implement LID BMPs are to collect samples before and after the storm water comes in contact with the LID BMPs.
  - Dischargers who appropriately implement percolation or other infiltration LID-type BMPs are required to collect samples prior to the storm water entering the LID BMPs.

- Recordkeeping:
  - Maintain paper or electronic copy of all storm water information for at least five years.

Scrap Metal Permit Elements (cont)

Monitoring and Reporting Program (MRP)

- Runoff Sampling and Analysis:
  - Field Measurements:
    - pH
    - Turbidity
    - Specific Conductance

    } via calibrated portable instrument
  - Analyze all other constituents in Table 2 via an ELAP certified lab.

https://www.waterboards.ca.gov/drinking_water/certlic/labs/

Scrap Metal Permit Elements (cont)

Table 2

Constituents	Units	Type of Sample	Frequency	Analyzing Location
pH	pH Units	Grab	4 times/year	Field
Turbidity	NTUs	Grab	4 times/year	Field
Specific Conductance	µmhos/cm	Grab	4 times/year	Field
Oil and Grease	mg/L	Grab	4 times/year	Laboratory
Total Petroleum Hydrocarbons	mg/L	Grab	4 times/year	Laboratory
Zinc (total recoverable)	ug/L	Grab	4 times/year	Laboratory
Lead (total recoverable)	ug/L	Grab	4 times/year	Laboratory
Aluminum (total recoverable)	ug/L	Grab	4 times/year	Laboratory
Copper (total recoverable)	ug/L	Grab	4 times/year	Laboratory
Iron (total recoverable)	ug/L	Grab	4 times/year	Laboratory
Cadmium (total recoverable)	ug/L	Grab	4 times/year	Laboratory
Nickel (total recoverable)	ug/L	Grab	4 times/year	Laboratory
Chemical Oxygen Demand	mg/L	Grab	4 times/year	Laboratory
PCBs	ug/L	Grab	1st year after permit adoption (first storm sample)	Laboratory

Scrap Metal Permit Elements (cont)

Table 3

Constituent	Units	Test Method	Minimum Level
pH	pH Units	EPA 9040/SM 4500H or field test with a calibrated portable instrument	±0.1
Turbidity	NTUs	EPA 180.1/SM 2130B or field test with a calibrated portable instrument	0.5
Specific Conductance	µmhos/cm	EPA 120.1/SM 2510-B or field test with calibrated portable instrument	1.0
Oil and Grease	mg/L	EPA 1664-HEM	5.0
Total Petroleum Hydrocarbons	mg/L	EPA 1664-SGT-HEM or 8015B	5.0
Zinc (total recoverable)	ug/L	EPA 200.8	5.0
Lead (total recoverable)	ug/L	EPA 200.8	1.0
Aluminum (total recoverable)	ug/L	EPA 200.8	1.0
Copper (total recoverable)	ug/L	EPA 200.8	1.0
Iron (total recoverable)	ug/L	EPA 200.8	1.0
Cadmium (total recoverable)	ug/L	EPA 200.8	1.0
Nickel (total recoverable)	ug/L	EPA 200.8	1.0
Chemical Oxygen Demand	mg/L	SM 5220C or SM 5220D	10.0
PCBs	ug/L	EPA 608	0.5

Scrap Metal Permit Elements (cont)

Single Discharge Points

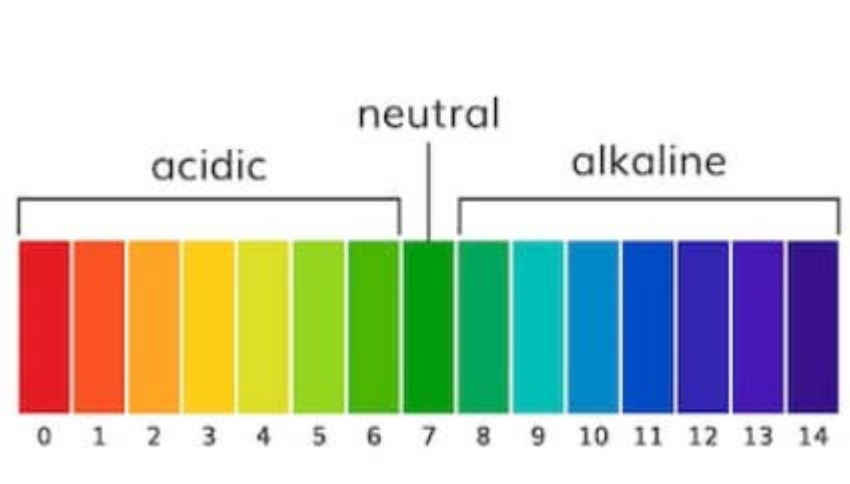
- For pH, calculate the arithmetic mean.
- For all other parameters, calculate the geometric mean of each parameter.

