




Stormwater Diversion to Sanitary System: Why and Why Not?

NACWA Summer Technical Conference
Anchorage, AK
July 16, 2008

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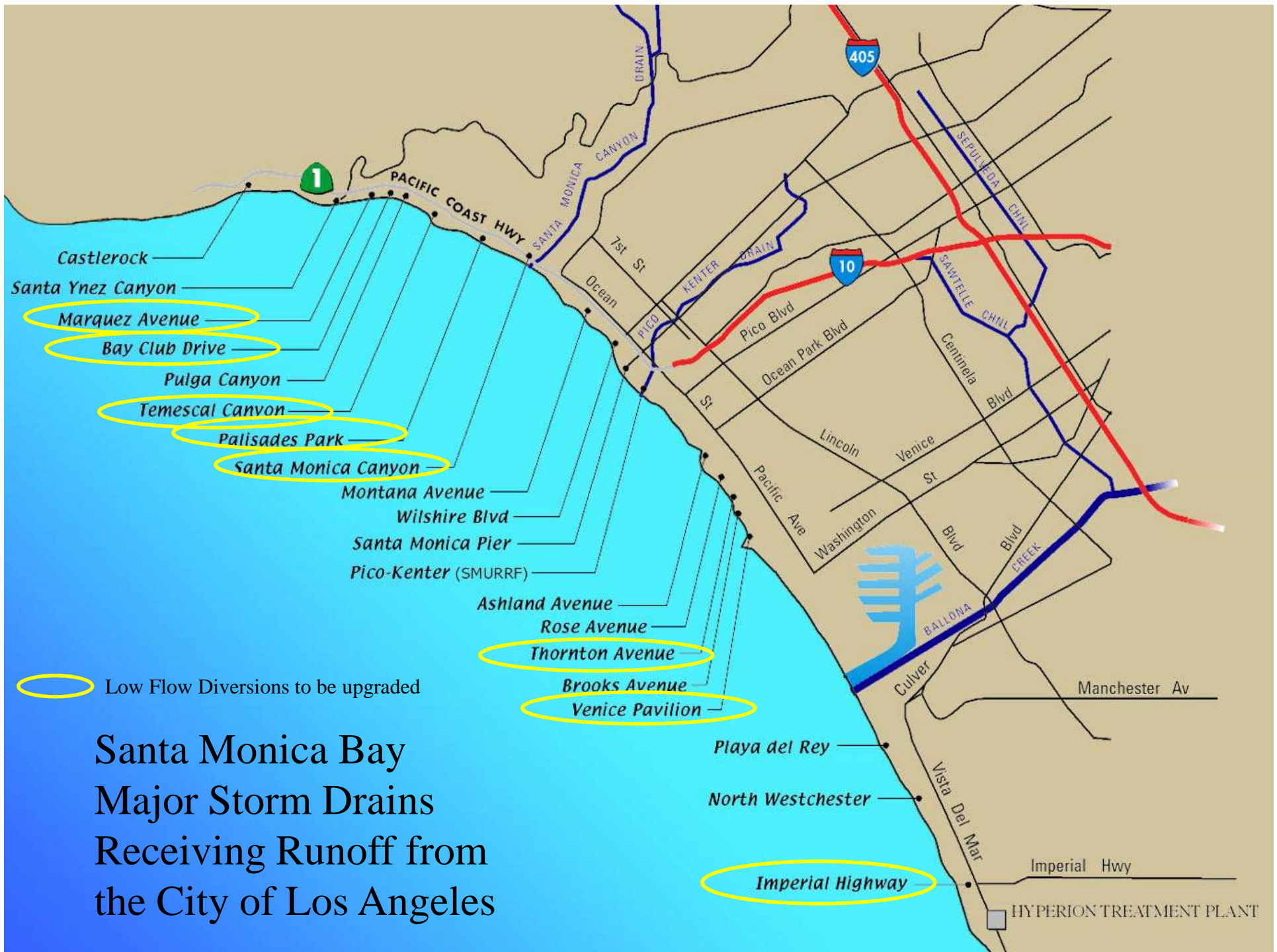
BACWA - Leading the way to protect our Bay

The background of the slide is a photograph of a blue sky with wispy white clouds above a calm blue body of water. The text is centered in the upper half of the image.

