# PHASE II SMALL MS4 PERMIT WORKSHOP



Ali Dunn, Environmental Scientist
Eric Berntsen, Staff Environmental Scientist
Patrick Otsuji, Staff Environmental Scientist
State Water Resources Control Board
Division of Water Quality
May 2013



### Overview

- Workshop Goals
- Permit Background
- Permit Requirements Overview and Resources
- Question and Answer Session

### Workshop Goals



# Provide program requirement overview



Provide program element guidance and available resources



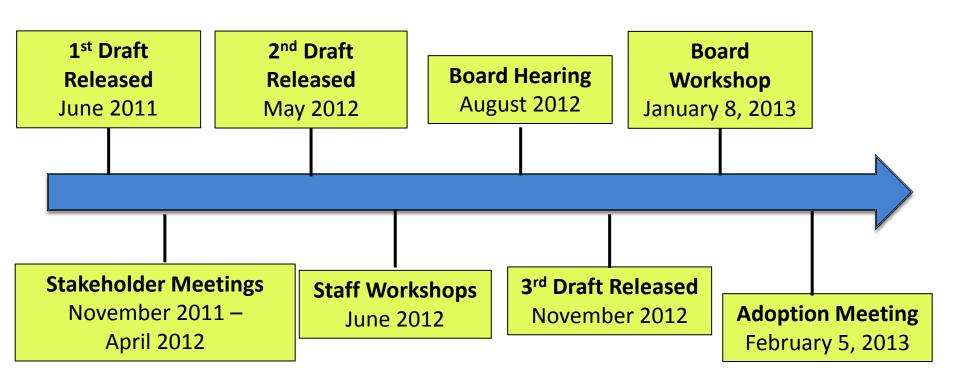
Break down more complex requirements

### Background - Storm Water Regulation



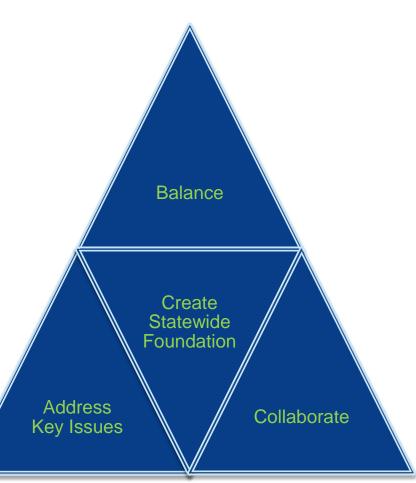
 Discharge of pollutants to water of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit

### Background - Permit Schedule



### Background - Stakeholder Process

- Create statewide foundation
- Collaborate with Regional Boards, Small MS4s, Nongovernmental organizations
- Address stakeholder key issues and concerns
- Balance water quality and costeffectiveness



### Background - Objectives

- 1) Focus on water quality issues after projects are built
  - Post-Construction
- Focus on cost-effective requirements that provide multiple benefits
  - Low Impact Development
- Target high priority water bodies
  - Areas of Special Biological Significance (ASBS)
  - Total Maximum Daily Loads (TMDLs)



### Permit Requirements

- Application Requirements
- Program Management
- Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction
- Pollution Prevention/Good Housekeeping
- Post-Construction
- Monitoring
- Program Effectiveness and Assessment



# **Application Requirements**

- Notice of Intent (NOI)
- Permit Boundary Map
- Guidance Document
- Applicable Fee



### **General Process**

STEP 1: Fill out the NOI information, upload the guidance document and Phase II permit boundary map online via SMARTS.

STEP 2: Once the NOI is complete and the guidance document and boundary map are uploaded, make sure it is the LRP\* that submits the NOI online (this is considered certification). Mail in appropriate fee.

STEP 3: Submit wet signature of any LRP or DAR\*\* that may submit a report to the State Water Board prior to submittal/certification of annual reports.

<sup>\*</sup> LRP – Legally Responsible Person

<sup>\*\*</sup>DAR - Duly Authorized Representative

### What is SMARTS?

### Purpose:

Provide a platform where dischargers, regulators, and the public can enter, regulate, and/or comment on storm water data including NOIs, NOTs, compliance, and monitoring data.

- Internet-based
- Available 24/7
- Reports
  - SWRCB/RWQCB prioritize regulatory tasks (i.e. inspections, view trends in compliance, provide data to the Legislature).
  - Public reports NOI, Inspections, Violations, and Enforcement data.

### **SMARTS Users**

- State & Regional Water Board Staff
- External Users
  - Discharger or Permittee
  - Duly Authorized Representative
  - Data Entry Person
  - General Public

### User Rights

Discharger

Duly Authorized Representative

**Data Entry Person** 

**General Public** 

### **Application Process**

- Register for SMARTS Account
- Link Duly Authorized Representatives or Data Entry Persons
  - Optional
- Start a New Notice of Intent
- Upload Attachments
  - Guidance Document
  - Maps
- Certify and submit NOI

### Create a SMARTS Account

### https://smarts.waterboards.ca.gov

Water Boards Storm Water Multiple Application & Report Tracking System 2

#### Welcome to Storm Water Multiple Application and Report Tracking System - SMARTS!

The Storm Water program regulates storm water discharges from locations such as industrial facilities, construction sites, and small linear projects. The Storm Water program is also responsible for processing, reviewing, updating, terminating Notices of Intent (NOIs), annual reports, and maintaining the billing status of each discharger.

SMARTS has been developed to provide an online tool to assist dischargers in submitting their NOIs, NECs, NOTs, and Annual Reports, as well as, viewing/printing Receipt Letters, monitoring the status of submitted documents, and viewing their application/renewal fee statements. The system will also allow the Regional Board and State Board staff to process and track the discharger submitted documents.

