SANITATION DISTRICTS OF LOS ANGELES COUNTY

# State Water Board's Draft Toxicity Policy

Phil Markle

Senior Environmental Scientist, Monitoring Section

BACWA Toxicity Workshop

September 18, 2017

# History and Background

- Nearly 15 years in the making!
- In 2003, SWRCB instructed staff to develop a statewide toxicity policy.

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**
**LOS ANGELES REGION**
**320 West 4th Street, Suite 200, Los Angeles**

**FACT SHEET**

**WASTE DISCHARGE REQUIREMENTS**
**FOR**
**COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY**
**(Los Coyotes Water Reclamation Plant)**

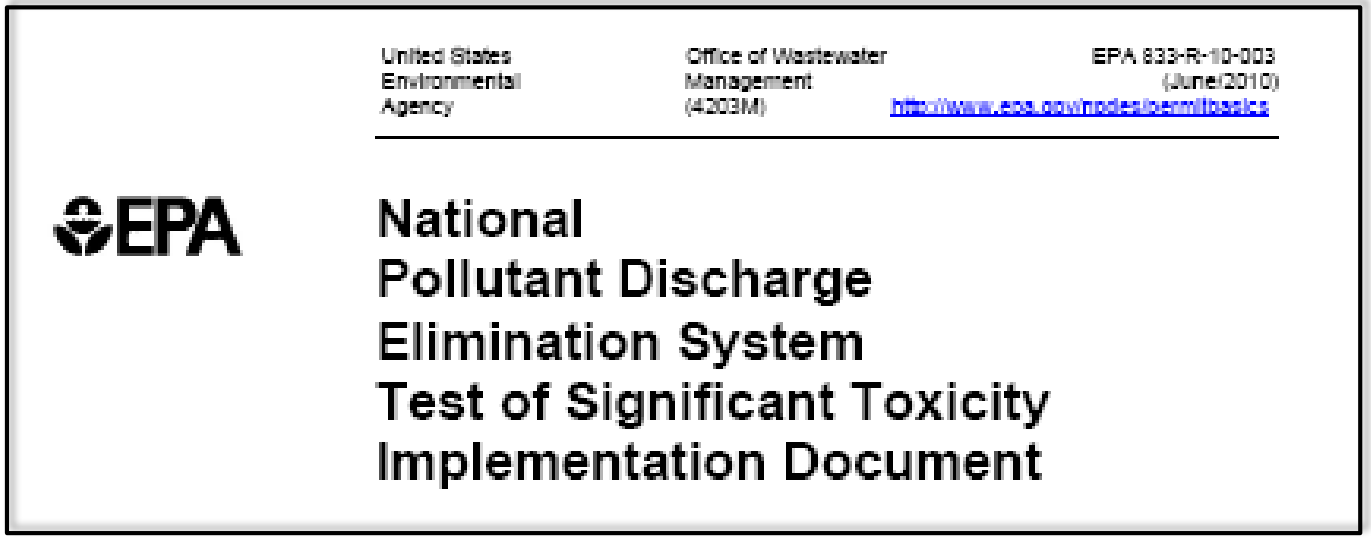
NPDES No. CA0054011
Public Notice No.: R4-2002-0021

22. ***State Implementation Plan (SIP).*** Anticipating USEPA's promulgation of the CTR, the State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (also known as the State Implementation Plan or SIP) on March 2, 2000. The SIP was amended by Resolution No. 2000-30, on April 26, 2000, and the Office of Administrative Law approved the SIP on April 28, 2000. The SIP applies to discharges of toxic pollutants to inland surface waters, enclosed bays and estuaries of California which are subject to regulation under the State's Porter-Cologne Water Quality Control Act (Division 7 of the Water Code) and the Clean Water Act. The policy provides for the following:

a. implementation procedures for the priority pollutant criteria promulgated by USEPA through the CTR and for priority pollutant objectives established by Regional Water Quality Control Boards (RWQCBs) in their water quality control plans (Basin Plans);
b. monitoring requirements for priority pollutants with insufficient data to determine reasonable potential;
c. monitoring requirements for 2,3,7,8–TCDD equivalents; and,
d. chronic toxicity control provisions.

