## Update of 1998 303(d) List of Impaired Waters

Public Workshop December 4, 2001

#### **Update Process**

- ✓ Data solicitation
  - ✓ Fall 2000
     ✓ Spring 2001
- Presentation on methodology at Board meeting (May 31, 2001)
- ✓ Subsequent presentations to stakeholder groups
- ✓ Public workshop to present proposed new listings and de-listings
- ✓ Presentation to Regional Board on Dec. 13

# Status

✓December 2001

- ✓ Finalize 303(d) recommendations
- ✓ Finalize 305(b) report
- ✓ Submit recommendations to State Board along with comments received

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#### **Assessment Guidelines**

- ✓ U.S. EPA guidelines (EPA-841-B-97-002B, 1997)
- ✓ Regional guidelines where EPA guidelines don't exist
  - ✓ Basin Plan objectives (toxicity) and
  - Assessment approaches of state monitoring programs (sediment, bioaccumulation, benthic community)
  - ✓ Weight-of-evidence

# Relationship between 305(b) and 303(d)

- ✓ 305(b) Water Quality Assessment
  - Regional assessment of water quality,
  - ✓ to determine degree of beneficial use support of water bodies

- ✓ Fully supporting beneficial uses
- ✓ Fully supporting but threatened
- ✓ Partially supporting
   ✓ Not supporting
- ✓ 303(d) List of Impaired Waters
  - Waters that are fully supporting but threatened, partially supporting or not supporting beneficial uses

## **Assessment Guidelines**

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- ✓ Conventional pollutants & stressors (e.g., dissolved oxygen, pH, TDS, chloride)
  - ✓ "Fully supporting" if ≤10% of samples exceed water quality standard✓ "Partially supporting" if 11-25% exceed
  - ✓"Not supporting" if >25% exceed
- ✓ Relevant beneficial uses:
  - ✓Aquatic Life, Agriculture, Waterbody specific objectives

## **Assessment Guidelines** (continued)

- ✓ Toxic Substances (e.g., priority pollutants, ammonia)
  - ✓ Fully supporting if no more than 1 violation of chronic criteria, and no more than 1 violation of acute criteria within a 3-year period (based on grab or composite samples)
  - ✓ Partially supporting if criteria exceeded more than once but in ≤10% of samples
  - ✓ Not supporting if criteria exceeded in >10%
- ✓ Relevant beneficial use: Aquatic Life

#### **Assessment Guidelines**

(continued)

- ✓ Drinking Water (MUN)
  - ✓ Fully supporting: Contaminants do not exceed water quality standards
  - ✓ Fully supporting but threatened: Contaminants exceed water quality standards >10%
  - ✓ Partially supporting: Median concentration of contaminants exceeds standard

### **Assessment Guidelines**

(continued)

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#### ✓MUN (continued)

- ✓ Potential MUN as designated under SODW assessed using Title 22 Primary MCLs only
- ✓ Other Existing or Potential MUN assessed using Title 22 and CTR human health criteria

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#### **Assessment Guidelines**

#### (continued)

- ✓ Bacteria objectives for recreation
  - ✓ Coliform data

    - Partially supporting: Threshold limit exceeded
       >10% samples exceed 400 fecal coliforms/100 ml
       >20% samples exceed 1,000 total coliforms/100 ml (marine water only)
    - ✓ Not supporting: Geometric mean exceeded

  - ✓ Beach postings
     ✓ Not supporting: beach was posted >10% of days annually ✓ Beach closures
    - Partially supporting: On average, 1 closure/year of < 1 week's duration

    - Not supporting: More than 1 closure/year, or on average, 1 closure/year > 1 week's duration

#### **Assessment Guidelines**

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✓ Fish and shellfish consumption ✓ Fully supporting: No restrictions or bans

✓ Partially supporting: Restricted consumption ✓Not supporting: "No consumption" ban

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#### **Assessment Guidelines**