Scrap Metal Permit Elements (cont)

Results Analysis Example – Arithmetic Mean (pH)

- Add the sample results and divide by the number of sampled storm events:

$$\frac{6.4 + 6.9 + 6.8 + 6.6}{4} = 6.675$$



Scrap Metal Permit Elements (cont)

Results Analysis Example – Geometric Mean

- Multiply sample results and apply root of the number of sampled storm events:

$$\sqrt[4]{95 \times 90 \times 180 \times 85} = 106.9$$

$$(95 \times 90 \times 180 \times 85)^{1/4} = 106.9$$

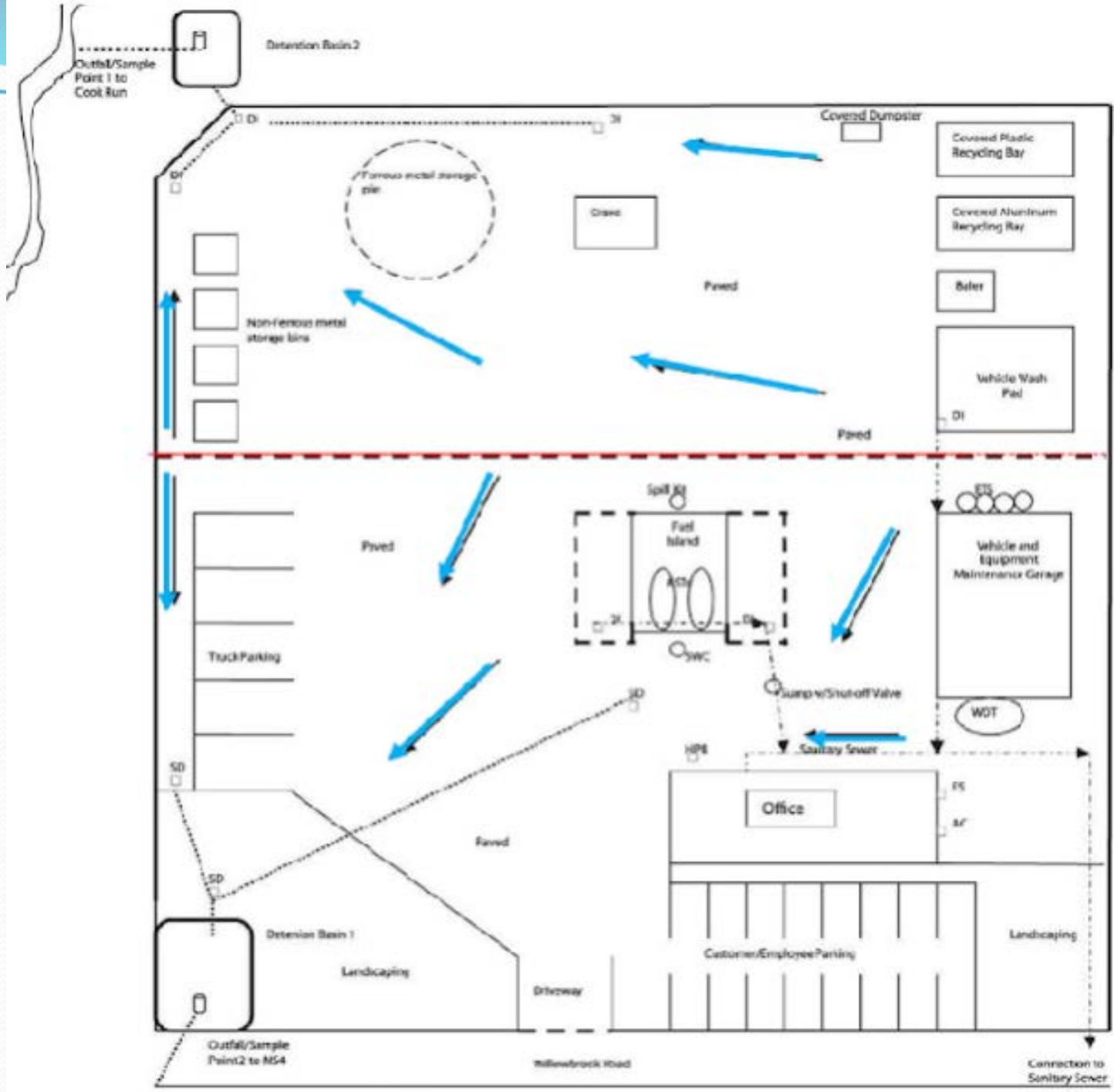
Scrap Metal Permit Elements (cont)