To submit the Industrial Annual Report in SMARTS, please fill out the <u>LRP Registration</u>
Form and mail it to:

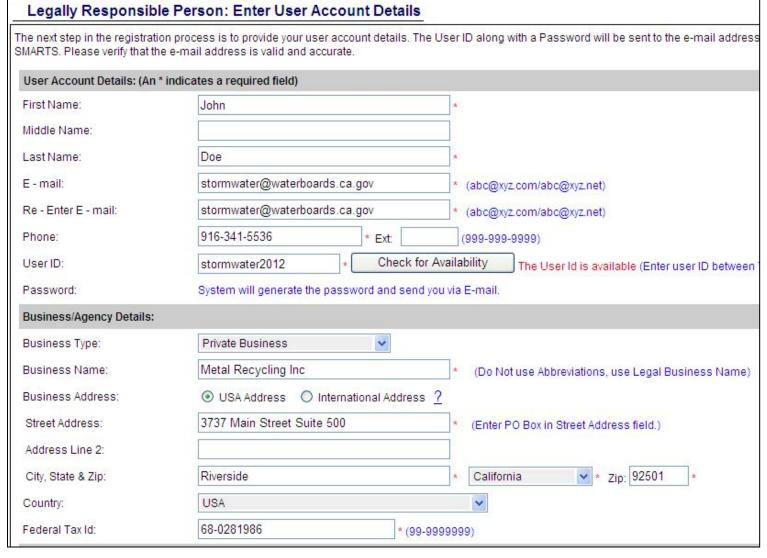
SWRCB Storm Water Section PO Box 1977 Sacramento, CA 95812-1977

SMARTS is a user account and password protected system where a valid user account and password is needed to access the system. To create an account, please click the "Sign Up" button on the right side of the screen.

THE REAL PROPERTY.	TS LOGIN st Used in Internet Explorer
Des	st osed in internet Explorer
User I	D:
Passw	vord:
Logii	n
Maria	Lange Chart have
_	Jser, Start here: gn Up Button Help
Eorgo	t User ID or password?
Click h	
200000000000000000000000000000000000000	
	c Access to NOI, SWPPPs & al Reports data

### Select the Account Type

Entry	st step in the user registration process is the selection of user account type that you want to establish. SMARTS currently alloperson (DEP) and Approved Signatory (AS). Click on the following links to review the definitions of LRP, DEP and AS User accurated to the count Definitions of LRP, DEP and AS User accurated to the count Definitions.						
Plea	e select one of the following:						
0	Legally Responsible Person (LRP): I have read the definition of LRP and wish to establish a LRP User Account.						
0	Data Entry Person (DEP): I have read the definition of DEP and wish to establish a DEP User Account.						
0	Approved Signatory (AS): I have read the definition of AS and wish to establish a AS User Account.						
If you	nave any questions or for further assistance,please contact SMARTS Help Desk at:1-866-563-3107 Monday thru Friday 8:00A						
	Back to Previous Step Continue to Next Step						



# Enter User Details

dentification Verification	Security Questions:			
Please select and answer	the Indentification Verificati	on Security questions below. Th	iese questions w	vill be asked in the event you misplace yo
ecurity question:	What is your moth	er's maiden name?	~	* *
nswer:	Smith	*		
ecurity question:	What city were you	ı born?	~	*
nswer:	Riverside	×		
ecurity question:	What was your Hi	gh School Mascot?	~	*
nswer:	Lion	×		
ecurity question:	What is the name	of your favorite childhood friend	?	×
nswer:	Steve	*		
ecurity question:	What was the cold	or of your first car?	~	* *
nswer:	Black	*		
Server Security Letters:				
evaluate the information su	ibm <mark>itt</mark> ed. Based on my inquiry of th	ne person or persons who manage the s	irection or supervisior system, or those pers	re in in accordance with a system designed to assure sons directly responsible for gathering the informati formation, including the possibility of fine and impris
equivalent of my handwritte wish to delegate such auth signature from unauthorize	en signature. My signature on this f nority, I will do so formally in writing	form certifies that my electronic signatur and electronically notify the State Water tate Water Board, within two business da	re is for my own use, t r Board using SMART:	tronically certifying contains my signature. I underst that I will keep it confidential, and that I will not dele IS2 of such delegation within 10 days of the delegal suspect that my electronic signature has been lost, s
E 22				
If you have any questions of	r for further assistance, please co	ntact SMARTS Help Desk at: 1-866-563-	-3107 Monday thru Fri	riday 8:00AM - 5:00PM, or email smarts@waterboar

#### Acknowledgement

This completes your user registration process: Your user account has been successfully created in SMARTS.

Your User ID, Password, and instructions for logging into SMARTS have been sent to you via e-mail.

Please check your e-mail account and log into SMARTS using the User ID and Password provided.

If the e-mail is not received within a reasonable amount of time, please contact the Storm Water Help Desk at the phone number provided below.

To log into SMARTS, enter the following address into your browser or click on the link: https://smarts.waterboards.ca.gov/

If you have any questions or for further assistance, please contact SMARTS Help Desk at:1-866-563-3107 Monday thru Friday 8:00AM - 5:00PM, or

Back to Registration/Login Screen

Le

John Doe Metal Recycling Inc 3737 Main Street Suite 500 Riverside CA 92501

To complete your User Account Registration for the Storm Water Program, you must login at the State Water Boards website at: <a href="https://smarts.waterboards.ca.gov/">https://smarts.waterboards.ca.gov/</a> using the following User ID and Password.

User ID: stormwater2012 Password: 5tc9F4

After you complete your User Account Registration, you will be able to manage your User Account, file a new NOI or annual report, update existing NOI information, etc. You will also be able to allow other people such as employees and/or consultants to have limited access to your account or to specific NOIs as a "Data Submitter". To do this, the data submitters must first complete their own User Account Registration, and provide you their User IDs so you can link them to your organization.

