





California Health & Safety Code Requirement for Reporting of Sewage Spills



Sanitation agencies, cities, businesses or individuals must immediately report all sewage spills to the local Environmental Health Division.

State Water Resources Control Board Sewage Spill Reporting Executive Order

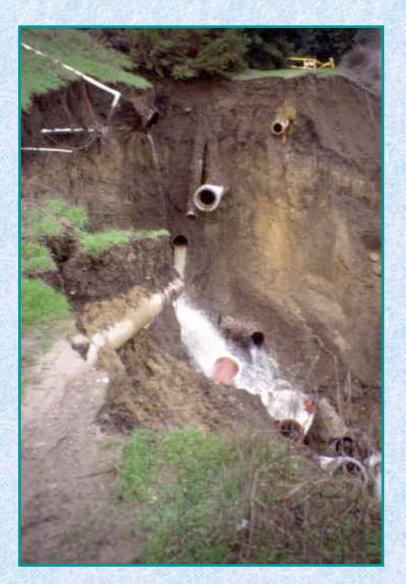
On February 20, 2008, an Executive Order was signed and immediately put into effect by the State Water Resources Control Board that requires: "For any discharge of sewage that results in a discharge into a drainage channel or a surface water, the discharger shall, as soon as possible, but not later then two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services, the local health officer or directors of environmental health with jurisdiction over affected water bodies, and the appropriate Regional Water Quality Control Board."

Containment and Cleanup





Using sand berm at end of the channel to stop sewage flow from entering the ocean and recovery of discharged sewage by pumper truck.





Bypass system around sewage line break.



Using dirt berm and rubber sheeting to stop overflow from reaching storm drain catch basin.

 \triangle

Using sand berms to direct overflow from grease interceptor back into the sewer system.



to know immediately.....



- •Mandatory closure of affected ocean or bay area signs posted by lifeguards, sanitation districts or us.
- •Reopening Criteria elimination of source and two consecutive water samples in compliance with state bacterial ocean water quality standards.



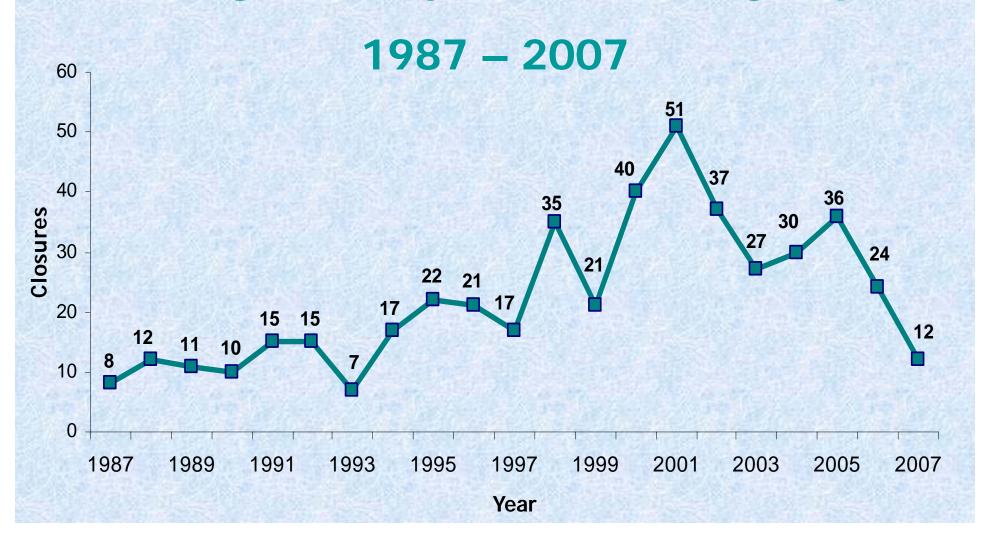
- •Closure of the food service establishment (e.g., market, restaurant, coffee shop, etc.) if necessary to stop outside sewage overflow or if sewage is flowing inside of the establishment.
- Assure proper clean-up inside and outside of facility.