Multiple Discharge Points

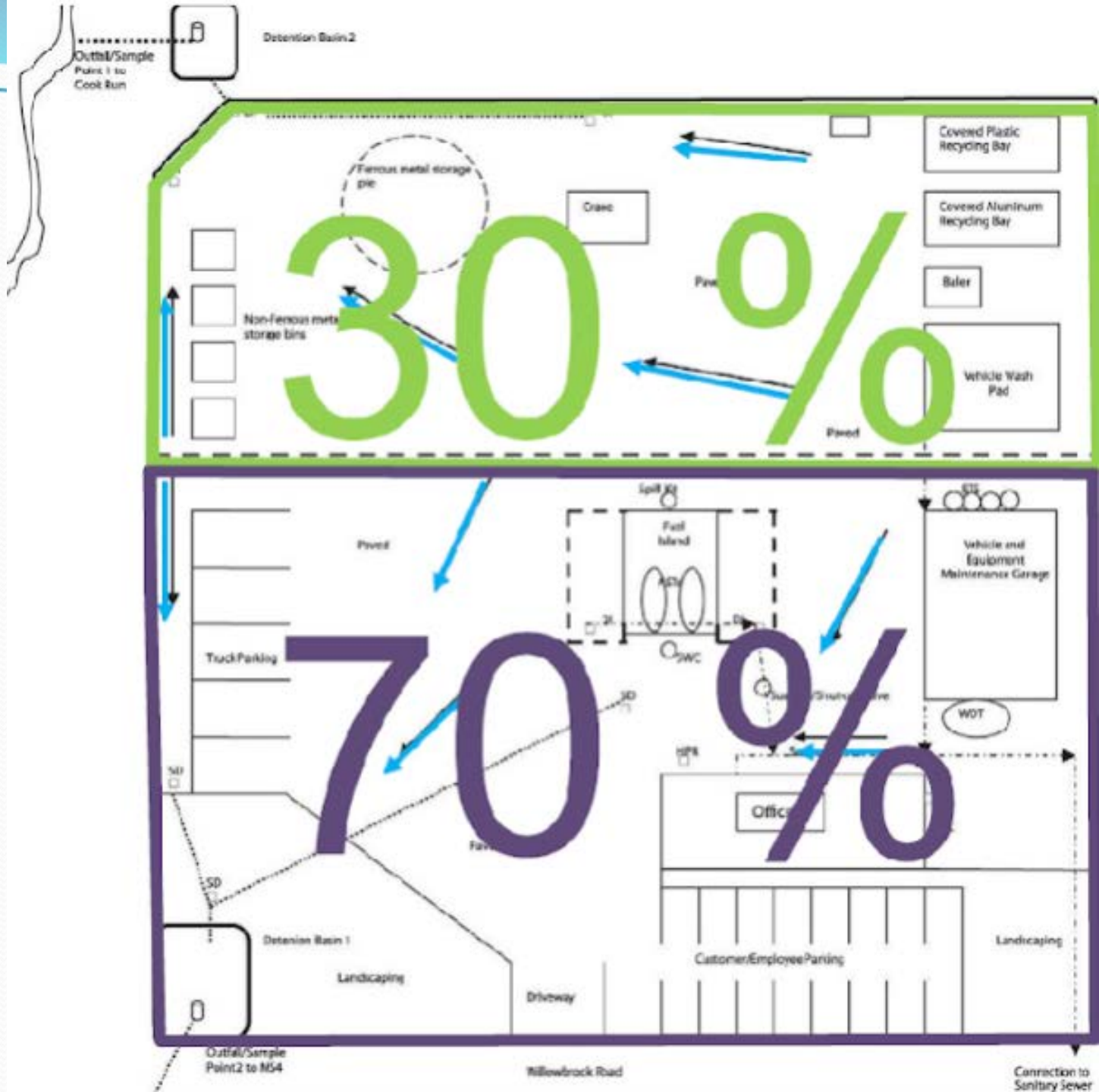
Use the relative tributary area for each discharge point to determine the area-weighted averages of arithmetic mean (pH only) or geometric means for multiple discharge points.