If you have any questions, please contact SMARTS Help Center: 1-866-563-3107.

### Log in & Reset Password

Change Password		
Your password has expir	ed, please update you	ur password. This page allows you to res
User ID: Name :	stormwater2012 John Doe	
Old Password:	•••••	* Enter your current password.
New Password:	••••••	* New Password length should be between 7 and 12.
Confirm New Password:		*
Update  Red "*" are required fields		
		© 2011 State of California.

Note: User ID and Password are case sensitive

### Main Menu

#### Storm Water Multiple Application Reporting and Tracking System - SMARTS

#### \*\*\*MockUp Screen Only

#### Select Program to Access

**Construction General Permit** 

**Industrial General Permit** 

Municipal Phase I Permit

Municipal Phase II Permit

**Caltrans** 

Annual Reports

Manage Linked Users

Recertification

**CBPELSG Certification** 

**Update User Profile** 

Public Search Menu

#### **Recently Accessed Records**

Application ID	Document Type	Facility Name	Status
434103	NOI	Test Construction Site	Active
3410	COI	Test Construction Site	Submitted to Water board
341012	NOI	Test Industrial Facility	Not Submitted
534103	NOT	Blue Ray Tyres	Denied

# Manage Linked Users



### Enter the User ID of the person to link to the LRP account



### Link Additional Users (con't)

Select the Organization and Role to link the user to.



### Link Additional Users (con't)

Click on Organization ID to activate the Application ID field. Then select the application or WDID number to link.



### Link Additional Users (con't)

The application is successfully linked to the person when it appears in the table.



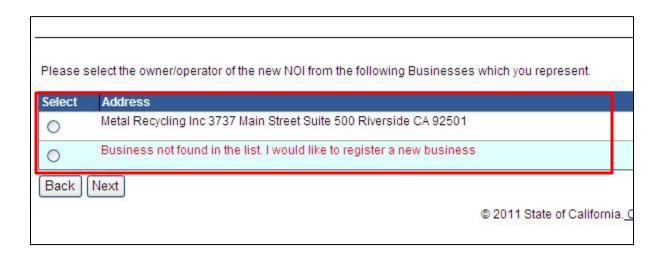
# Start a New Application

Select Program to Access	Recently Accessed	Records
Construction General Perm t	Application ID	Document Type
ndustrial General Permit	434103	NOI
<u>lunicipal Phase I Permit</u>	3410	COI
lunicipal Phase II Permit	341012	NOI
<u>altrans</u>	534103	NOT
nnual Reports		
lanage Linked Users		
<u>ecertification</u>		
BPELSG Certification		
Update User Profile		
Public Search Menu		

#### Storm Water Multiple Application Reporting and Tracking System - SMARTS

Phase II Menu	Applications You	Applications You Are Associated With:							
Annual Report	Application ID	WDID	Туре	Owner/Operator	Status	Annual Report			
Ad Hoc Report New Application	656776	7 34M2360004	Phase II	Test OwnOp 1001 I Street Sacramento, CA 95814	Active	Start			
Back to Main Menu	656006	7 12M2365404	Phase II	Test OwnOp 1001 I Street Sacramento, CA 95814	Status	Start			
© 2013 State of California. Conditions of Use Privacy Policy									