Total Number of Sewage Spills Reported in Orange County from 1987–2007

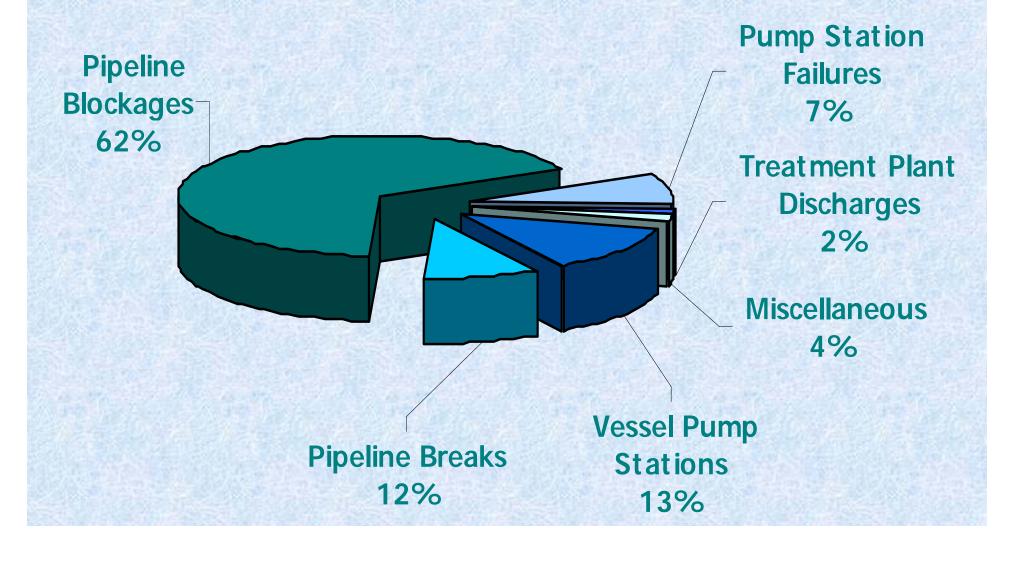
(Excluding Tertiary Recycled Water Spills)



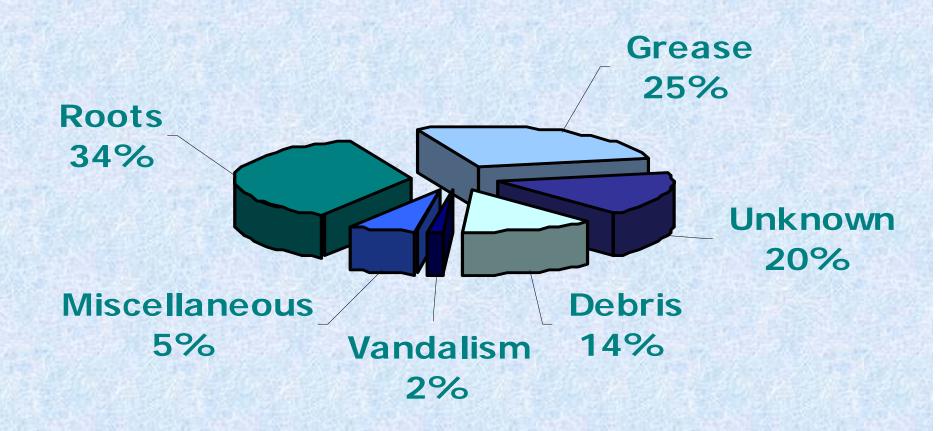
Number of Ocean and Bay Water Closures in Orange County Due to Sewage Spills



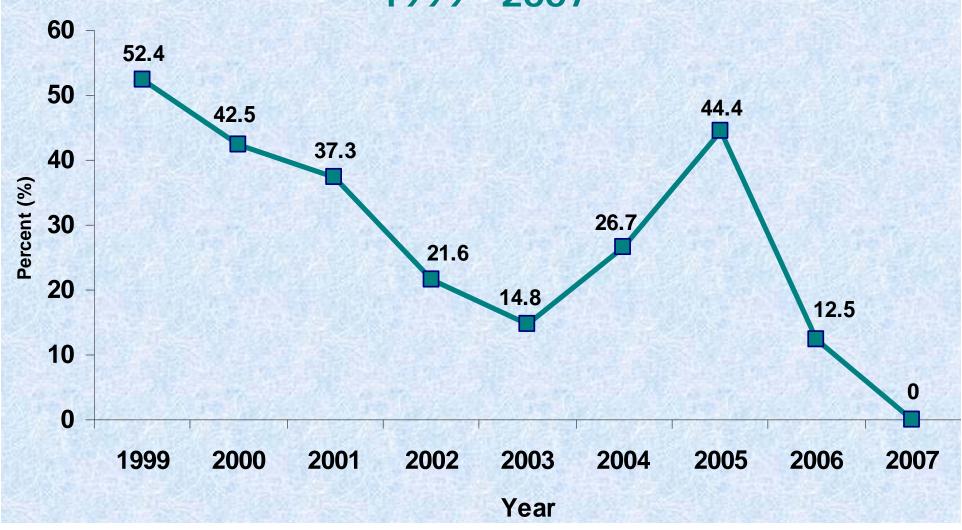
Causes of Ocean and Bay Water Closures 1999 – 2006