# History and Background

- **June 2010 – EPA Test of Significant Toxicity (TST) Document – EPA 833-R-10-003**
  - An alternative statistical method that MAY be used instead of current NOEC and point estimate methods
  - Provides guidance for states to incorporate TST into their WET Policy



United States Environmental Agency | Office of Wastewater Management (4203M) | EPA 833-R-10-003 (June2010)
http://www.epa.gov/npdes/permitbasics

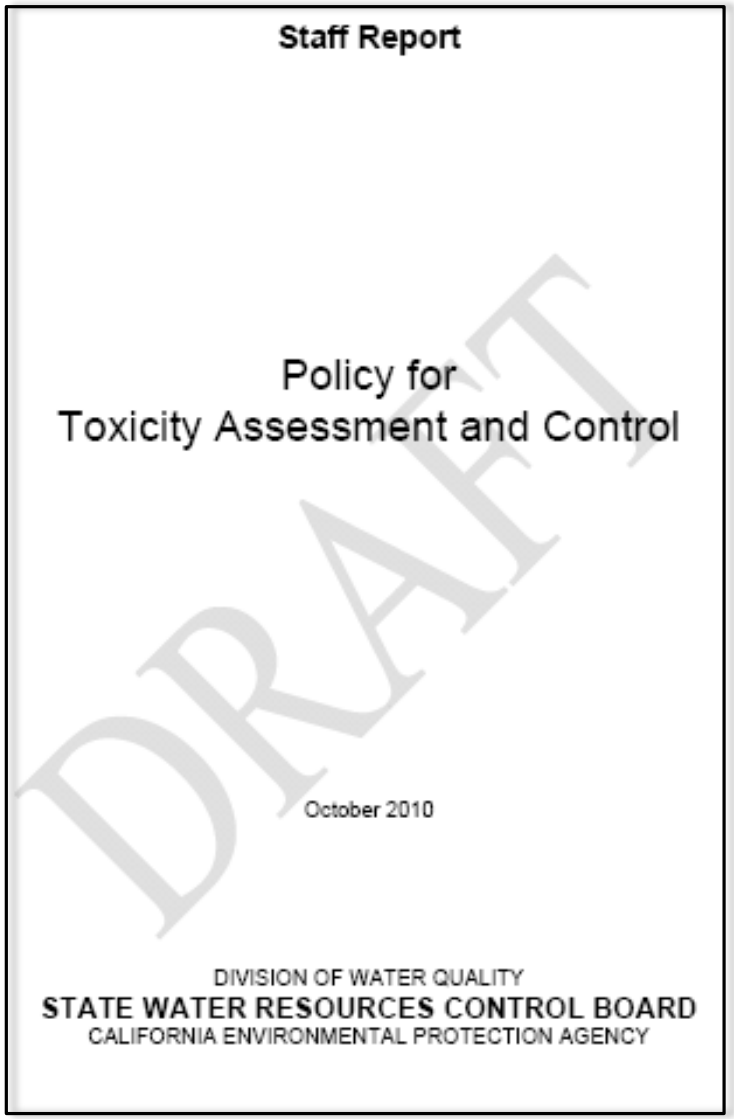
EPA

National
Pollutant Discharge
Elimination System
Test of Significant Toxicity
Implementation Document