- Determine the number of points where surface flows leave the site.
- If there are multiple points, determine the areas that drain to each point.
- Determine the percent of the site each area covers.
- Multiply the percentage determined by the arithmetic mean (pH) or geometric means of the appropriate discharge point.

Scrap Metal Permit Elements (cont)



Scrap Metal Permit Elements (cont)



Scrap Metal Permit Elements (cont)

Multiple Discharge Points

	Discharge Point 1	Discharge Point 2
Relative Tributary Area	**30%**	**70%**
Analysis Results from Sample 1	95 mg/L	103 mg/L
Analysis Results from Sample 2	90 mg/L	117 mg/L
Analysis Results from Sample 3	180 mg/L	98 mg/L
Analysis Results from Sample 4	85 mg/L	106 mg/L
Annual Average	106.9 mg/L	105.8 mg/L
Annual Weighted Average	106.9 x 0.30 = 32.07	105.8 x 0.70 = 74.06

Scrap Metal Permit Elements (cont)

Multiple Discharge Points

Combined Area-Weighted Annual Average:

32.07 mg/L + 74.06 mg/L = 106.13 mg/L

Scrap Metal Permit Elements (cont)

Annual Report

- Submit via SMARTS by August 1 of each year.
- Summarize evaluation of all sampling and analysis results, including monthly visual observations.
- Identify all additional BMPs or other corrective action methods implemented at the facility.
- Summarize all compliance activities, including any new or proposed treatment controls.

SMARTS


Stormwater Multiple Application and Report Tracking System
SMARTS

SMARTS (CONT)

Legally Responsible Person (LRP):

- A responsible corporate officer in charge of principal business functions.
- Certifies and submit Permit Registration Documents (PRDs) via SMARTS.
- Only person authorized to recertify permit coverage.

Duly Authorized Representative (DAR):