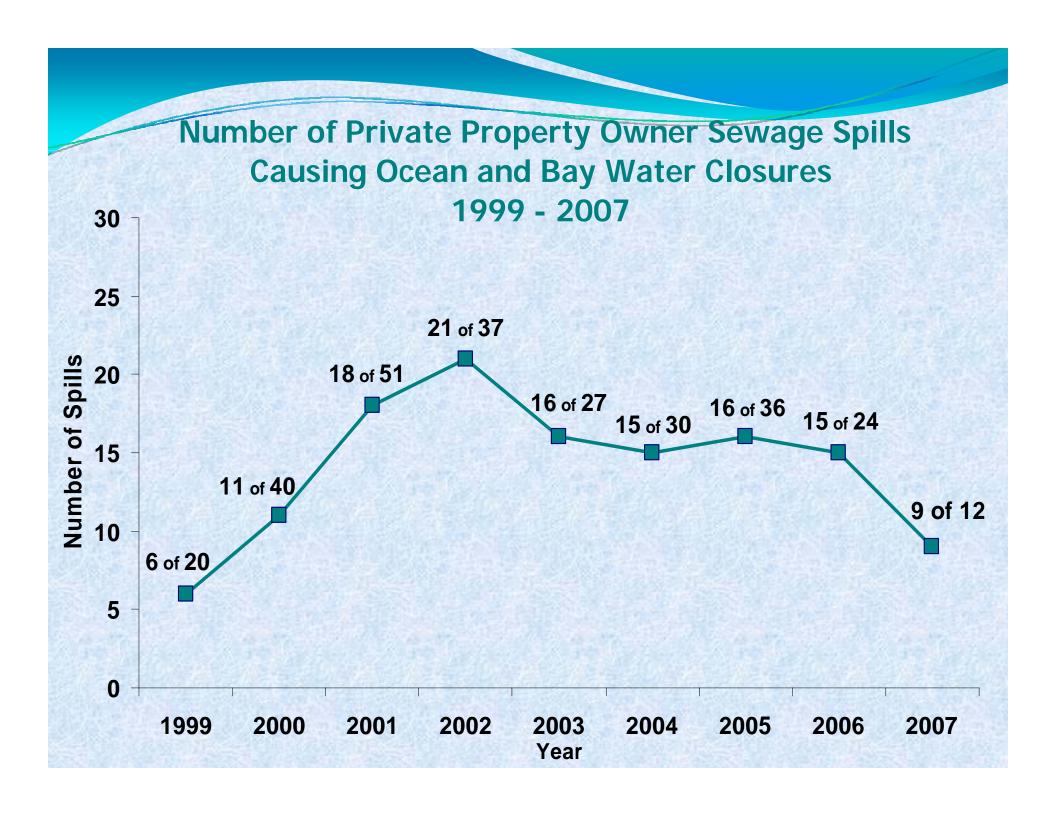


Types of Blockages Causing Ocean and Bay Water Closures 1999 - 2006





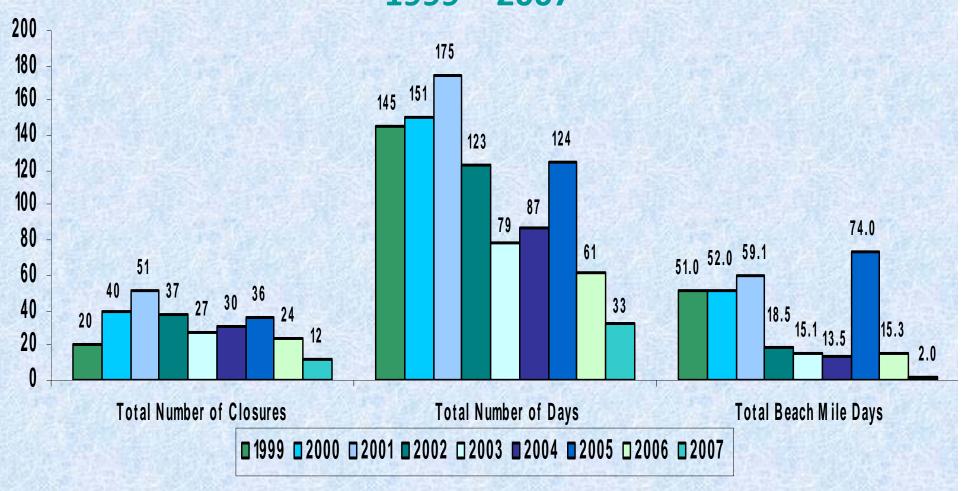


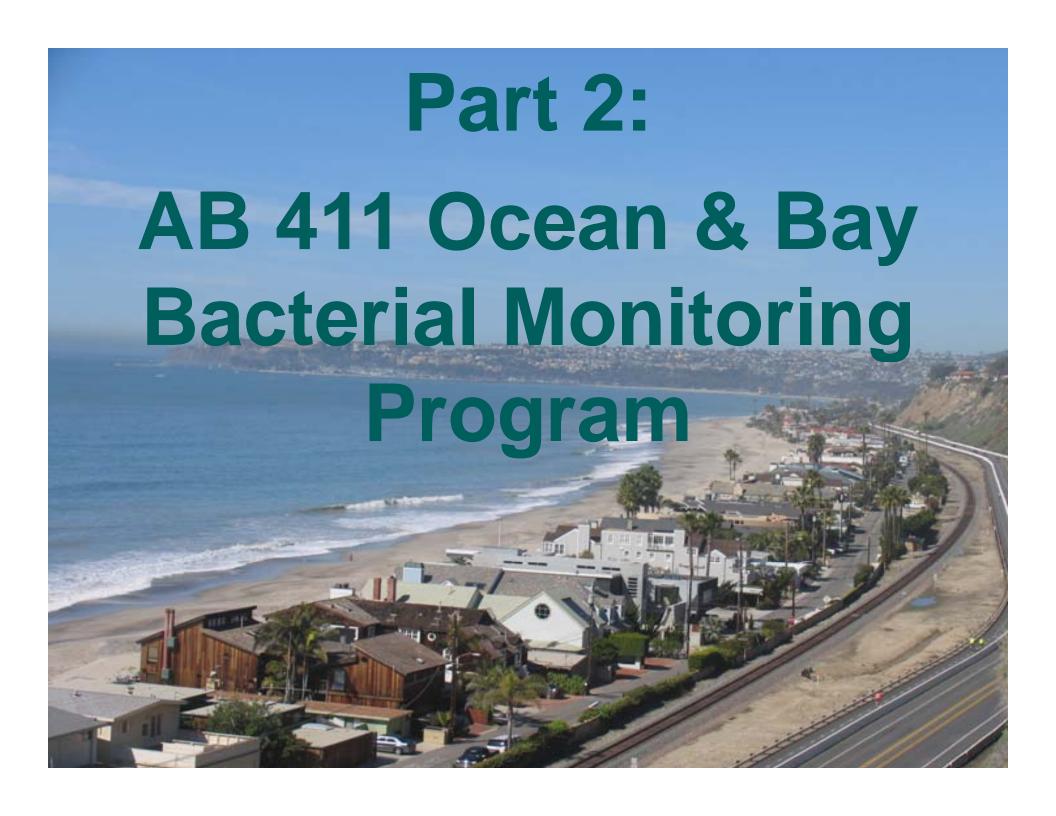






Total Number of Closures, Closure Days and Closure Beach Mile Days in Orange County Due to Sewage Spills from 1999 – 2007





AB 411 Components

- ·AB 411 regulations started on July 26, 1999.
- Standards more protective of public health.
- Uniform & consistent bacteriological water quality monitoring & standards for California.
- Weekly bacteriological water quality monitoring.
- Analyze for three indicator bacteria.
- ·April 1 through October 31 (yearly in O. C.).
- Beaches with at least 50,000 visitors per year.
- Beaches adjacent to flowing storm drains.
- Closure mandatory if sewage reaches ocean.