### Select the Organization

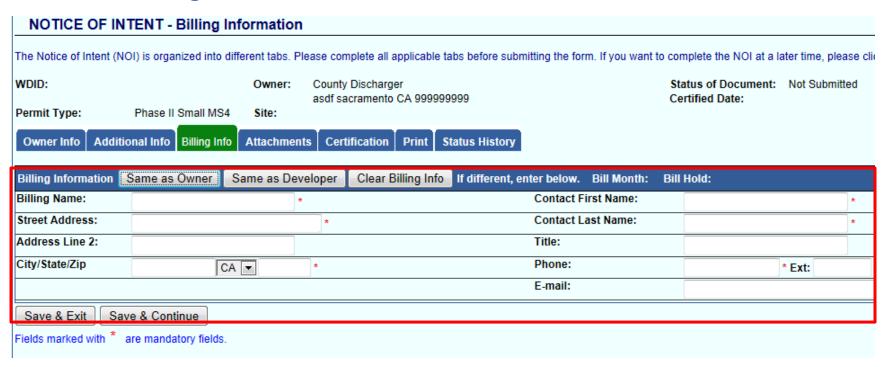


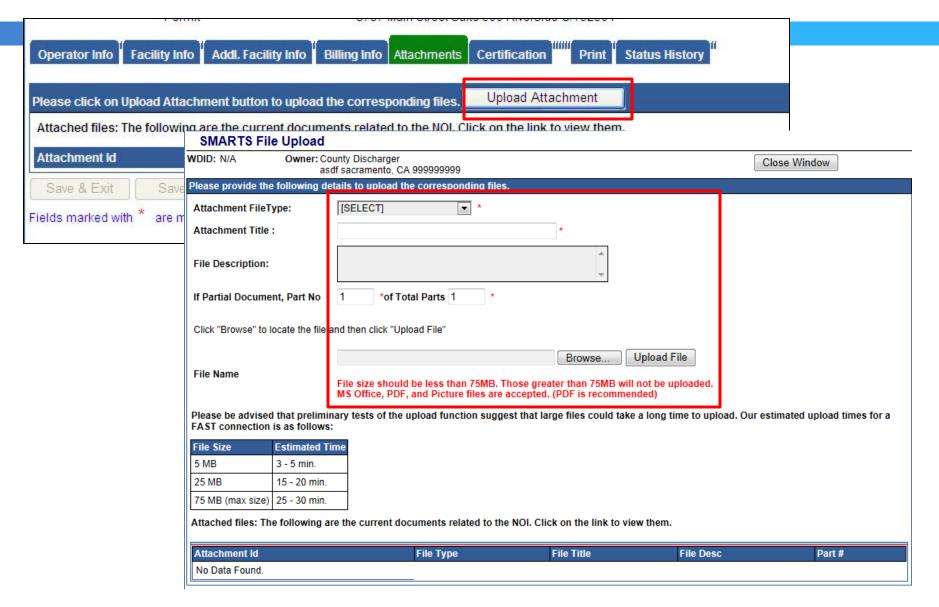
#### **Enter contact information**



Owner Info Additional Info Billing Info Attachments Certification Print Status History			
General Information			
Did you have coverage under the previous Phase II Small MS4 permit?	No	•	
What is the population served by the jurisdiction?	23455		
Is the jurisdiction a Traditional or Non-Traditional Small MS4?	Traditio	onal	•
Is the juridiction applying for permit coverage with one or more co-permittees	No	-	
Are you applying for the Small MS4 Waiver?	Yes	-	
Waiver Criteria			
Option 1			
(a) The jurisdiction served by the system is less than 1,000 people; (b) The system is not contributing substantially (as defined in Finding 25) to the pollutant loadings of a physically interconnected r (c) If the small MS4 discharges any pollutants identified as a cause of impairment of any water body to which it discharges, storm part of a U.S. EPA approved or established TMDL that addresses the pollutant(s) of concern.			
Option 2			
(a) The jurisdiction served by the system is less than 10,000 people; (b) The Regional Water Board has evaluated all waters of the U.S. that receive a discharge from the system; (c) The Regional Water Board has determined that storm water BMPs are not needed based on WLAs that are part of a U.S. EPA appollutant(s) of concern or an equivalent analysis; and (d) The Regional Water Board has determined that future discharges from the Regulated Small MS4 do not have the potential to res			
Option 3(applicable to Small MS4s outside an Urbanized Area only)			
Small Disadvantaged Community – The Regulated Small MS4 certifies that it is a community with a population of 20,000 or less wit less than 80 percent of the statewide annual MHI. (Wat. Code, § 79505.5, subd.(a)).	th an an	nual me	edian househo
Does the jurisdiction discharge to an approved TMDL? Select ▼			
Save & Exit Save & Continue			

### Enter the Billing Address information.



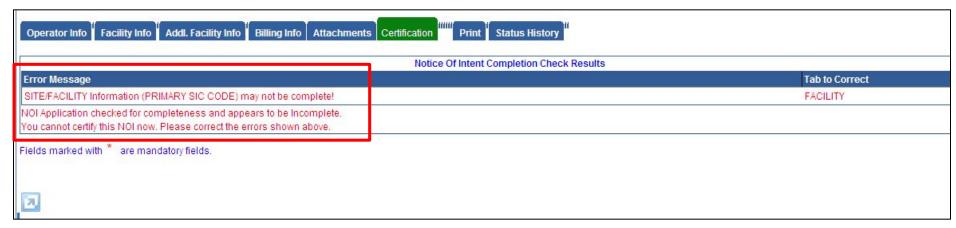


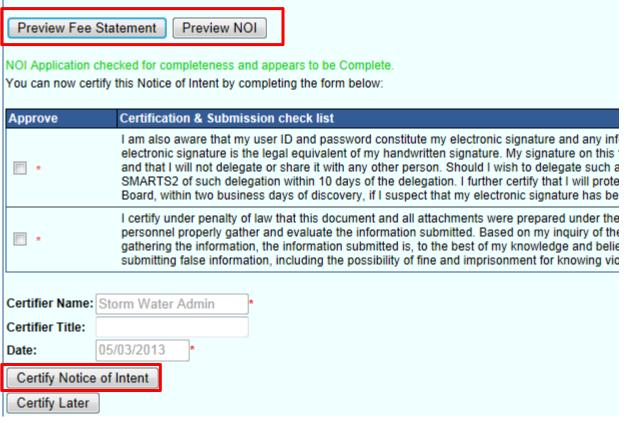
### Refresh screen to view uploaded attachments



Run the completion check and fix and errors.

Operator Info Facility Info Addl. Facility In	fo Billing Info	Attachments	Certification	Print	Status History
Refore certifying your Notice of Intent, the syst	em must verify	that all required	sections have	been comp	leted. To perform th
Fields marked with * are mandatory fields.					





Print out the Fee Statement and mail with a check to the Water Boards.

To submit the application click Certify Notice of Intent.

#### Fee Statement Application Id # 437174

#### Facility/Site

Thank you for submitting the Permit Registration Documents (PRD) for the facility/site referenced above. Before a WDID number is assigned an Application Fee of \$0.00 must be received by July 02, 2013 .If the Storm Water Section does not receive your application fee of \$0.00 by July 02, 2013 your PRDs will be returned.

Fee Statement

Please make checks payable to: SWRCB

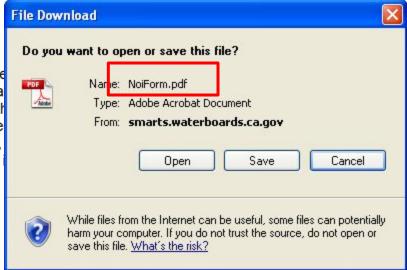
Mail this Fee Statement with an original signature and \$0.00 to:

Regular Mailing Address: SWRCB Storm Water Section PO Box 1977 Sacramento, CA 95812-1977 Overnight Mailing Address: SWRCB Storm Water Section 1001 I Street – 15<sup>th</sup> Floor

Sacramento, CA 95814

I certify under penalty of law that this document and all attachments were prepare direction or supervision in accordance with a system designed to assure that qua properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathe information, the information submitted is, to the best of my knowledge and belief, and complete. I am aware that there are significant penalties for submitting false including the possibility of fine and imprisonment for knowing violations.

