



County of San Diego

Department of Environmental Health

Land and Water Quality Division

Beach and Bay Water Quality Monitoring Program

Background:

Since 1999 the Department of Environmental Health (DEH) has contracted with the California Department of Public Health to use funds from the Beach Safety Act (AB411) to perform water quality sampling and act as a clearing house for beach water quality monitoring data to notify the public when water quality standards are not met at recreational beaches (ocean and bays). The Beach and Bay Water Quality Monitoring Program coordinated the sampling and posting of signs warning of contaminated water at beaches affected by sewage spills, when monitoring indicated bacteria levels exceed State standards, or during other events that may pose a threat to public health.

In September of 2008 the Governor line item vetoed the funding (\$302K) from the State Budget and the Department of Environmental Health was unable to continue to provide the services without an alternative funding source. The County is mandated to implement the Beach Safety Act (AB411) only when the State has the funds to pay for the program.

Current Program Funding:

- Beach Water Quality Monitoring Program is currently funded by a \$600,620 contract from July 1, 2008 through June 30, 2010. The revenue for this contract is from existing unused Proposition 13 bond funds managed by the State Water Board
- The County has received a contract from the SWRCB for \$123,200 from ARRA 604(b) stimulus funds to continue funding from July 1, 2010 through October 31, 2010.
- No funding source currently identified after January 1, 2010; will have to terminate program
- Cost of current year-round program is approximately \$350,000 (1.6 staff years)

Possible Future Funding Options:

Short Term

- Work with San Diego Regional Water Quality Control Board (SDRWQCB) and State Board to allow funding of monitoring through a project funded by the Clean-up and Abatement Account for fines levied for local sewage releases.

Longer Term

1. Regional Water Quality Control Board NPDES Permit Funding

- The State Water Quality Control Board's Beach Water Quality Workgroup has proposed funding the beach water quality programs through the National Pollutions Discharge Elimination System
- The funding would come from municipal storm water permittees and waste water agencies that have ocean outfalls, as part of their surface water monitoring requirements.
- RWQCB's would work with local agencies to redirect some of the monitoring resources to ensure beach water quality monitoring.
- This model is currently being developed in Orange County and could be used by other jurisdictions.
- Needs to be reviewed by many stakeholders groups in San Diego County before it would be considered acceptable here.

2. State Water Quality Control Board Waste Discharge Permit Surcharge
 - The State Water Board's Beach Water Quality Workgroup has proposed funding the beach water quality programs through a beach water quality surcharge placed on Waste Discharge Requirement (WDR) permits issued by the local Regional Boards
 - This funding mechanism is being investigated by the State Board management and would require a change in law

Monitoring Program:

DEH evaluated the data from the previous 5 years of beach water quality monitoring and starting in 2009 chose to sample 44 locations versus the 55 locations previously sampled between April 1st and October 31st. We used data from previous exceedances, proximity to potential sources of contamination, number of users and accessibility in our analysis of potential locations. The 11 locations that were removed from the sampling program had very few to no advisories over the last 5 years. This risk based approach allows DEH to continue to provide quality public health notifications while addressing increased costs and lower revenues. In addition to the 44 locations that DEH samples, we also analyze and take action on the beach monitoring data provided by the waste water agencies at 41 other locations.

DEH increased the number of locations sampled during the wet weather season (November 1st- March 31st) from 13 to 15. For most of the State, the dry weather season is considered to have the highest beach attendance and therefore the State contract is limited to that time period. Because of San Diego's temperate climate, there is still high beach attendance during the "wet weather" months and also higher risks as a result of rain washing urban runoff onto beaches and into the ocean. The winter high risk locations are based upon actual year-round recreational water use and the potential for contamination from sewage, non-point sources, and lagoons draining large urbanized areas. In addition to the 15 locations that DEH samples, we also analyze and take action on the beach monitoring data provided by the waste water agencies at 41 other locations. DEH has limited funding to perform this monitoring through the use of US EPA Beach Act funds.