AB 411 State Ocean Water-Contact Sports Standards

- Single Sample Standards:
 - Total Coliforms 10,000 organisms/100 milliliters of sample
 - Fecal Coliforms 400 organisms/100 milliliters of sample
 - Enterococci
 104 organisms/100 milliliters of sample
 - Fecal:Total Coliform Ratio > 1000 Total Coliforms if ratio > 0.1
- 30-Day Log Mean Standards:
 - Total Coliforms 1,0
 - Fecal Coliforms
 - Enterococci

- 1,000 organisms/100 milliliters of sample
 - 200 organisms/100 milliliters of sample
 - 35 organisms/100 milliliters of sample



Who Does the Coastal Shoreline Bacteriological Water Quality Monitoring in Orange County?

County of Orange Environmental Health

Shoreline sampling, and determining standard compliance and posting locations for <u>all</u> samples. 75 surf zone, bay and harbor sampling locations.

Orange County Sanitation District

Shoreline sampling/Outfall at Huntington - Newport Beach.

Sampling from Bolsa Chica State Beach through Crystal Cove State Beach.

18 surf zone sampling locations.

South Orange County Wastewater Authority

Shoreline sampling/Outfalls at Aliso County
Beach & Doheny State Park Beach.
Sampling from Laguna Beach through San
Clemente State Beach.

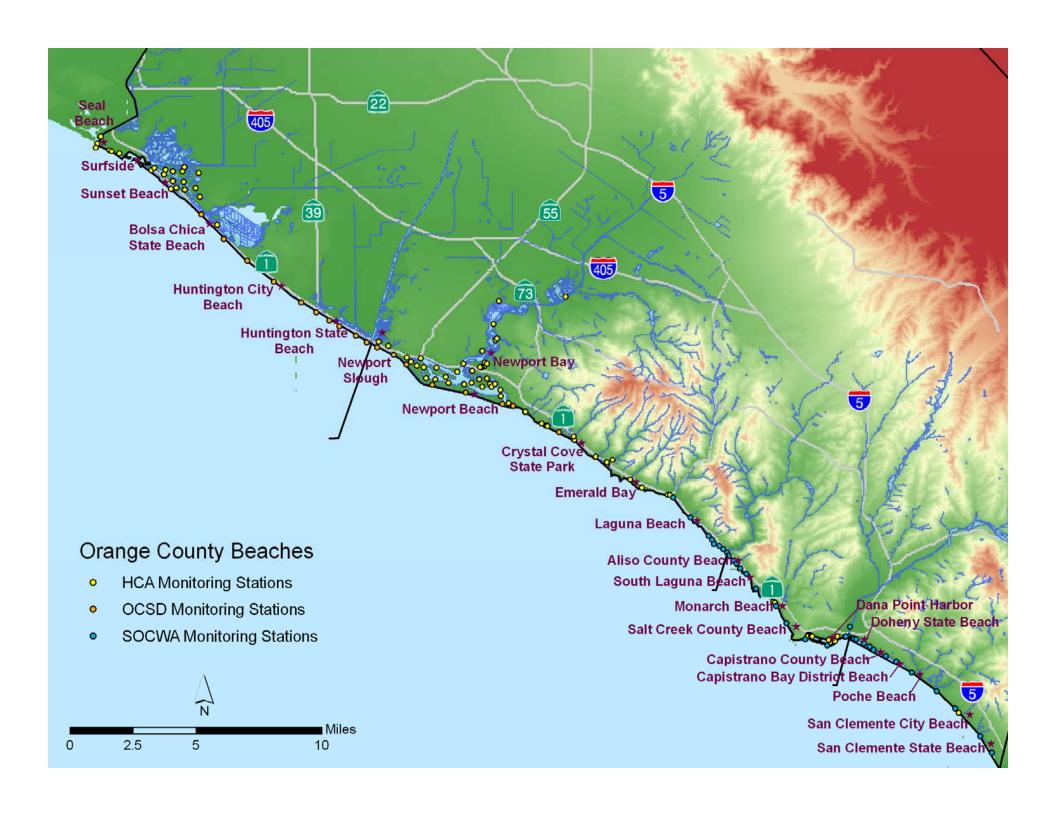
32 surf zone sampling locations.