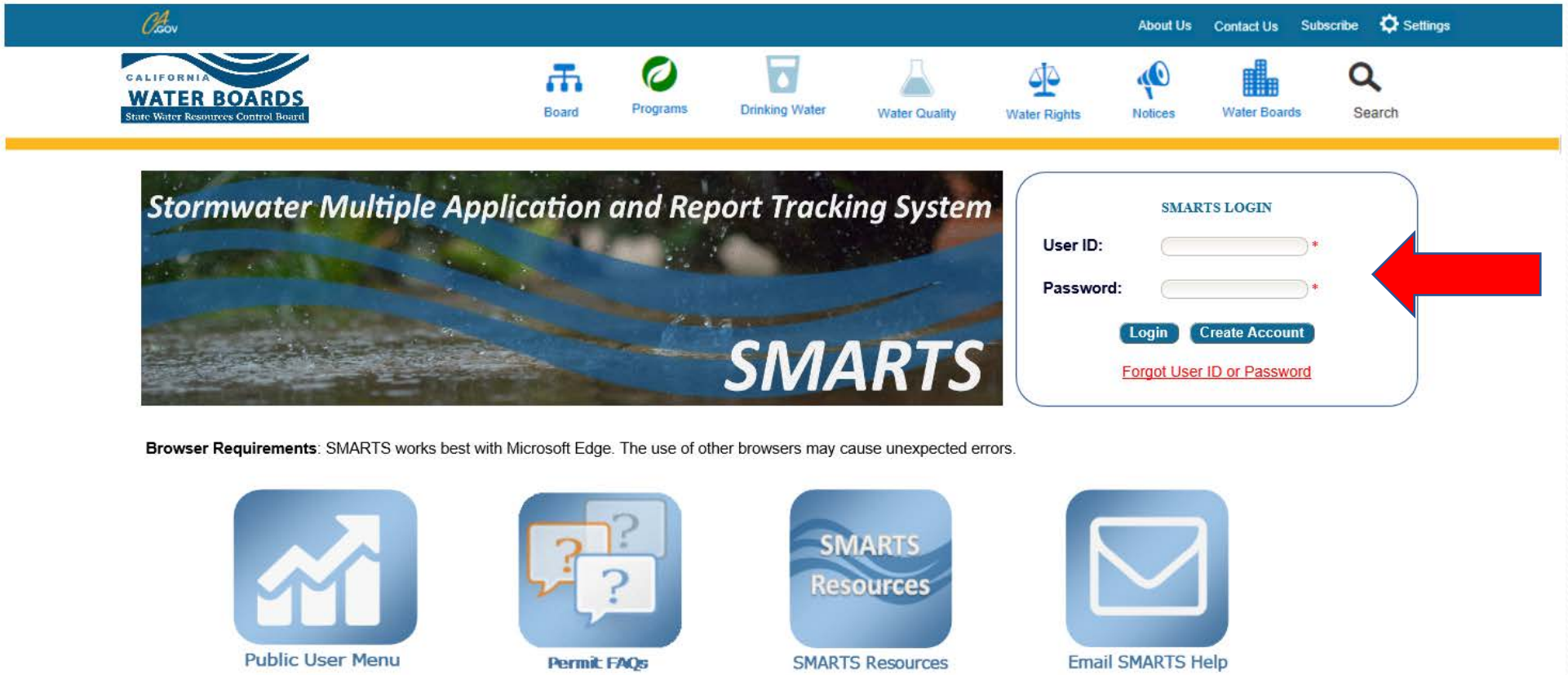
- A person who has responsibility over the overall operation of the regulated facility such as a manager, EH&S, operator.
- Can certify and submit information (except PRDs).

Data Entry Person (DEP):

- Designated by the LRP to enter information but cannot certify the information.

