

## C.15.b. Water Utility Workshop

# Stormwater Requirements for Water Utility O&M Discharges



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# Overview

- What is the Municipal Regional Permit (MRP)?
- Requirements for Co-Permittees that are Water Utilities
- SMCWPPP Guidance Materials
- The Future....

# Who are we?



Town of Atherton

City of Belmont

◆ City of Brisbane

◆ City of Burlingame

Town of Colma

◆ City of Daly City

◆ City of East Palo Alto

◆ City of Foster City

City of Half Moon Bay

◆ Town of Hillsborough

◆ City of Menlo Park

◆ City of Millbrae

City of Pacifica

Town of Portola Valley

◆ City of Redwood City

◆ City of San Bruno

City of San Carlos

City of San Mateo

◆ County of San Mateo

San Mateo County

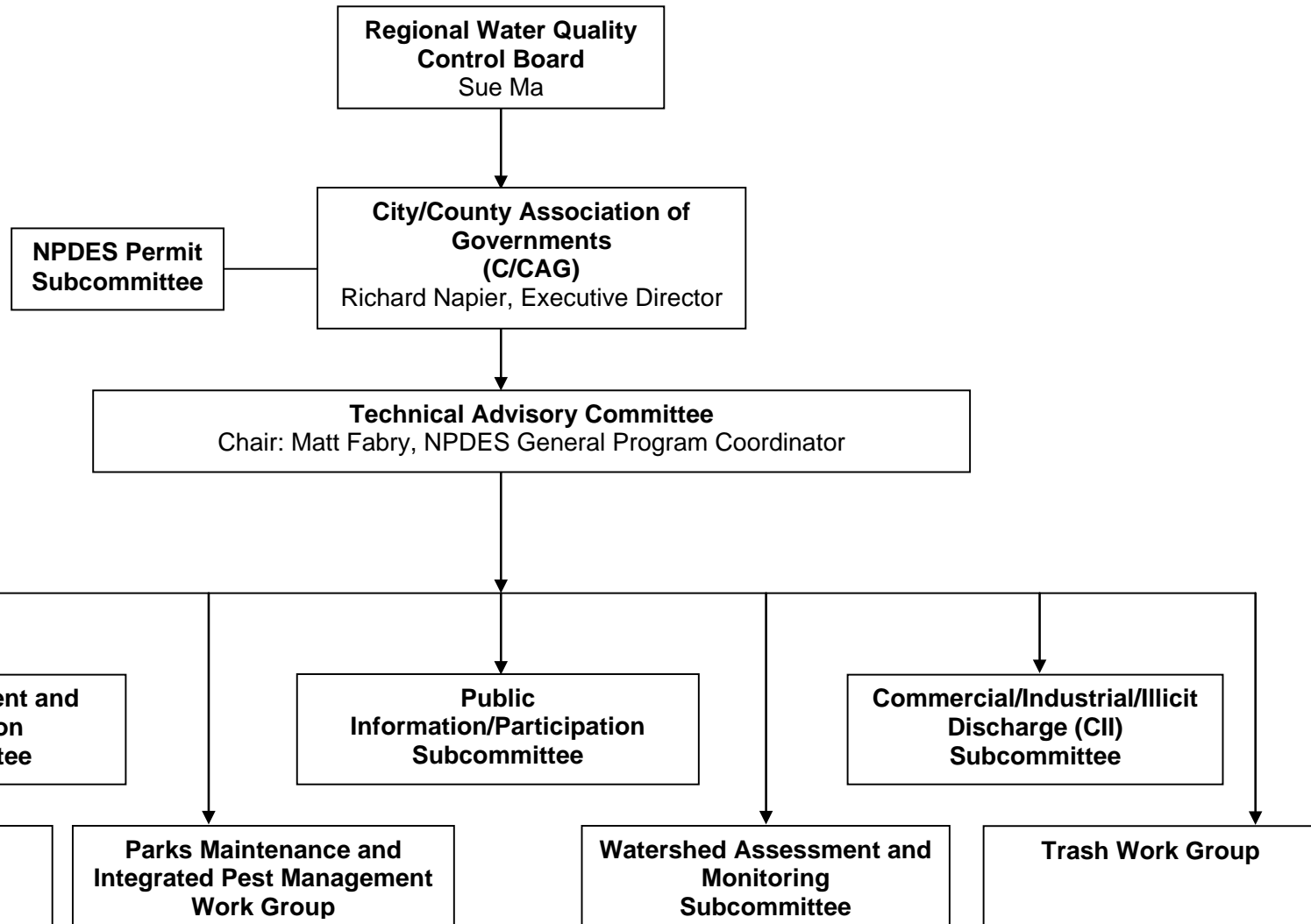
Flood Control District

City of South San Francisco

Town of Woodside

# San Mateo Countywide Water Pollution Control Program

## ORGANIZATIONAL STRUCTURE



# Water Utility Work Group

- First meeting April 2012
- Exchanged available guidance materials (field forms, reporting forms)
- Developed 4 Fact Sheets
- Requested Training Workshop
- Workshop is last Work Group activity

# Bay Area Municipal Regional Permit

- Consolidates 6 Phase 1 municipal permits into 1 regional permit (76 permittees):
  - San Mateo, Santa Clara, Alameda, and Contra Costa Counties, Fairfield-Suisun, and Vallejo
- Ensures consistent level of implementation and promotes collaboration
- Adopted: October 14, 2009
- Effective date: December 1, 2009



# Permit Provisions

- **C1** – Compliance with Discharge Prohibitions
- **C2** – Municipal Maintenance
- **C3** – New Development and Redevelopment
- **C4** – Industrial and Commercial Discharge
- **C5** – Illicit Discharge Detection and Elimination
- **C6** – Construction Inspection
- **C7** – Public Information and Outreach
- **C8** – Water Quality Monitoring
- **C9** – Pesticide Toxicity Control
- **C10** – Trash Reduction
- **C11** – Mercury Load Reduction
- **C12** – PCBs
- **C13** – Copper
- **C14** – PBDE and Legacy Pesticides
- **C15** – Exempted & Conditionally Exempted Discharges