# History and Background

- **July and October 2010 –**

**SWRCB released a preliminary WET Policy for "unofficial" public comment.**



# History and Background

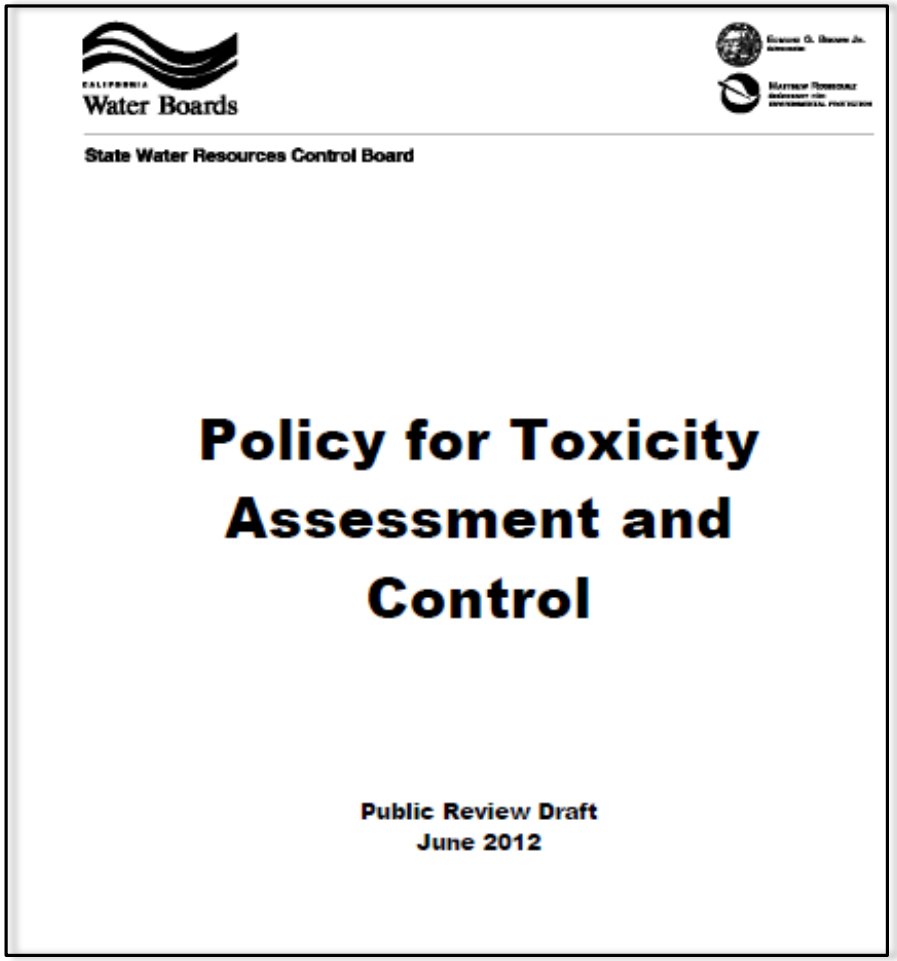
- **June 2012**

**Draft Policy released for "formal" public comment**

- **August 2012**

**SWRCB Workshop**

**Revised draft Plan expected in Spring 2013**




**Eventual Adoption anticipated in late 2013**

# Current Status

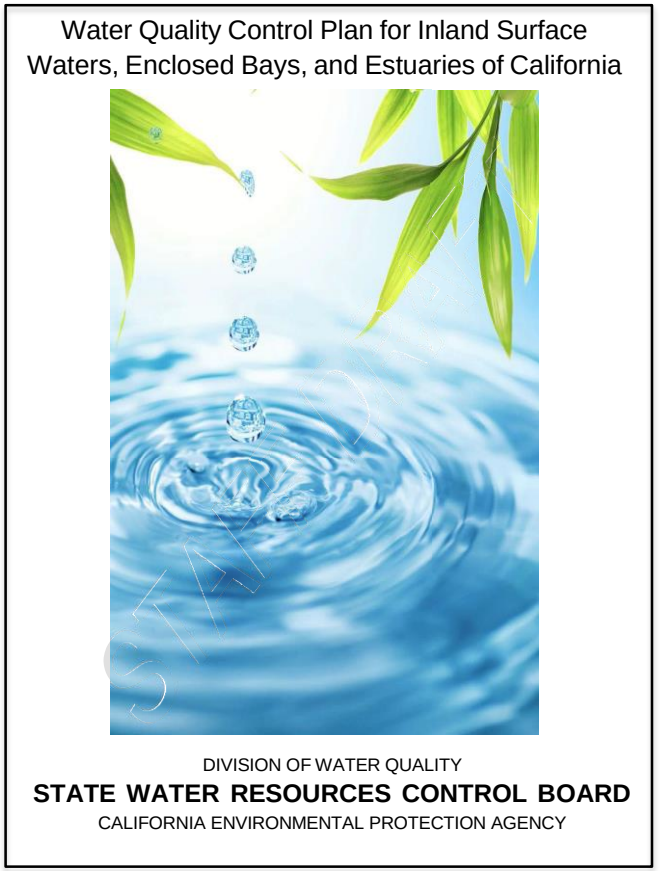
- Latest Draft Toxicity Plan Released – April 2017
  - Now proposed as a component of the State's Inland Surface Waters, Enclosed Bays, and Estuaries Plan

It is a "Plan"

Not a "Policy"

No Regional Board Discretion

Will not require amending the Basin Plan



# Elements of the Draft Plan For POTWs

- Minimum Monitoring Frequency
  - Routine Monitoring
  - Most Sensitive Species Screens
- Reasonable Potential
  - Who will get numeric limits?
  - What will the Limits look like?