#### (continued)

- ✓ Other guidelines will be used where EPA guidance does not exist
- ✓ The following guidelines were used: ✓ Sediment chemistry
  - ✓ Effects Range-Median/Probable Effects Level guidelines
  - ✓ Fish tissue contamination
  - ✓ Maximum Tissue Residual Levels (MTRLs)
  - ✓ Benthic community ✓ Relative Benthic Index

## Assessment Guidelines

(continued)

- Water column toxicity
   Weight of evidence; focus on recurring consistent/persistent toxicity
  - ✓ Look for both acute and chronic toxicity

## **Assessment Guidelines**

(continued)

✓ Minimum of 10 data points for a waterbody segment over the assessment period (1997 to present) for water chemistry and bacteriological data

- ✓ No minimum data requirements for water column toxicity, habitat assessment, sediment chemistry/toxicity, bioaccumulation or benthic community – weight-of-evidence approach
  - $\sqrt{\rm Also},$  evaluated data based on where 1996 assessment stopped

	Istings		tings	Total changes	Net change
Water column	Yana/Sed	Water calume	Timm/Sed	to 303(d) List	to 303(d) List
	0	•	•	. 14	-2
9	4	•	4	17	•
•	0	1	2		3
13	0	0	1	14	12
1	0	0	5	7	-6
5 ·	2	0	•	15	-1
24	19	5	33	81	5
z	14	0	12	28	4
7	8	0	4	1\$	11
73	47		79	204	36
	6 9 13 1 8 24 2 7	0         0           9         4           0         0           13         0           1         0           5         2           24         19           2         14           7         8	8         0         0           9         4         0           1         0         0           1         0         0           5         2         0           2         0         3           2         1         0         0           3         2         0         3           7         8         0         0	Image: state	6         0         0         14           9         4         0         4         17           6         0         1         2         6           13         0         0         1         14           1         0         0         1         14           1         0         0         1         14           1         0         9         6         7           8         2         0         9         15           2         19         6         3         81           2         14         0         12         28           7         8         0         4         18

# **Assessment Results**

## New Listings: Water Column

> Bacteria (20)

> Metals (16)

- > Nitrogen & its effects (14)
- > Chloride, TDS, Sulfate, Boron (14)
- > pH (3)
- Sedimentation (Calleguas Creek Watershed, 8 reaches)

> Other (4)

> DDT, trash, toxicity, unnatural foam/scum

## New Listings: Sediment, Tissue, Benthic Community

✓ Tissue (22)

- ✓(chlordane, lindane, dieldrin, PCBs, toxaphene)
- ✓ Sediment chemistry (19)✓(chlordane, dieldrin, PCBs, some metals)
- ✓ Benthic community degradation (3)
- $\checkmark$  Sediment toxicity (3)

#### Delistings

> Water column

- > D.0 (3)> Toxicity (2)
- > Toxicity (2)
  > Trash (1)
- Sediment (5)Benthic community

(1)

≻ Tissue (72)

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#### **TMDL Analytical Units**

✓ 8 New TMDL Analytical Units based on Proposed New Listings

✓ Calleguas Creek Bacteria

- ✓ Ballona Creek pH
- ✓ Avalon Beach Beach Postings
- ✓ San Gabriel River Estuary Trash
- ✓ McCoy Canyon Creek (LA River) Nitrate
- ✓ Santa Clara River Salts
- ✓ Los Cerritos Channel Sediment Toxicity
- ✓ Ventura River Bacteria

T	IDL Analytical Units to be Removed based
0	Proposed Delistings
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lytical Unit	Weigtbodies	Pullularita
14	LA River Reach 6	Chiorpyrites
18	LA River Reach S	Chant
27	Part Hustone Harbor	PAN
20	Port Humana Harber	Zre
30	Part phanetrie Harber	181
34	East Fork San Gabriel River	Trash
81	Wagnie Lake and Makkou Lake	Chloridane, PCBa
70	Datore Creek Marina dat Rey	1191
78	(A Herber	767
87	Ventu/le River Estuary	DOT
80	Varia/s River Reaches 18.2	Copper, Zirc, Silver
82	Verburn River Reach 2	Balantorn

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