~125 routine ocean, bay and harbor sampling locations.

~11,500 ocean, bay and harbor samples collected per year.

~34,500 bacterial analyses conducted by the three laboratories.

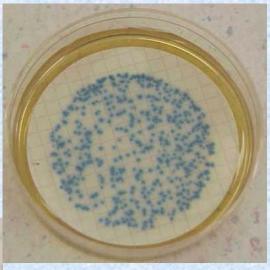
~80,500 standard compliance determinations made by Environmental Health.



Indicator Bacteria Testing – Membrane Filtration Method



Fecal Coliform Colonies



Total Coliform Colonies



Enterococcus Colonies

Warning Signs posted at Orange County Ocean & Bay Beaches



Posting or warning due to standard(s) violation.



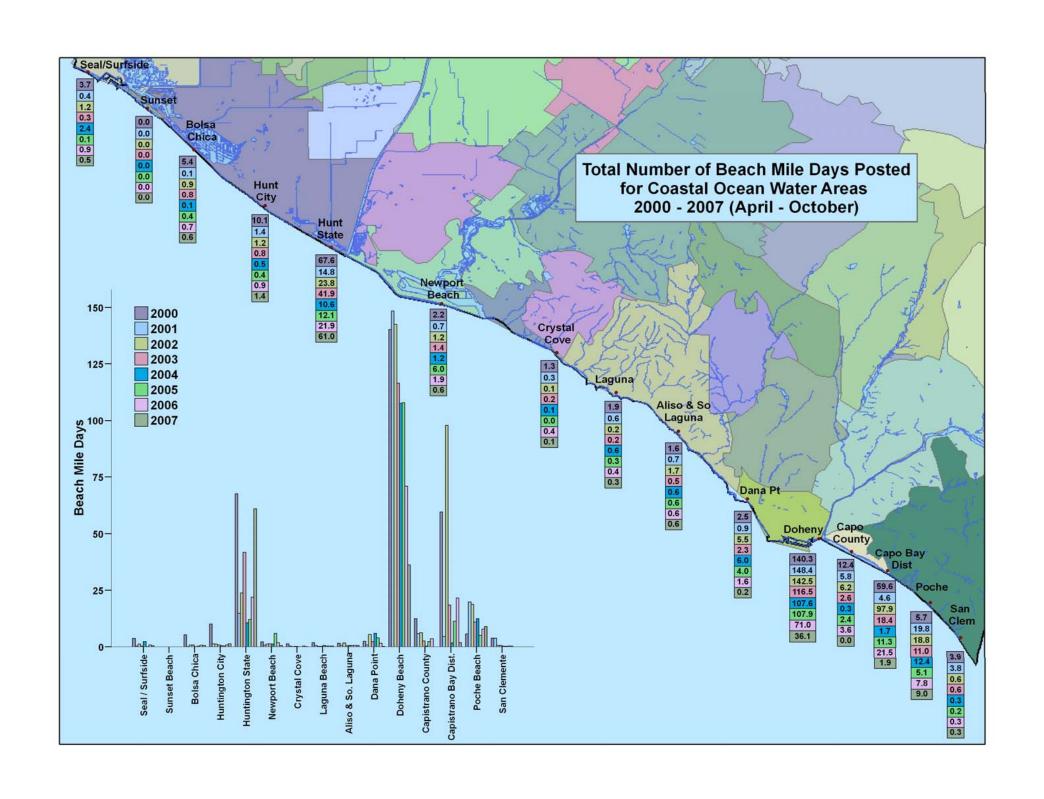
Warning at mouth of creeks, streams, rivers or channels.

Beach Postings, Closures and Rainfall Advisories

- Beach Postings & Closures result in:
 - Signs placed in the sand and at beach access points.
 - Recorded message on telephone hotline.
 - Web page notification.
 - Newspaper "Beach Watch" in O.C. Register.
 - Press release (if closure occurs, not for postings).
- 72-Hour "No Swim" Rainfall Advisories:
 - Recorded message on telephone hotline.
 - Web page notification.
 - Newspaper "Beach Watch" in O.C. Register.
 - Press release.

