

Water Quality Report Card	
Regional Water Board:	Santa Ana, Region 8
Beneficial Uses Affected:	REC1
Implemented Through:	MS4 Permit and Source Management Plan
Effective Date:	1999
Attainment Date:	To be determined

Pathogens/Fecal Indicators in Newport Bay					
STATUS	<input type="checkbox"/> Conditions Improving <input type="checkbox"/> Data Inconclusive <input checked="" type="checkbox"/> Improvement Needed <input type="checkbox"/> Targets Achieved/Water Body Delisted				
	Pollutant Type: <input checked="" type="checkbox"/> Point Source <input checked="" type="checkbox"/> Nonpoint Source <input type="checkbox"/> Legacy				
	Pollutant Source:	<table border="1"> <tr> <td>Urban Storm Water Runoff</td> <td>Non-Point Source Runoff</td> </tr> <tr> <td>Naturally Occurring</td> <td>Unknown</td> </tr> </table>	Urban Storm Water Runoff	Non-Point Source Runoff	Naturally Occurring
Urban Storm Water Runoff	Non-Point Source Runoff				
Naturally Occurring	Unknown				

Water Quality Improvement Strategy

Newport Bay is located in central Orange County and is listed as impaired on the USEPA Clean Water Act 303(d) List due to exceedances of the fecal coliform (FC) water quality objective for contact recreation (REC1). The presence of pathogens is inferred from high fecal coliform concentrations, a common indicator of fecal contamination. Pathogens pose potential health risks to recreational users and shellfish harvesters. A [TMDL for Fecal Coliform in Newport Bay](#) was adopted by the Santa Ana Regional Water Board in 1999. The TMDL is implemented through Municipal Separate Stormwater System (MS4) permits and a [Source Management Plan](#).

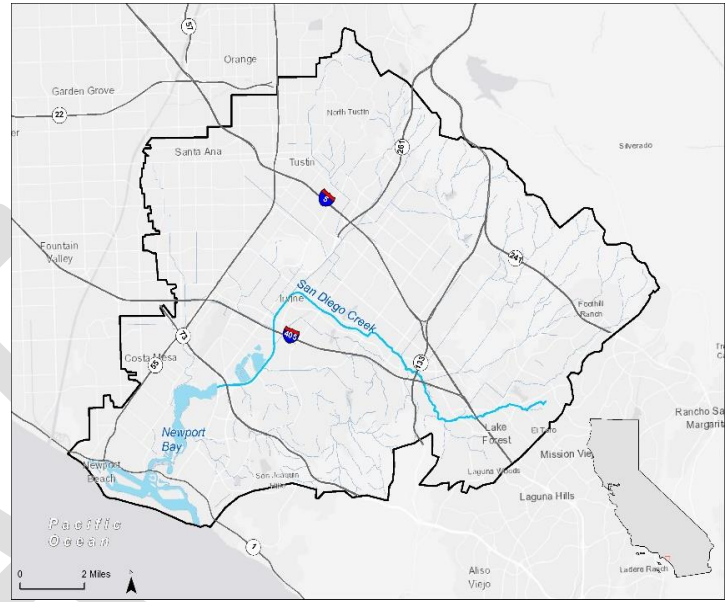
Although fecal coliform continues to exceed the **FC TMDL** target based on Single Sample Maximum (SSM), most exceedances occur during the wet season. Pathogens in Newport Bay are from human sources in the watershed, but a fraction of detected indicator bacteria may be from natural sources. Bacterial numeric objectives for REC1 are being revised from SSM for fecal coliform to a Statistical Threshold Value (STV) for enterococcus, in accordance with USEPA recommendations. Water Board staff plan to revise the REC1 bacterial TMDL targets, but further studies are required to identify and quantify potential natural sources.

TMDL Fecal Coliform and Enterococcus Numeric Targets

Indicator	Geometric mean	SSM/STV ¹
Fecal Coliform ²	200 MPN/100 mL, 30-day rolling average	<10% above 400 MPN/100 mL in any month
Enterococcus ³	30 MPN/100 mL, 6-week rolling average	<10% above 110 MPN/100 mL in any month

- SSM and STV have similar definitions and apply almost exclusively to rain events or direct sewage contamination
- FC targets (1999) will be superseded by ENT after adoption of a Basin Plan Amendment.
- ENT objectives come from USEPA recommendations (2012)