Must have Adobe Acrobat Reader installed



### On screen and email conformation the NOI was submitted.

NOTICE OF	INTENT - Certification					]
The Notice of Intent	t (NOI) is organized into different sections. F	Please complete all applicable sections before submit	ting the form. If you want to complet	te the NOI at a later time, p	please click on "Save & Exit".	1
WDID:	Operator: Metal Recycling Inc Status: Submitted to Water Board			Processed Date:		
	3737 Main Street Suite 500 Riverside CA 92501 Certified Date: 03/22/2012 NOT Effective Date:					
Business Type:		etal Recycling Inc 737 Main Street Suite 500 Riverside CA 92501				
Operator Info	Facility Info Addl. Facility Info Billing Ir	nfo Attachments Certification Print Status	History NOTs COIs			
Your electronic "N	otice of Intent" has been succesfully receive	d by the State Water Resources Control Board's datab	ase. Your confirmation information	for this certification is as	follows:	
	Applicati	ion ld 425432				
		Type Region 8 - Scrap Metal Permit				
	Submission/Certify	Date 03/22/2012				
	Certifier N	John Doe				
6:	Certifier	Title				
Please print out th	nis screen as proof of certification. You will n	ot be allowed to make any further changes to the certif	fied report. If you need to correct any	y information you must co	ntact your Regional Board re	9
All records must b	pe retained for 3 years from the date of the re	eport or monitoring activity.				
	* Claimmission	1 Date: 03/22/2012				
	Submission	1 Date: 00/22/2012				
	Your NOTIC	E OF INTENT with the above det	ails was submitted to	the Water Boar	rds	
	Water Boar	ds will be reviewing the submitted	d docu <mark>ments. To vie</mark> w	the status of thi	is application,	
		n to your account at: http://smarts.			220 32	
		any questions, please contact the o contact the Regional Water Boa				: <u>a.gov</u> or 1-866-563-3107.
	Thank you, Storm Wate	er Section				

# Pending Applications (con't)

#### NOI application approved email conformation.

From: <smarts@waterboards.ca.gov> To: Stormwater CC: r8\_stormwater@waterboards.ca.gov Subject: Your submitted Notice of Intent Review - Status update Metal Recycling Inc. 3737 Main Street Suite 500 Riverside CA 92501 WDID: 8 33MR000001 ApplicationId: 425432 Permit Type: Region 8 - Scrap Metal Permit Status: Active Submission Date: 03/22/2012 Your NOTICE OF INTENT is Active. Login to your account at: https://smarts.waterboards.ca.gov/ If you have any questions, please contact the SMARTS Help Center at stormwater@waterboards.ca.gov or 1-866-563-3107. You can also contact the Regional Water Board at r8 stormwater@waterboards.ca.gov. Thank you, Storm Water Section

# Annual Report/Monitoring

- Screens being developed
- Batch upload of monitoring data

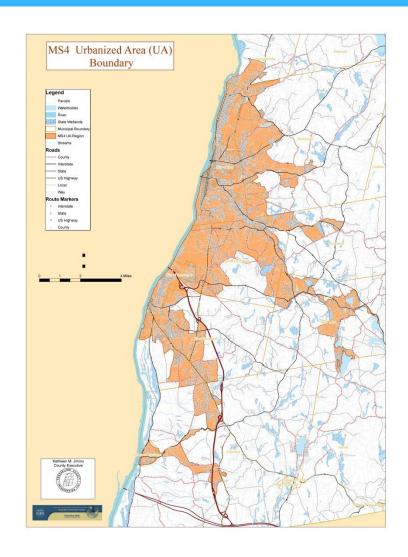


# SMARTS Help Desk

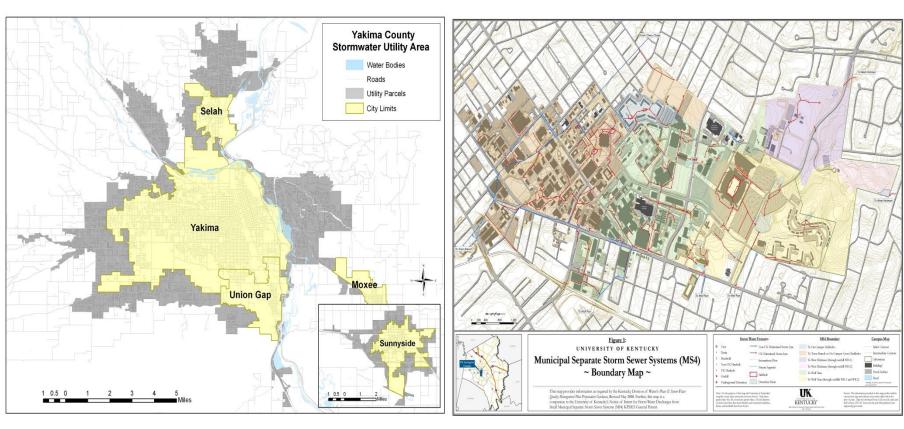
- State Water Resources Control Board
  - **■** <u>stormwater@waterboards.ca.gov</u>
  - **(866)** 563-3107

# Permit Boundary Map

- 2010 Census Data
- Cities: permit boundarycity boundary
- Counties: permit
   boundary = urbanized
   area and places
   identified in
   Attachment A located
   within their jurisdiction



# Permit Boundary Map - Examples



Traditional

Non-traditional

### **Guidance Document**

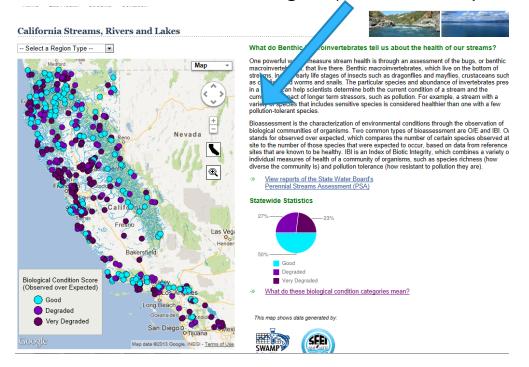
#### What is the purpose?