Urban Runoff Carrying
Pollutants of Concern
Will Be Diverted to the
Sanitary Sewer System

Santa Monica Bay 1995 Epi Study





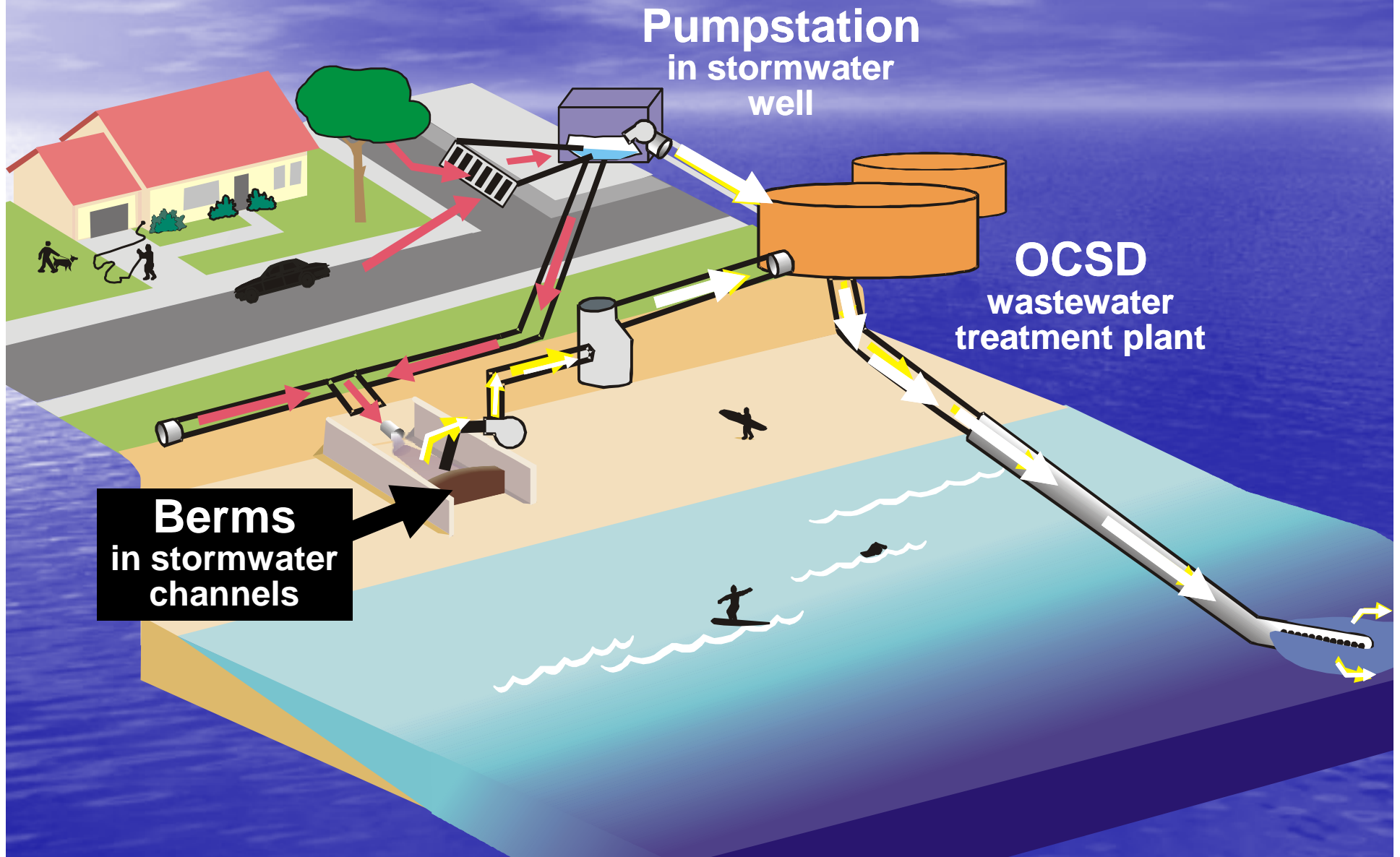
Huntington State Beach, California

July 1 - September 3, 1999 up to 4 1/2 miles (23,000 feet) of Huntington Beach was closed due to elevated bacteria level

Santa Ana River



Low Flow Diversion Systems



Stormwater TMDLs



Storm Drain System



Catch Basin



Underground
Tunnel
System



Channel inlet



Beach Outfall



Open Flood Channel



Low Flow Diversion (LFD)

Diverting Dry Weather Urban Runoff from the Storm Drain System to the Sanitary Sewer System for Treatment at Hyperion Treatment Plant or Santa Monica Urban Runoff Recycling Facility (SMURRF)







Divert “Dirty Water” to
Sanitary Sewers

Why?