- **C16** – Reporting

# C.15 Exempted and Conditionally Exempted Discharges

(non-stormwater discharges to storm drains)

## ■ Exempt Discharges

- **Eight types of unpolluted non-stormwater discharges may be discharged to the storm drain**

## ■ Conditionally Exempt Discharges

- **Other non-stormwater discharges are conditionally exempted when Permittees:**
  - Identify appropriate control measures
  - Monitor the non-stormwater discharge when necessary
  - Ensure implementation of effective control measures
- **Examples include:**
  - Pumped groundwater, foundation drains, irrigation water, pool discharges, air conditioning condensate, residential car washing

# C.15 Exempted and Conditionally Exempted Discharges

- **Conditionally Exempt Discharges (cont.)**
  - **Potable Water System Discharges (C.15.b.iii)**
    - Only applies to Co-permittees that are Water Purveyors
      - ⇒ Brisbane, Burlingame, Daly City, East Palo Alto, Foster City, Hillsborough, Menlo Park, Millbrae, Redwood City, San Bruno, San Mateo County
    - Only applies if discharge reaches storm drain system/ receiving water
    - Planned and Unplanned Discharges – requires appropriate control measures, notification, monitoring and reporting of discharges
    - Emergency Discharges – requires appropriate control measures, second in priority to protection of life and property

# Potable Water System Discharges

## *Planned*

- Planned = Routine O&M activities
  - Blowoff/ hydrant flushing
  - Storage tank discharges (maintenance or cleaning)
  - New service line installation
  - Valve replacement



# Potable Water System Discharges

## *Planned*

- Appropriate BMPs for
  - dechlorination
  - erosion and sediment controls
- Notification to Water Board
  - Week in advance
  - Flow rate  $\geq 250,000$  gpd
  - Total volume  $\geq 500,000$  gal
  - Report project information



# Potable Water System Discharges

## *Planned*

- Monitoring Requirements
  - pH,
  - chlorine residual and
  - Turbidity
- Implementation
  - Collect sample after BMPs
  - Maintain equipment (calibration)
  - Training on monitoring equipment