- To provide the Permittee with a road map to compliance
- For Renewal Permittees in particular, to assist in the prioritization of water quality issues
- To provide the Water Boards and stakeholders with a better understanding of the Permittee's specific program



#### Fees

- Based on population size
  - □ Non traditional: Resident and commuter
- Additional 21% surcharge (SWAMP)



# E.6. Program Management

- Develop an overarching program management element to implement a coordinated storm water program
  - Adequate Legal Authority
  - Certification
  - Enforcement Response Plan (ERP)



### E.7. Education and Outreach

- Develop and implement a comprehensive storm water education and outreach program
  - Public
  - Staff
    - Illicit Discharge Detection and Elimination
    - Construction
    - Pollution Prevention & Good Housekeeping



#### Public Education and Outreach

- Design program to reduce pollutant discharges in storm water runoff and non-storm water runoff discharges to the MS4
- Design program to measurably increase the knowledge and awareness of public
  - Storm drain system
  - Urban runoff
  - Non-storm water discharges

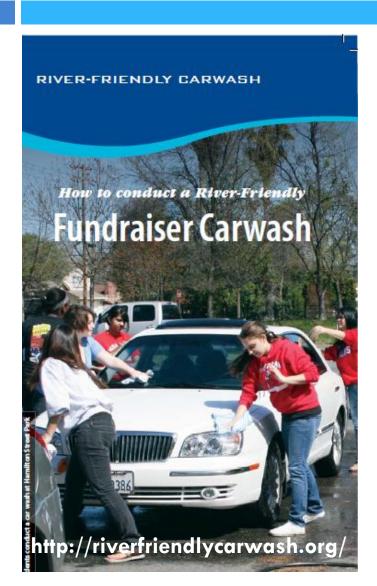


- Storm water friendly landscaping
  - Ocean Friendly Landscaping
  - Bay Friendly Landscaping
  - River Friendly Landscaping
  - Our Water Our World









- Car wash education
  - Car wash fundraisers
  - Vouchers
  - Sacramento Stormwater
     Quality Partnership's
     River Friendly Carwash
     Program

 Environmental education groups, Resource Conservation Districts, other MS4 Permittees, local and state agencies



# E.8. Public Involvement and Participation

 Involve the public in the development and implementation of activities related to the storm water program



### Overview

- Stream/beach/lake clean-ups
- Storm drain markings
- Volunteer monitoring
- Integrated regional water management and watershed planning efforts (IRWMP)



Waterbody clean ups

Create opportunities for the public to participate in implementation of BMPs (Section E.8.ii.c)



# **Examples: Storm Drain Art**



# Examples: Rain Barrel Art



# **Examples: Citizen Monitoring**

http://www.waterboards.ca.gov/water\_issues/programs/swamp/cwt\_volunteer.shtml



#### Citizen Monitoring Programs in California

- » Community Based Watershed Programs Related to Citizen Monitoring
- Find a Citizen Monitoring Organization in Your Region



# E.9. Illicit Discharge Detection and Elimination (IDDE)

 Develop an illicit discharge detection and elimination program to detect, investigate and eliminate illicit discharges into the MS4



### Overview

- Outfall map
- Inventory
- Sampling
- Corrective actions
- Spill Response Plan

# What is an illicit discharge?

 A discharge to an MS4 that is not composed entirely of storm water except permitted discharges and fire fighting related discharges 40 CFR 122.26(b)(2)



# Illicit Discharge Sources

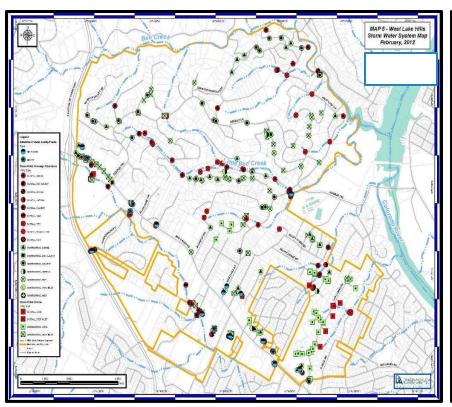
(from Center for Watershed Protection)

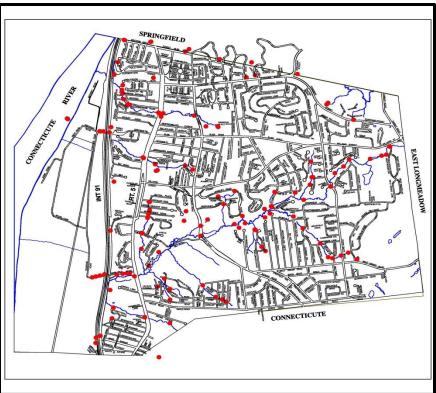
- Illegal dumping practices
- Broken sanitary sewer line
- Cross-connections
- Connection of floor drains to storm sewer
- Sanitary sewer overflows
- Inflow / infiltration
- Straight pipe sewer discharge
- Failing septic systems
- Improper RV waste disposal
- Pump station failure



# Outfall Map

 Create and maintain an up-to-date and accurate outfall map





# Inventory

- Maintain an inventory of illicit discharge sources/facilities that could discharge pollutants
- Identify priority areas
- Inventory industrial and commercial facilities and sources