- Key Regulator for SF Bay Says:
 - It's the right thing to do
 - It's doable, effective, and affordable (?)
 - It's a key component of integrated watershed and water resource management

The background of the slide is a photograph of a vast, calm ocean under a bright, slightly hazy sky. The water is a deep blue, and the sky is a lighter blue with wispy white clouds. The horizon line is visible in the distance. The text "What's 'Dirty Water'?" is centered in the middle of the image in a yellow, sans-serif font.

What's "Dirty Water"?

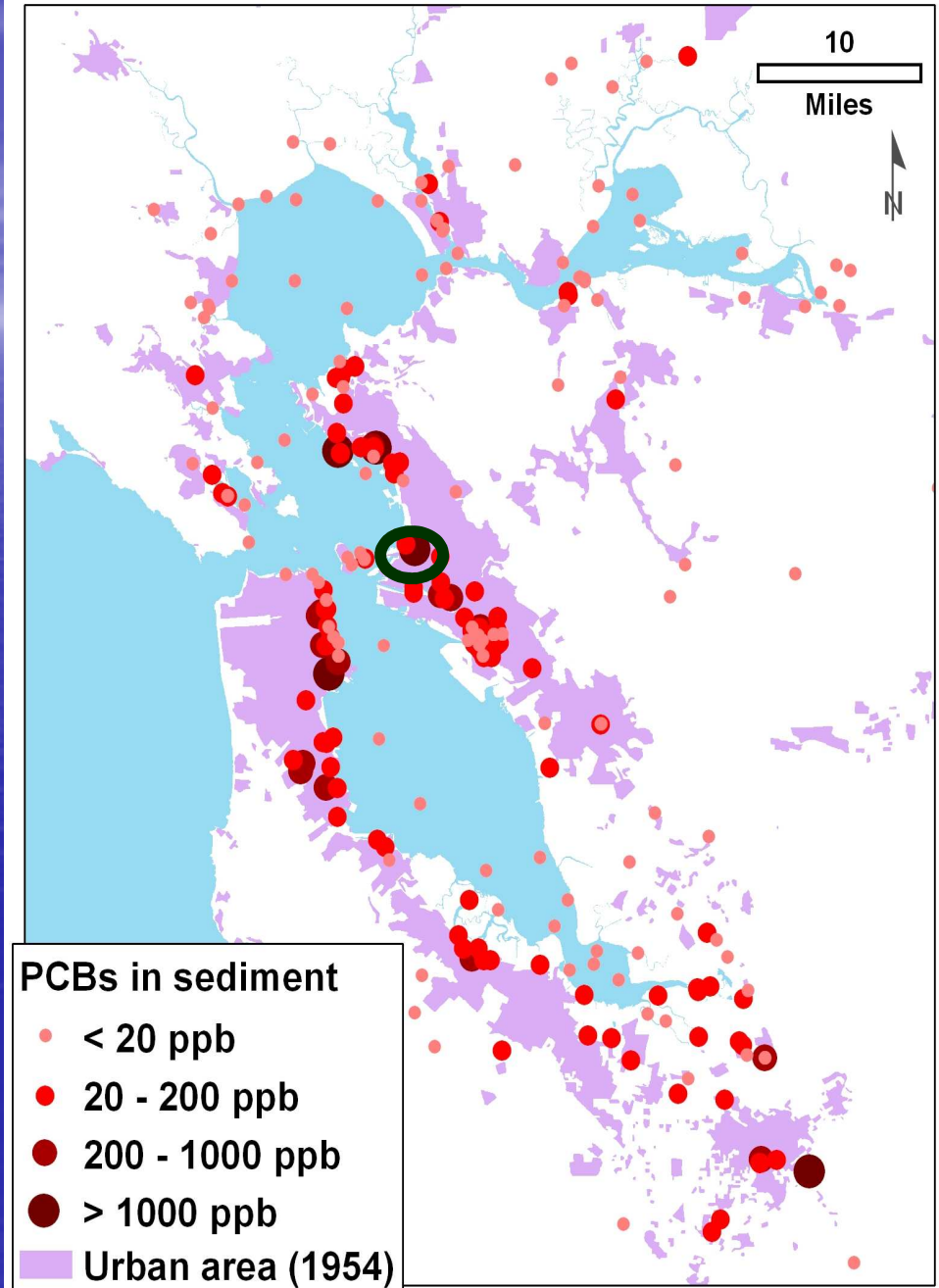
Urban Runoff Pollutants

<u>Pollutant</u>	<u>Wet</u>	<u>Dry</u>
Pesticides	✓	✓
PCBs	✓	
Mercury	✓	
Copper	✓	✓?
Pathogens	✓	✓
Nutrients	✓	✓
Sediments		
DO, Cl, cleaning stuff		✓

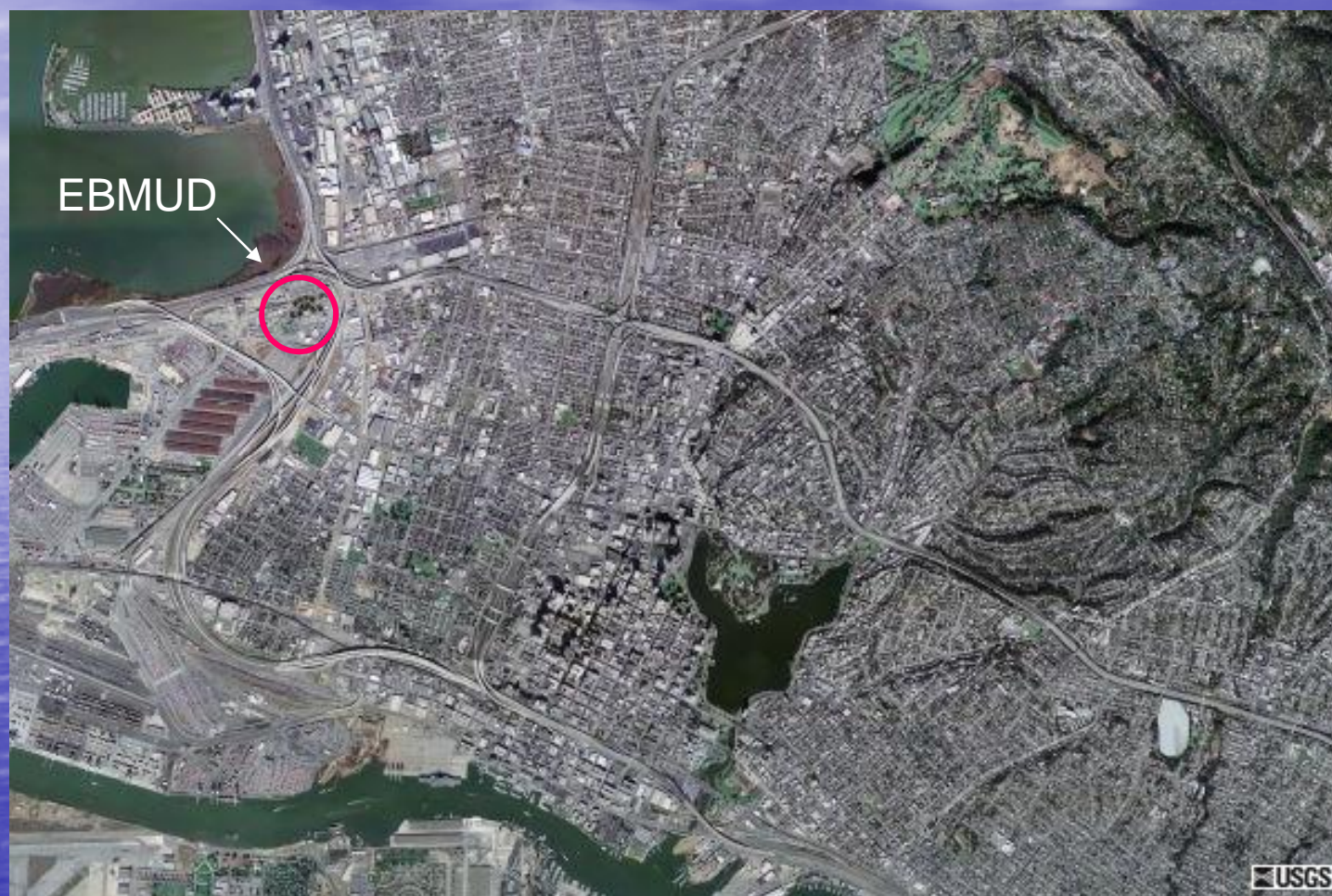
SF Bay PCBs TMDL Allocations (kg/y)