# Potable Water System Discharges

## *Planned*

- Benchmarks - evaluate BMP effectiveness
  - Chlorine residual  $\leq 0.05$  mg/L
  - $6.5 \leq \text{pH} \leq 8.5$
  - Turbidity  $\leq 50$  NTU  
or limit increase in  
Receiving Water



5 NTU

50 NTU

500 NTU

# Benchmarks - BMP effectiveness (cont.)

## ■ pH

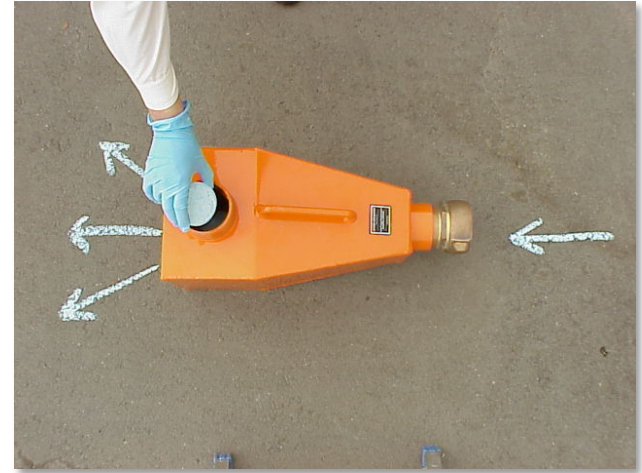
- Can change due to some dechlorination chemicals
- Know your water source (i.e. Hetch Hetchy typically pH is  $>8.5$ )

## ■ Chlorine residual

- Benchmark value is low!
- Take sample far enough away to allow dechlor tablet reaction time ( $\sim 40$  ft)
- May need to adjust flow

## ■ Turbidity

- Make sure flow path is clear of debris
- 50 NTU typically met – but can go to RW to measure if needed



# Potable Water System Discharges

## *Planned*

- Reporting Requirements
  - Project information (name, type, RW, date)
  - Discharge info (duration, volume, flow)
  - Monitoring data (chlorine residual, pH, turbidity pt of discharge & RW where feasible)
  - BMP description (implemented & corrective actions)

# Potable Water System Discharges

## Planned



### PLANNED DISCHARGES

Routine Operation & Maintenance Activities  
Potable Water System

SITE/LOCATION: \_\_\_\_\_

DISCHARGE TYPE: ☐ Main Disinfection ☐ Hydrant Testing/Flows ☐ Storage Tank Maintenance  
☐ Reservoir Dewatering ☐ Water Main Dewatering ☐ Distribution Main Flushing  
☐ Cleaning & Lining Pipe Sections ☐ Other \_\_\_\_\_

RECEIVING WATER: ☐ Pacific Ocean ☐ San Francisco Bay

DATE OF DISCHARGE: \_\_\_\_/\_\_\_\_/\_\_\_\_

DURATION OF DISCHARGE (Military Time): START: \_\_\_\_\_ END: \_\_\_\_\_

ESTIMATED VOLUME<sup>1</sup>: \_\_\_\_\_ GALLONS

ESTIMATED FLOW RATE: \_\_\_\_\_ GALLONS/DAY

\*REQUIRED BEST MANAGEMENT PRACTICES (BMPs): Shall implement appropriate BMPs for dechlorination and erosion and sediment controls for all planned discharges.

#### \*MONITORING DATA – REQUIRED\*

#### BENCHMARKS

1.\*CHLORINE RESIDUAL: \_\_\_\_\_ mg/L

0.05 mg/L or less

2.\*pH: \_\_\_\_\_ Standard Units

Between 6.5 - 8.5

3.\*DISCHARGE TURBIDITY: \_\_\_\_\_ NTU

50 NTU or less post BMPs

4. RECEIVING WATER TURBIDITY: \_\_\_\_\_ NTU Only when feasible at point of discharge

5.\*IMPLEMENTED BMPs & CORRECTIVE ACTIONS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
STAFF (Please Print)

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

<sup>1</sup> DWWP shall notify Water Board staff at [info2@waterboards.ca.gov](mailto:info2@waterboards.ca.gov) or (510) 622-2300 at least 1 week in advance with a total volume of 500,000 gallons or more or a flow rate of 250,000 gallons per day or more. Please reference the MRP for permit requirements.