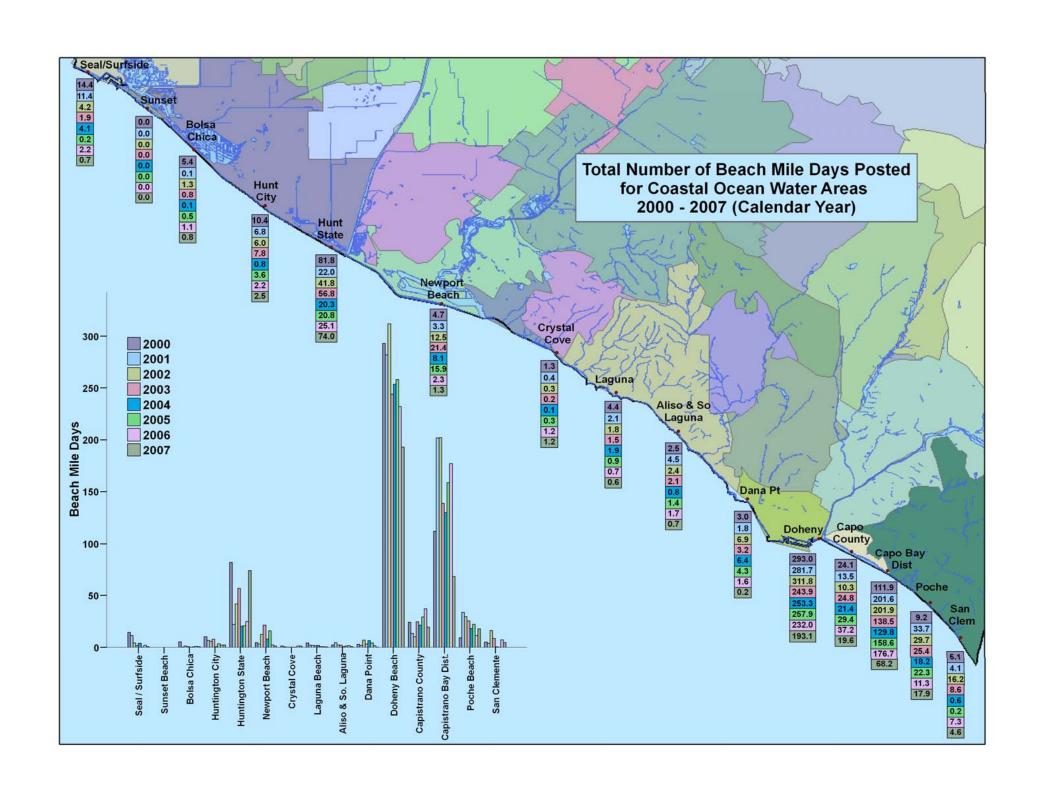
AB 411 Period (April–October) Postings for all Orange County Beach Areas 2000 - 2007

Year	Postings	Days	Beach Mile Days
2000	199	2,123	362.8
2001	208	2,454	282.4
2002	308	2,456	366.0
2003	160	1,732	247.5
2004	141	1,877	196.8
2005	102	1,512	197.6
2006	183	1,381	177.4
2007	116	1,037	139.0

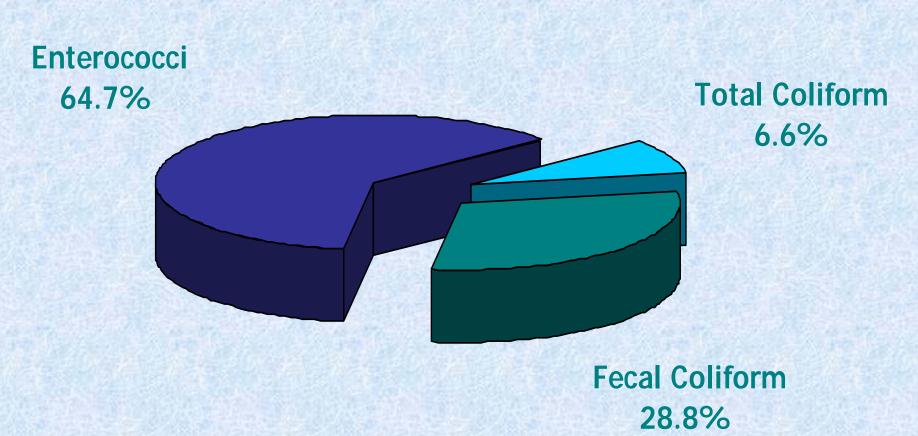


Calendar Year Postings for all Orange County Beach Areas 2000 - 2007

Year	Postings	Days	Beach Mile Days
2000	289	3,839	675.1
2001	321	4,563	716.8
2002	309	4,611	768.6
2003	309	3,875	644.4
2004	216	3,333	562.3
2005	203	2,938	600.7
2006	246	2,722	587.1
2007	203	2,019	434.4



Percentage of Postings by Indicator Bacteria 2000 - 2007 (April - October)



Postings by Beach Area



2000 - 2007

See our "2007 Annual Ocean and Bay Water Quality Report" at www.ocbeachinfo.com for beach by beach posting information.