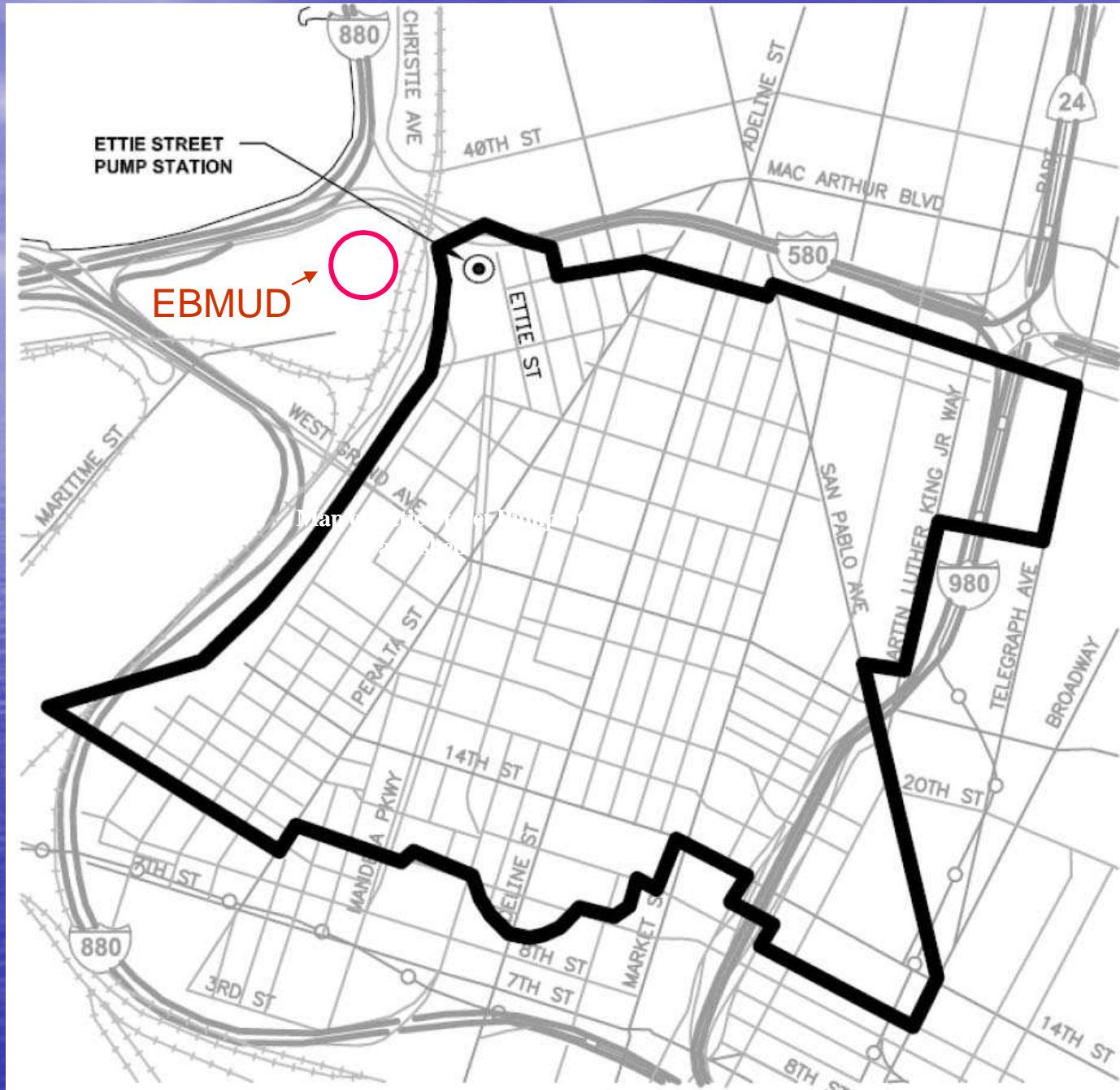
Source	Current Loads	Allocations
Atmospheric Deposition	net loss	0
Central Valley	11	5
Wastewater (WW)	2.3	2
Urban Runoff	20	2
Urban Runoff Treatment by WW		1
		TMDL = 10 kg/yr