# Outfall Inventory

#### OUTFALL RECONNAISSANCE INVENTORY/ SAMPLE COLLECTION FIELD SHEET

Section 1: Background Data						
Subwatershed:			Ourfall ID:			
Today's date:			Time (Military):			
Investigators:			Form completed by:			
Temperature (°F):		Rainfall (in.): Last 24 hours:	Last 48 hours:			
Latitutde:	Long	ritude:	GPS Unit:	GPS LMK #:		
Camera:			Photo #s:			
Land Use in Drainage Area (Check all th	at apply	y):				
□ Industrial			☐ Open Space			
Ultra-Urban Residential			☐ Institutional			
Suburban Residential			Other:			
Commercial			Known Industries:			
Notes (e.g, origin of outfall, if known):						

Section 2: Outfall De	scription								
LOCATION	MATERIAL		SH	APE	DIMENSIONS (IN.)	SUBMERGED			
☐ Closed Pipe	ı–	HDPE	Circular Eliptical Box Other:	Single Double Triple Other:	Diameter/Dimensions:	In Water: No No Partially Fully With Sediment: No Partially Fully			
☐ Open drainage	Concrete Earthen rip-rap Other:		☐ Trapezoid ☐ Parabolic ☐ Other:		Depth: Top Width: Bottom Width:				
☐ In-Stream	(applicable when collecting samples)								
Flow Present?	☐ Yes	□ No	If No, Ski	p to Section 5					
Flow Description (If present)	☐ Trickle [	Moderate	Substantial						

#### Section 3: Quantitative Characterization

FIELD DATA FOR FLOWING OUTFALLS						
P	ARAMETER	RESULT UNIT		EQUIPMENT		
□Flow#l	Volume		Liter	Bottle		
	Time to fill		Sec			
□Flow #2	Flow depth		In	Tape measure		
	Flow width		Ft, In	Tape measure		
	Measured length		Ft, In	Tape measure		
	Time of travel		S	Stop watch		
	Temperature		°F	Thermometer		
pH			pH Units	Test strip/Probe		
Ammonia			mg/L	Test strip		

#### Outfall Reconnaissance Inventory Field Sheet

INDICATOR	CHECK if Present		DESCRIPTI	ON	RELATIVE SEVERITY INDEX (1-3)				
Odor		☐ Sewage ☐ Sulfide	☐ Rancid/sour ☐ Petrol ☐ Other:	□ 1 – Faint		2 – Easily detected	3 – Noticeable from a distance		
Color		☐ Clear ☐ Green	☐ Brown ☐ Gray ☐ Orange ☐ Red	☐ 1 — Faint colors in sample bottle		2 – Clearly visible in sample bottle	3 – Clearly visible in outfall flow		
Turbidity			See severity			udiness	2 - Cloudy	3 – Opaque	
Floatables -Does Not Include Trash!!		□ Sewage (Toilet Paper, etc.)         □ Suds           □ Petroleum (oil sheen)         □ Other:			l - Few/slight; origin not obvious		2 – Some; indications of origin (e.g., possible studs or oil sheen)	3 - Some; origin clear (e.g., obvious oil sheen, suds, or floatin sanitary materials)	
ection 5: Physical In tre physical indicators INDICATOR		ted to flow p					COMMENTS		
Outfall Damage			□ Spalling, Cracking or Chipping    □ Peeling Paint    □ Corrosion						
Deposits/Stains		Oily   Flow Line   Paint   Other:							
Abnormal Vegetation			☐ Excessive ☐ Inhibited						
Poor pool quality			☐ Odors ☐ Colors ☐ Floatables ☐ Oil Sheen ☐ Studs ☐ Excessive Algae ☐ Other:		en .				
Pipe benthic growth			☐ Brown ☐ Orange	Green Other:					
ection 6: Overall Ou			or more indicators)	Suspect (one or more	ndicators with a	severity o	of 3) Obvious		
ection 7: Data Collec	ction								
. Sample for the lab?			Yes No						
. If yes, collected from	n:		Flow Pool						
. Intermittent flow tra			Yes No	If Yes, type:	DBM Cau	ılk dam			

Section 8: Any Non-Illicit Discharge Concerns (e.g., trash or needed infrastructure repairs)?

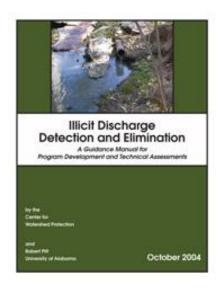
Source: Center for Watershed Protection

## Sampling

- While conducting outfall mapping, sample any outfalls that are flowing or ponding (> 72 hrs)
- Dry weather sampling of outfalls identified as priority areas (Traditionals only)



- IDDE Guidance Manual
- Joint EPA-funded project between CWP and University of Alabama
- 8 Program Components
- Desktop Methods
- Field and Lab Protocols
- Model Ordinance
- Technical Appendices
- Download at <u>www.cwp.org</u> or <u>http://cfpub.epa.gov/npdes/</u>



# E.10 Construction Site Storm Water Runoff Control Program

 Develop, implement and enforce a program to prevent construction site discharges of pollutants and impacts on beneficial uses of receiving waters



### Overview

- Construction SiteInventory
- Construction PlanReview and ApprovalProcedures
- Construction SiteInspection andEnforcement





- CASQA Construction BMP Handbook
- Erosion & Sediment Control Field Manual
- Bay Area Stormwater Management Agencies
   Association (BASMAA) Start at the Source: A
   Design Guidance Manual for Stormwater Quality
   Protection

# E.11. Pollution Prevention and Good Housekeeping

 Develop and implement a program to prevent or reduce the amount of pollutant runoff from Permittee operations



#### Overview

- Inventory, map and assess facilities
- Develop SWPPPs for hotspots
- Inspect, visually monitor (remedial action)
- Assess, prioritize and maintain storm drain system
- □ 0 & M
- Water quality and habitat enhancement of flood management facilities
- Landscape design and maintenance