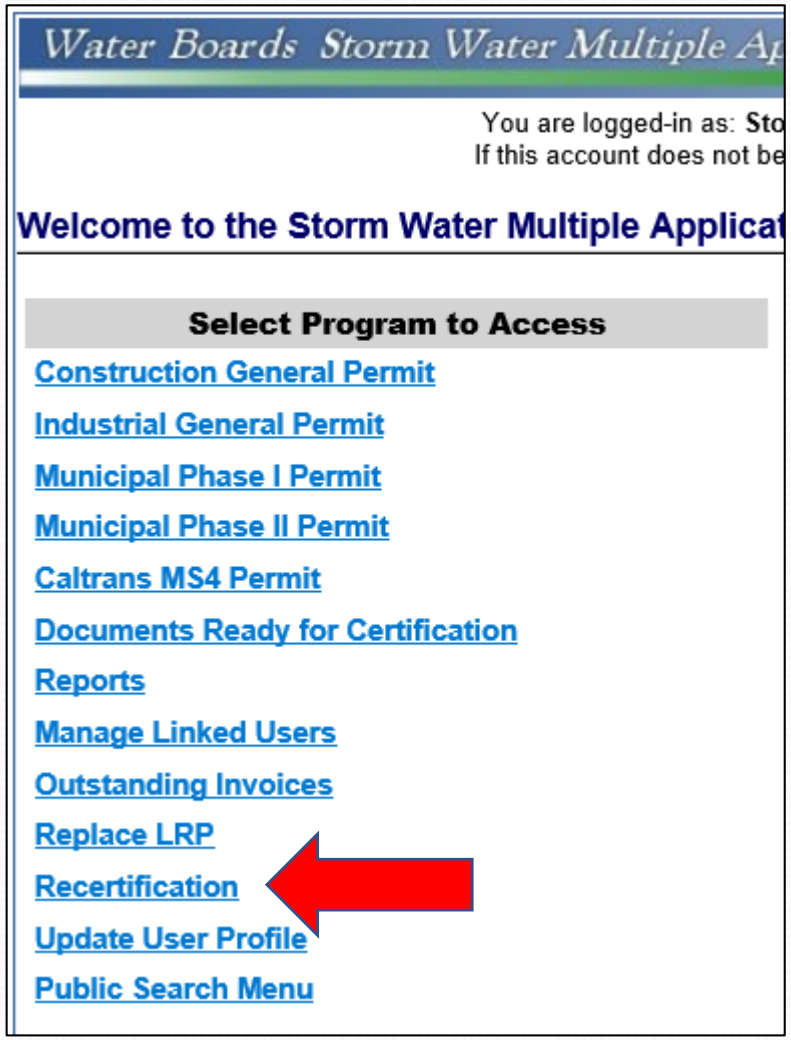
SMARTS (CONT)

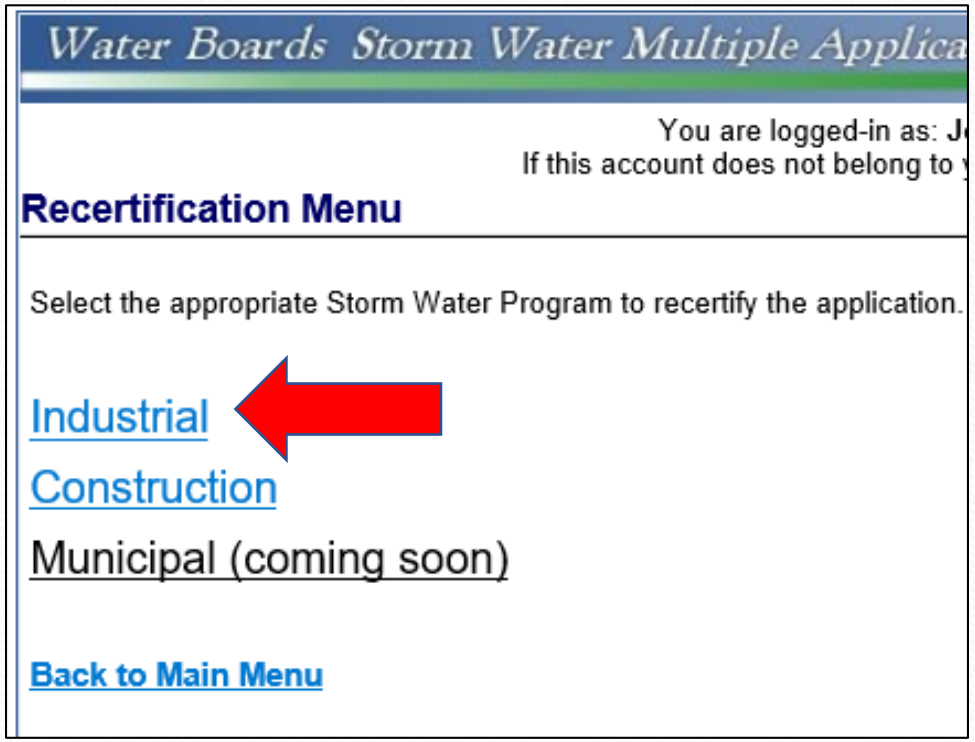
Recertification:



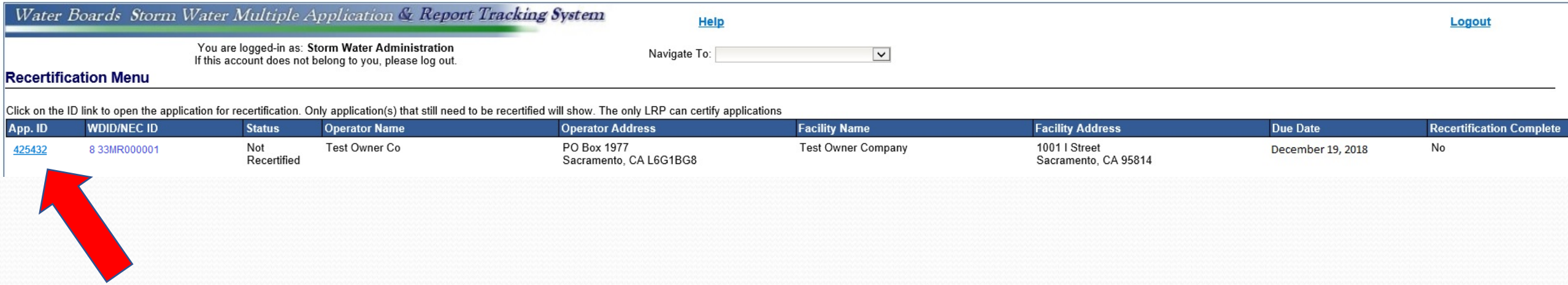
LRP must log into SMARTS using their own username and password.

SMARTS (CONT)


Water Boards Storm Water Multiple Ap
You are logged-in as: Sto
If this account does not be
Welcome to the Storm Water Multiple Applicat
Select Program to Access
Construction General Permit
Industrial General Permit
Municipal Phase I Permit
Municipal Phase II Permit
Caltrans MS4 Permit
Documents Ready for Certification
Reports
Manage Linked Users
Outstanding Invoices
Replace LRP
Recertification
Update User Profile
Public Search Menu


Water Boards Storm Water Multiple Applica
You are logged-in as: J
If this account does not belong to
Recertification Menu
Select the appropriate Storm Water Program to recertify the application.
Industrial
Construction
Municipal (coming soon)
Back to Main Menu

SMARTS (CONT)



Recertification

- SM-QSD
- Option 1 or Option 2
- TMDL Determination
- Upload revised SWPPP (and site map)

COMPLETE RECERTIFICATION PROCESS BY DECEMBER 19th

SMARTS (CONT)

Ad Hoc Reports:

- Submit Ad Hoc reports no later than 30 days from receiving the laboratory reports.

Annual Report:

- Due by August 1st of each year

SIGNIFICANT MODIFICATIONS (RECAP)

- Volume Reduction BMP Documentation
- Revision of LID BMP Sampling Protocols
- SM-QSP Designee Status Removal
- Group Monitoring Program Removal
- Storm Water Sampling Protocols
- Constituent Removal
- Quality Assurance Program Plan
- Terminology Updates
- 303(d) Listed Waterbodies & TMDL Boundaries (Attachment B)

Training and Exam Sessions

Location	Date	Training Session	Exam Session
City Council Chamber 5275 Orange Avenue Cypress, CA 90630	10/30/2018	9:30am – 11am	12pm – 3pm
Council Chambers 10500 Civic Center Drive Rancho Cucamonga, CA 91730	11/5/2018	9:30am – 11am	12pm – 3pm
Community Center Great Oaks Hall (Rooms A & B) 14250 Peyton Drive Chino Hills, CA 91709	11/6/2018	9:30am – 11am	12pm – 3pm
City Council Chamber 5275 Orange Avenue Cypress, CA 90630	11/14/2018	9:30am – 11am	12pm – 3pm

Christine Silken
Christine.Silken@waterboards.ca.gov

Michelle Beckwith
Michelle.Beckwith@waterboards.ca.gov

Lunch Break

For those who are taking the exams, please return by 12 pm.

Bring a pencil and valid State issued ID.

SM-QSD & SM-QSP Exams

Exams are open book however use of electronic devices is ***not*** allowed.