Huntington State Beach

Sampling Agency: Orange County Sanitation District

Sampling Frequency: 5 samples per week

Sampling Stations: 5

Sampling Locations: Beach. Blvd., Newland Street, Magnolia Street, Brookhurst Street,

Santa Ana River Mouth Beach

Beach Miles: 2.5 miles of coastal beach

Available AB411 BMDs: 535 BMDs

Available Yearly BMDs: 912.5 BMDs

AB 411 PERIOD (APRIL – OCTOBER)

Year	Postings	Days	Beach Mile Days
2000	28	223	67.6
2001	29	70	14.8
2002	31	89	23.8
2003	21	72	41.9
2004	23	55	10.6
2005	14	55	12.1
2006	34	92	21.9
2007	27	112	61.0

Huntington State Beach

CALENDAR YEAR POSTINGS

Year	Postings	Days	Beach Mile Days
2000	36	255	81.8
2001	38	119	22.0
2002	42	158	41.8
2003	38	122	56.8
2004	33	90	20.3
2005	32	101	20.8
2006	37	109	25.1
2007	42	174	74.0

Doheny State Beach

Sampling Agency: SOCWA, County of Orange Environmental Health

Sampling Frequency: 1-2 samples per week (agency and season dependent)

Sampling Stations: 8

Sampling Locations: North Beach, 250' North of San Juan Creek, San Juan Creek/Ocean

Interface, 250' South of San Juan Creek, 1000' South of Outfall, 2000'

South of Outfall, 3000' South of Outfall, 4000' South of Outfall

Beach Miles: 1.1 miles of beach

Available AB411 BMDs: 235.4 BMDs

Available Yearly BMDs: 401.5 BMDs

AB 411 PERIOD (APRIL - OCTOBER)

Year	Postings	Days	Beach Mile Days
2000	9	165	140.3
2001	5	191	148.4
2002	7	216	142.5
2003	6	207	116.5
2004	12	226	107.6
2005	3	123	107.9
2006	11	130	71.0
2007	13	180	36.1

Doheny State Beach

CALENDAR YEAR POSTINGS

Year	Postings	Days	Beach Mile Days
2000	11	319	293.0
2001	6	368	281.7
2002	7	367	311.8
2003	6	358	243.9
2004	12	334	253.3
2005	4	266	257.9
2006	11	280	232.0
2007	13	330	193.1

What's going on...... Items of interest:

- •Back Bay Science Center County of Orange Board of Supervisors approved lease agreement with City of Newport Beach & lab staff will move in April-May.
- HCA Water Quality Research Advisory Panel.

Waste Discharge Requirements:

- Continued Sanitation Districts and Cities commitment to preventing and controlling spills.
- Cooperative FOG (Fats, Oils & Grease) Program.
- •Statewide Waste Discharge Requirements with new SSO reporting Executive Order.

Research:

- Epidemiological studies:
 - •Doheny State Beach restart May 30th (SCCWRP/UC Berkeley/OC Sanitation District/Heal the Bay).
 - Avalon if find funding, start up again July 4th.
 - •Surfrider Beach, Malibu if no funding for Avalon, will start this summer.
 - •Numerous new methods to be tested, as well as continuing rapid indicator method development.
- •Biofilms & sand regrowth of enterococcus bacteria SCCWRP microbiology research project for Bight '08.
- •TMDLs by SDRWQCB for South County beaches.

Significant resources continue to be applied to researching these issues. Southern California is the focal point for many of the efforts with extensive stakeholder collaboration.

Getting Ocean & Bay Water Quality Information

(Postings, Closures & Rain Advisories)



- Hotline (714) 433-6400
- · Web page www.ocbeachinfo.com