Program Components:

Testing, Monitoring and Data Analysis

Dry Weather (April 1st through October 31st)

- Sample 44 locations (51 samples) every week
 - Analyze sampling data from these 44 locations
- Analyze sampling data from another 41 locations provided by wastewater agencies, Oceanside and Coronado
- Post advisories when standards are exceeded and resample until health standards are met

Wet Weather (November 1st through March 31st)

- Sample 15 high risk locations (20 samples) each week
 - Analyze sampling data from these 15 locations
- Analyze sampling data from another 41 locations provided by wastewater agencies, Oceanside and Coronado
- Post advisories when standards are exceeded and resample until health standards are met

Risk Analysis, Mitigation and Communication

Year Round

- Analyze sewage spill reports
- Public notification of water quality
 - Phone hotline **(619) 338-2073**
 - The DEH website www.sdbeachinfo.com

- Press releases, when needed
- Analyze reports of sewage spills to determine whether they create a risk to public health and if so, notify the public and coordinate re-sampling activities.
- Notify public of risk of swimming after rain events
- Coordinate re-sampling and source investigations with coastal jurisdictions, as needed
- Transfer local beach water monitoring data from all sources to public web pages and to state regulatory agencies.
- Provide public health risk input on technical advisory committees that guide sanitary surveys and source identification studies at contaminated beaches.
- Perform training and public outreach regarding beach water quality to Lifeguard staff and at summer surf camps, marine science classes and local public schools.

Proposed DEH Sample Locations:

DEH is taking a risk based approach in determining the locations to be sampled. We are using data from previous exceedances, proximity to potential sources of contamination, number of users and accessibility in our analysis.

LOCATION	BEACH	Summer (S) Dry Weather Sampling Frequency	Winter (W) Wet Weather Sampling Frequency	Note
San Mateo Creek outlet, "Trestles"	San Onofre State Beach	1		IF FLOW
Buena Vista Lagoon outlet	Oceanside City beach	1	1	IF FLOW
Batiquitos Lagoon outlet	South Carlsbad State	1	1	
Tamarack	Carlsbad State Beach	1	1	
Cottonwood Creek outlet	Moonlight State Beach	2	2	
San Elijo Lagoon outlet	Cardiff State Beach	2	2	
Seascape Beach Park	Solana Beach City Beach	1		
San Dieguito River beach	City of Del Mar beach	2	2	
Torrey Pines (Lagoon outlet)	Torrey Pines State Beach	2	2	
La Jolla Cove	La Jolla Community beach	1		
Tecolote (playground watercraft area)	Mission Bay	1		
Leisure Lagoon	Mission Bay	1		
Visitors Center (shoreline)	Mission Bay	1		
Tecolote Shores, swim area	Mission Bay	1		
comfort station, Leisure Lagoon	Mission Bay	1		
swim area next to Wildlife Ref	Mission Bay	1		
Crown Point	Mission Bay	1		
Fanuel Park	Mission Bay	1		
swim area at Bahia Point	Mission Bay	1		
Ski Beach, Vacation Isle	Mission Bay	1		
North Cove, Vacation Isle	Mission Bay	1		
De Anza Cove (swim area)	Mission Bay	1		
Camp Land	Mission Bay	1		
Bonita Cove, eastern shore	Mission Bay	1		
San Diego River outlet (Dog Beach)	Ocean Beach	2	2	

Shelter Island	San Diego Bay	1		
Tidelands Park (Coronado bayside)	San Diego Bay	1		
15th St.	City of Del Mar beach	1	1	
Swami's Beach	Encinitas City Beach	1		
Warm Water Jetty	Carlsbad State Beach	1		
Wisconsin Str	Oceanside City beach	1		
SLR River mouth	Oceanside City beach	1	1	
Tourmaline (PB Point)	Pacific Beach	1	1	
PB Point	Pacific Beach	1		
Playa Del Norte	La Jolla Community beach	1	1	
Nicholson Pt.(Horseshoes/ frmly Ravina)	La Jolla Community beach	1		
Coast Blvd gazebo	La Jolla Community beach	1		
South Casa Beach	La Jolla Community beach	1		
Ave De La Playa	La Jolla Community beach	1	1	
Glorietta Bay	San Diego Bay	1		
Bayside Park (J Street)	San Diego Bay	1		
Spanish Landing	San Diego Bay	1		
Kellogg St/ Laurance. (at beach)	San Diego Bay	1		
IB Pier	Imperial Beach	1	1	
Cortez Street	Imperial Beach		1	