PCBs in Urban Runoff Drainages

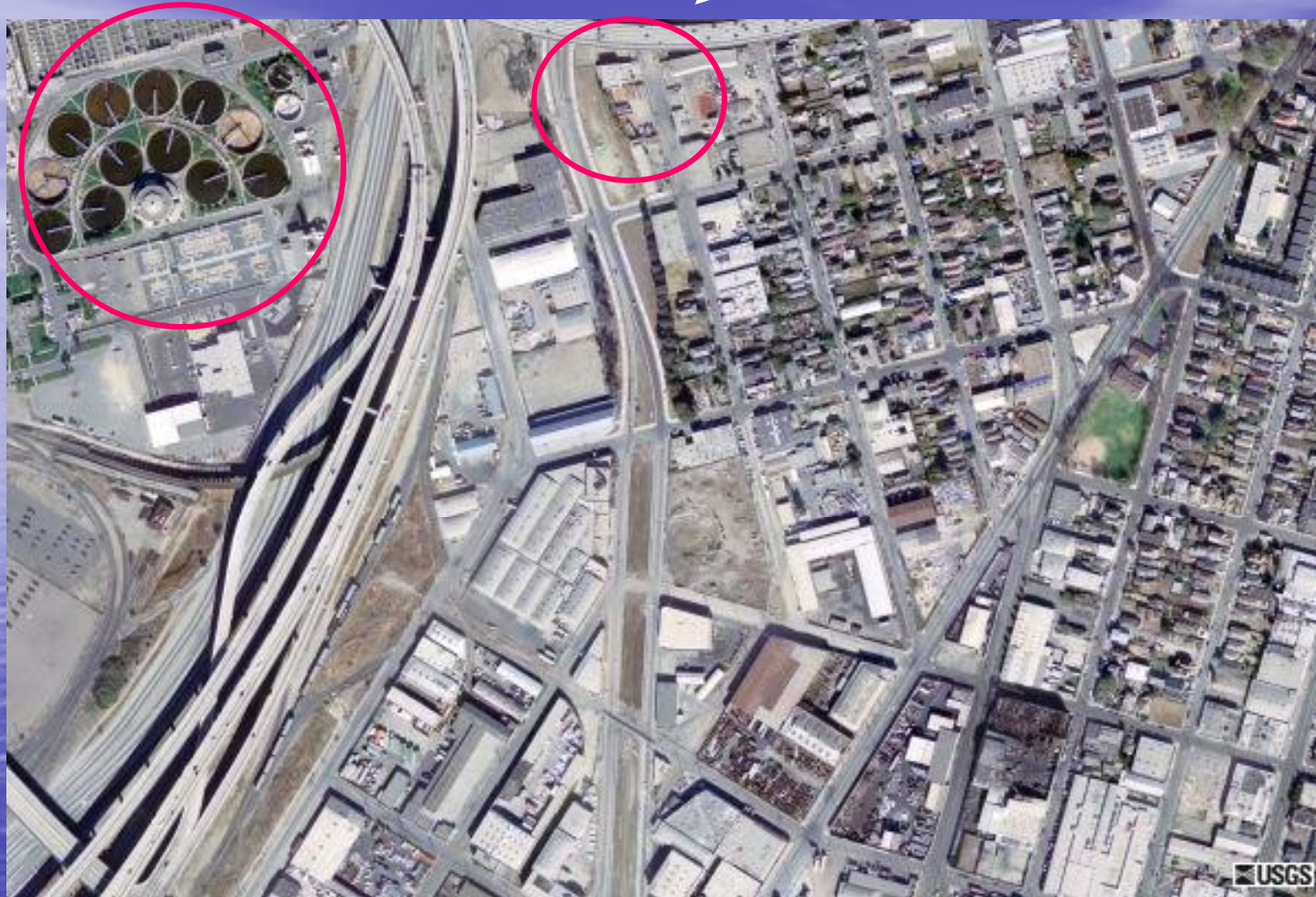






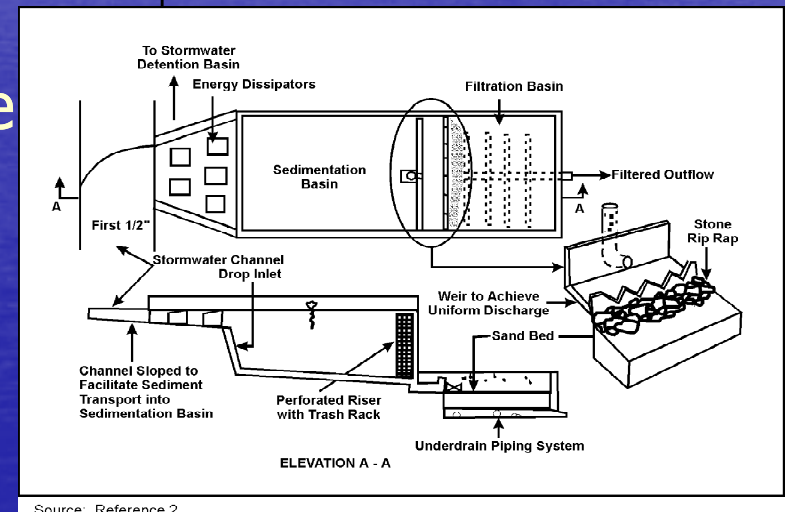


Ettie Street Pump Station



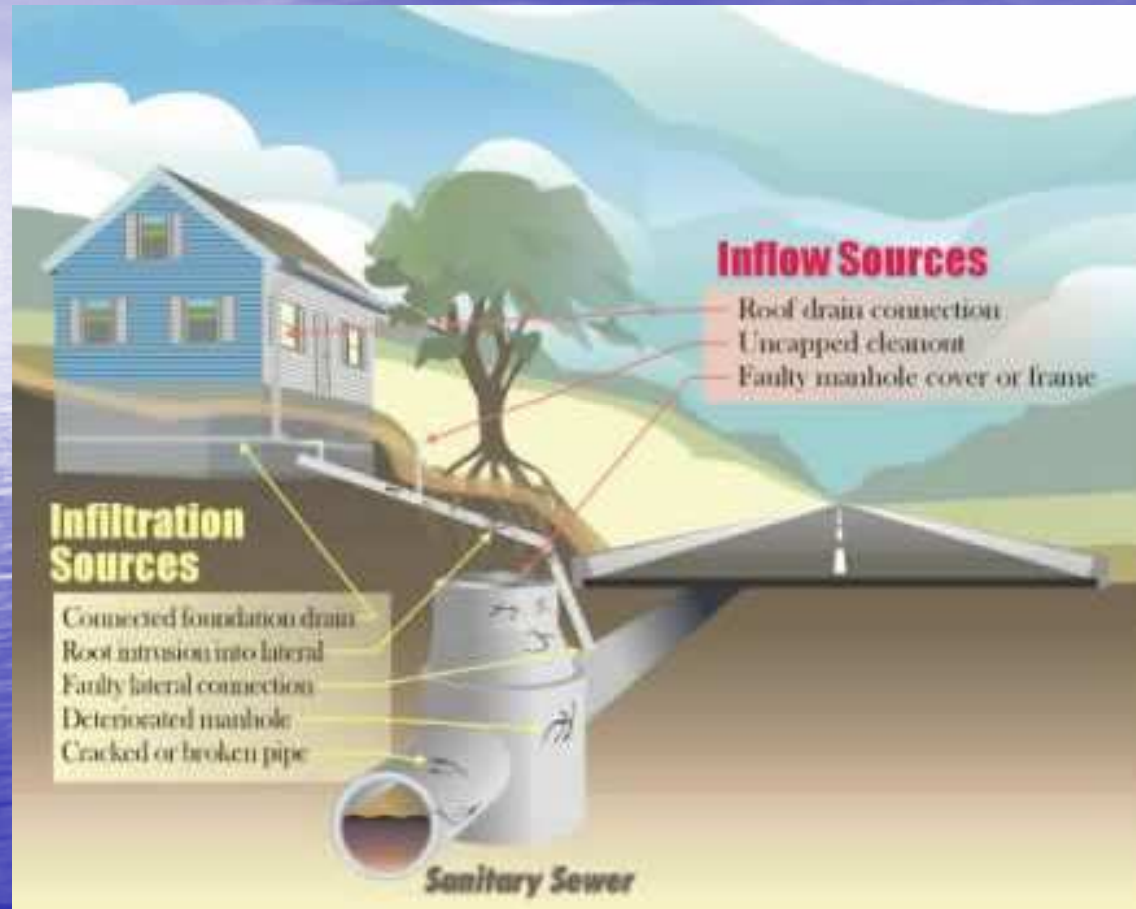
Runoff Treatment Costs

- Sand filter example
 - \$240,000 per unit and \$10,000 annual maintenance
 - 1/2 inch of runoff from 50 acre drainage area
 - 70% sediment removal
- Ettie Street watershed
 - 1,000 acres
 - \$4.8 million for 20 sand filters
 - \$200,000 annual maintenance



Source: Reference 2

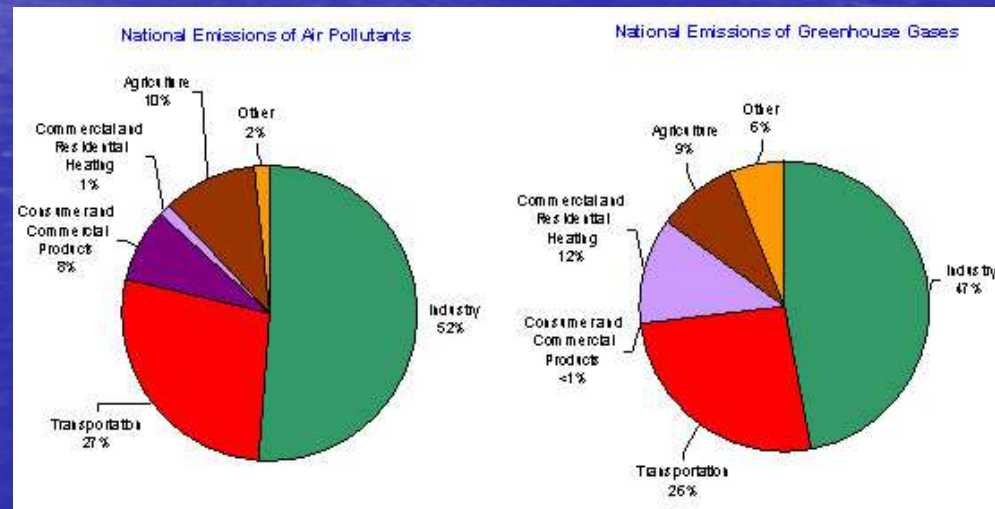
Why Not?



Why Not?



More Energy and
Chemicals to Treat
More Flow