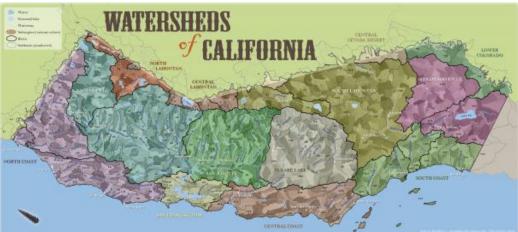
- Water Efficient Landscape Ordinance (WELO)
- CWP guide on Urban Subwatershed and Site Reconnaissance (available as free download)
- DPR 11-004 Prevention of Surface Water Contamination by Pesticides (DPR 2010)



### E.12. Post-Construction

- Reduce runoff and pollutants associated with development projects
- □ Prioritize the use of LID and site design measures
- Requirements based on Assessment and
   Maintenance of Watershed Processes, multiple
   benefit projects encouraged and incentivized







- Post-Construction Calculator (SMARTS)
- Low Impact Development Manual for Southern California
- CASQA Stormwater Best Management Practice
   Handbook, New Development and Redevelopment
- River-Friendly Landscaping
- Municipal Regulatory Update Assistance Program (MRUAP)

# E.13. Water Quality Monitoring

 Develop and implement monitoring program to focus on priority water bodies and assess BMP implementation and condition of receiving waters

Areas of Special Biological Significance

Att C Special Protections Monitoring

**Total Maximum Daily Loads** 

Att G TMDL Monitoring

> 50, 000 population

**Monitoring Options** 

# Overview Monitoring Options

- E.13.d.1. Receiving Water Monitoring; OR
- E.13.d.2. Special Studies

- All monitoring can be done through regional, collaborative efforts
- All data submitted via CEDEN templates to SMARTS









# Receiving Water Monitoring

Site	Objective	Question	Hypothesis
Urban/Rural Interface	Monitor receiving water quality at upstream location in area undergoing development.	Does receiving water quality change as LID BMPs are integrated into new development?	Receiving water quality will remain the same as new development proceeds.

# Receiving Water Monitoring

Site	Objective	Question	Hypothesis
Urban Area	Monitor receiving water quality at a downstream location in an urban area.	Does receiving water quality improve as a result of efforts to control the sources of pollution and educate the public?	Receiving water quality will improve over time as storm water and other water quality programmatic efforts are implemented.

## **Special Studies**

- Alternative to Receiving Water Monitoring
  - Assessment of effectiveness of habitat enhancement efforts, stream restoration projects
  - Assessment of effectiveness of LID pilot projects, storm water program components









## Monitoring and Program Effectiveness

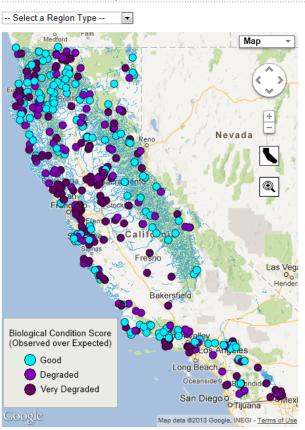
## Program Effectiveness Assessment Outcome Levels

- Storm Water Program Activities (2003 permit)
- 2) Behavior
- 3) Pollutant Load Reductions
- 4) MS4 Discharge Quality
- 5) Receiving Water Conditions



## Resources and Guidance

#### California Streams, Rivers and Lakes







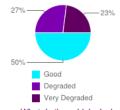
#### What do Benthic Macroinvertebrates tell us about the health of our streams?

One powerful way to measure stream health is through an assessment of the bugs, or benthic macroinvertebrates, that live there. Benthic macroinvertebrates, which live on the bottom of streams, include early life stages of insects such as dragonflies and mayflies, crustaceans such as crayfish, and worms and snails. The particular species and abundance of invertebrates presin a stream can help scientists determine both the current condition of a stream and the cumulative impact of longer term stressors, such as pollution. For example, a stream with a variety of species that includes sensitive species is considered healthier than one with a few pollution-tolerant species.

Bioassessment is the characterization of environmental conditions through the observation of biological communities of organisms. Two common types of bioassessment are O/E and IBI. O<sub>2</sub> stands for observed over expected, which compares the number of certain species observed at site to the number of those species that were expected to occur, based on data from reference sites that are known to be healthy. IBI is an Index of Biotic Integrity, which combines a variety o individual measures of health of a community of organisms, such as species richness (how diverse the community is) and pollution tolerance (how resistant to pollution they are).

Wiew reports of the State Water Board's Perennial Streams Assessment (PSA)

#### Statewide Statistics



What do these biological condition categories mean?

This map shows data generated by:





# E.14. Program Effectiveness and Assessment

- Develop and implement a Program Effectiveness
   Assessment program to evaluate your storm
   water program
  - Prioritized BMPs
    - Local pollutants of concern



## Overview

- Program Effectiveness Assessment and Improvement Plan (PEAIP)
- Storm Water Program Modifications



## Resources and Guidance



Municipal Storm Water Program Effectiveness Assessment Guidance (CASQA 2007)

6 – Receiving Water Quality

5- MS4 Discharge Quality

4 - Pollutant Load Reductions

3 - Behavior

2 - Awareness

1 - Program Activities

## E.15. TMDLs

- Comply with all applicable TMDLs approved pursuant to 40 CFR section 130.7 that assign a waste load allocation to the Permittee and that have been identified in Attachment G
- One year consultation period
  - Water Boards and Permittees

# **Annual Reporting**

- Certification of completion
- Summary of activities
- □ Brief discussion of program effectiveness
- SMARTS

# **Questions?**



## Contact

### stormwater@waterboards.ca.gov

(Include "Phase II Small MS4" in subject line, please)

Ali Dunn

(916)341 - 6899

ali.dunn@waterboards.ca.gov

**Eric Berntsen** 

(916)341 - 5911

eric.berntsen@waterboards.ca.gov