# Elements of the Draft Plan For POTWs

- Accelerated Testing and TRE initiation Triggers
- Acute vs. Chronic Testing

# Minimum Monitoring Frequencies

- For POTWs ≥ 5 MGD – Chronic Testing Monthly
- For POTWs ≤ 5 MGD – Chronic Testing Quarterly

- Most Sensitive Species Screens:
  - Three toxicity tests conducted concurrently using three different species.
  - Repeated four times.
    - Quarterly for one year for continuous dischargers
    - Evenly spaced through out a year for non-continuous dischargers
  - At least once a permit cycle.

# Reasonable Potential
## Who Will Get Numeric Limits?

- Spoiler Alert!!! EVERYONE WILL,

  EVENTUALLY
- For POTWs ≥ 5 MGD – You Have Assumed RP
- For POTWs ≤ 5 MGD – If any single test exhibits a 10% effect or greater, you will have RP
  - For a non-toxic control to be valid and acceptable, you are allowed to have 20% mortality

# What Will The Limits Look Like?

- Maximum Daily Effluent Limit (MDEL)
  - A single test exhibiting a survival effect of 50% or more
  - Think of it as a single test limit.

- Monthly Median Effluent Limit (MMEL)
  - A median result of “Pass” based on the TST statistic
    - No more than three tests conducted in a calendar month
  - Think of it as a multiple test limit

# What Will The Limits Look Like? Examples

| Pass the TST, Effect <50% |
| --- |
| MDEL = Pass |
| MMEL = Pass |
| No other testing needed |

| Fail the TST, Effect <50% |
| --- |
| MDEL = Pass |
| Need 2 more tests to assess MMEL |
| If both tests pass the TST<br>MMEL = Pass |
| If one test fails the TST<br>MMEL = Fail |

| Fail the TST, Effect ≥50% |
| --- |
| MDEL = Fail |
| Need 2 more tests to assess MMEL |
| If both tests pass the TST<br>MMEL = Pass |
| If one test fails the TST<br>MMEL = Fail |

# How Can You Conduct Three Chronic Tests in a Month?

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---|---|---|---|---|---|---|
| | | | | 1 | 2 | 3 |
| 4 | 5<br>Sample Collection | 6 | 7<br>Sample Collection | 8 | 9<br>Sample Collection | 10 |
| 11 | 12 | 13 | 14<br>QA/QC Review | 15<br>QA/QC Review | 16<br>Failure Notification | 17 |
| 18 | 19 | 20<br>Sample Collection | 21 | 22 | 23<br>Sample Collection | 24 |
| 25 | 26<br>Sample Collection | 27 | 28 | 29<br>Sample Collection | 30<br>Initiate Test 3 | |

# Accelerated Testing and Accelerated Testing Triggers

- If you are conducting monthly toxicity testing –
  - No Accelerated Monitoring Requirements
- If you are conducting quarterly testing –
  - You will need to conduct routine testing the month following a single MDEL or MMEL exceedance

# TRE Triggers

- Two Exceedances in a Single Month
  - MDEL and MMEL exceedances
    - We are trying to clarify
  - Two MDEL Exceedances

- Two Exceedances in Consecutive Months
  - MDEL and MMEL
  - MMEL and MMEL
  - MDEL and MDEL

# Reduced Compliance Monitoring Frequency

- Temporary reduction in routine monitoring allowed during a TRE
  - Twice per year (every 6 months)
- Reduction in Routine Monitoring to Annually if:
  - MDEL and MMEL has not been exceeded for five years.
  - Toxicity provisions in the NPDES Permit have been followed.
  - No treatment process change or upgrade has occurred.
  - An additional significant industrial user has not been added.

# Acute Vs. Chronic Testing

- In most instances:
  - No more acute testing
    - Chronic testing is believed to be more sensitive and will capture any “acute” excursions
- Exceptions
  - Need to protect species of special concerns
    - Salmon/trout
  - Flow through systems
  - Increased acute testing frequencies

# Questions??

- Phil Markle
  - 562 908-4288 Ext 2808
  - pmarkle@lacsd.org