Concentration Limits in NPDES Permits

STATE OF TEXAS

DEPARTMENT OF TRANSPORTATION

DRIVER LICENSE

TEXAS DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

DNR

DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

TEXAS DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

DRIVER LICENSE

Intergovernmental Issues



SF Bay TMDLS

Pollutant	SW Current	SW TMDL	MWW Current	MWW TMDL
Hg	160 kg/yr	82 kg/yr	17 kg/yr	11 kg/yr
PCB	20 kg/yr	2 kg/yr	2.3 kg/yr	2.0 kg/yr



Questions?



SF Bay Municipal Regional Permit: Mercury and PCBs Controls

- **Collection and Recycling of Devices**
 - Promotion and facilitation of existing programs
- **In concert with Pilot Projects to:**
 - Investigate and Abate_On-land Mercury Sources
 - Evaluate and Enhance Sediment Removal via Municipal Operations
 - Evaluate On-site Treatment via Retrofit
 - Assess feasibility of diverting flows to POTWs from pump stations and implement diversions at 5 pilot pump stations

That's Not All...

- **Copper Control:**
 - **Manage discharges from pools, spas and fountains that contain copper-based chemicals**
 - Require pools and spas to discharge to POTW
- Draft Permit does not yet distinguish dry, first flush and wet weather