# Potable Water System Discharges

## *Planned*

[illegible]

# Potable Water System Discharges

## *Unplanned*

- Unplanned = Non-routine activities
  - water line breaks,
  - leaks,
  - overflows,
  - emergency flushing,
  - fire hydrant shearing



# Potable Water System Discharges

## *Unplanned*

- First Priority – contain discharge & attain safety of the site
- Second Priority - Appropriate BMPs
  - dechlorination
  - erosion and sediment controls
  - administrative BMPs



# Potable Water System Discharges

## *Unplanned*

- Notification Requirements
  - State OES within 2 hrs after being aware of aquatic impacts or compromised public health and safety
  - Water Board within 24 hrs of  $\geq 50,000$  gallons and chlorine residual  $\geq 0.05$  mg/L (report due 5 days later)

# Potable Water System Discharges

## *Unplanned*

- Monitor 10% of discharges
  - pH
  - Chlorine residual
  - **Visually** assess turbidity
- Outside benchmarks triggers BMP improvement



# Potable Water System Discharges

## *Unplanned*

- Reporting requirements
  - Same as planned
    - Project info (All)
    - Discharge info (All)
    - BMPs (All)
    - Monitoring (10%)
  - Plus time of discovery, notification, inspector arrival and responding crew

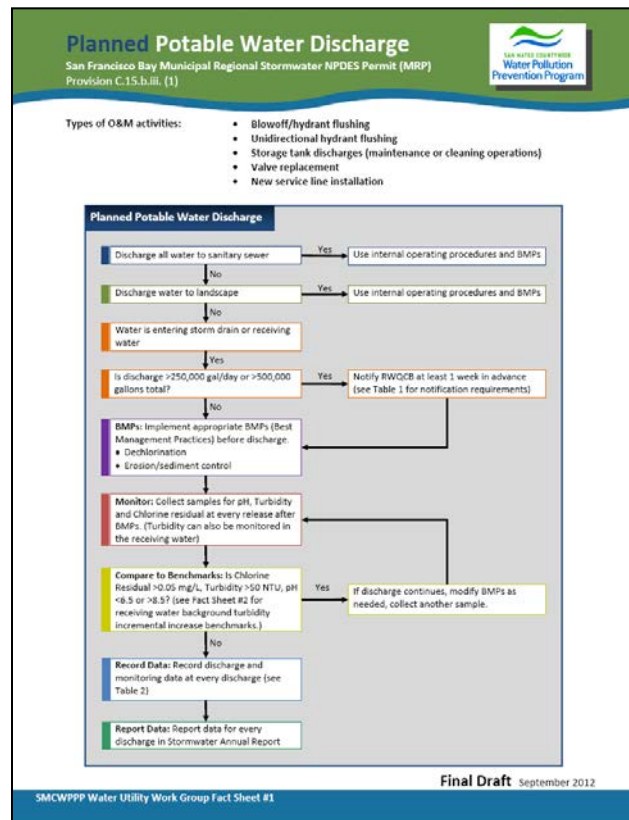
# Potable Water System Discharges

## - ***EMERGENCY*** -

- Emergency = natural or man-made disasters
  - Priority is life, property then environment
  - BMPs should not interfere with immediate emergency response operations
  - Reporting Requirements
    - Determined by Water Board

# SMCWPPP Guidance Documents

- Fact Sheets available (pdf & Word) on Flows to Bay website – Municipal Maintenance members only section



# Future.....

- Water Utilities not covered by MRP
  - Regional Water Board staff developing a new Regional General Permit within the year
- Expect more focus on C.15.b.iii data submitted in Annual Reports

# Questions?

Program website:

[www.flowstobay.org](http://www.flowstobay.org)