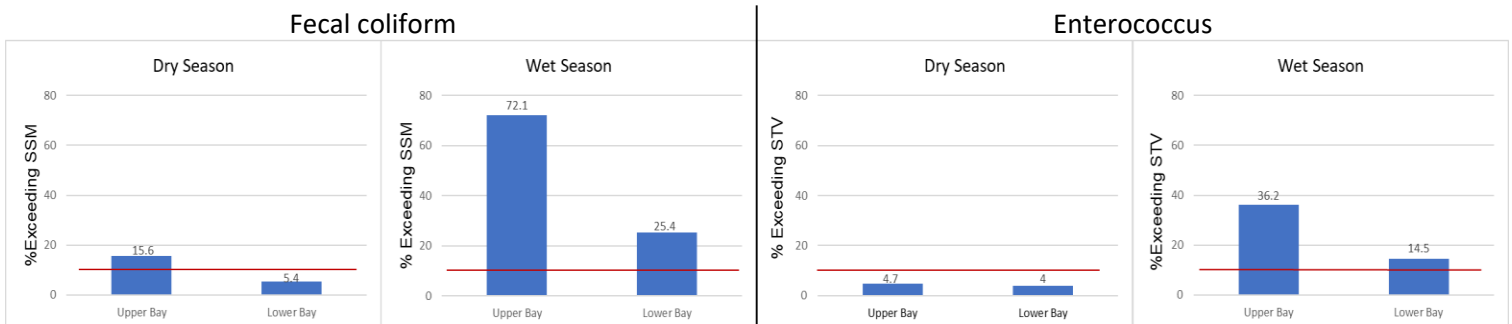
Watershed Map



Water Quality Outcomes

- Enterococcus levels during dry weather meet water quality objectives when the data are assessed over the entire water body.
- A few specific locations still frequently exceed objectives during dry weather.
- Improvements in these isolated locations will be more cost-effective than watershed-wide measures that have already been implemented since the TMDL was adopted.
- Site-specific measures could be implemented by single action directives
- Accurate source tracking will inform revisions of wet weather exceedance thresholds and the SSM/STV objectives can be modified accordingly.

Water Quality -Percent of samples exceeding SSM/STV (2010-2016)



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NOTE: This information will **not** be posted; it will be used to prioritize implementation actions, assess the effectiveness of those actions and provide information on the development of USEPA SP-12 and WQ10a Reports.

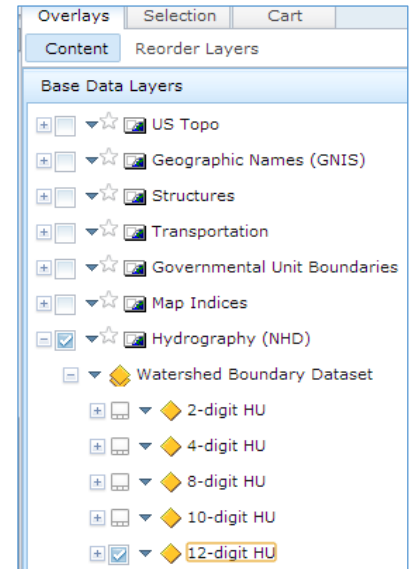
1. Regional Board contact/expert:

Name: Jason Freshwater _____
 Phone number: 951-782-4130 _____
 Email: Jason.freshwater@waterboards.ca.gov _____
 Supervisor's Name: Terri Reeder _____

2. Select the Pollutant Category (ies) for this impaired waterbody: Pathogens

3. Provide watershed location by Hydrologic Unit(s) (HUC) at HUC 12 level. Please include all HUC 12 values for the watershed.

The HUC12 Code is 12 digits; the stream reach code is 14 digits. HUC12 can be identified using the USGS National Map Viewer (<http://viewer.nationalmap.gov/viewer/>). Turn on HUC12 layer by clicking through the following pull downs on the right side of the page: Overlays>Content>Base Data Layers >Hydrography (NHD)>Watershed Boundary Dataset>12-digit HU.



- HUC 12: 18070204 _____
- HUC 12: _____
- HUC 12: _____

4. List the Major Stakeholder Groups (e.g. agriculture, stormwater, watershed groups, etc.) Include State and Regional Water Board programs.

- State Water Resources Control Board and Santa Ana Regional Water Quality Control Board
- Orange County MS4 Permittees
- Orange County Coastkeeper
- Recreational Boat Owners
- Local Businesses and Resorts

5. Provide the following information for each implementation action taken (if you require more rows to describe implementation actions, please add them):

Implementation Action	Result of Implementation Action	Action Taken By (Y/N)		
		Discharger	CWA 319(h) Staff	Other
Treatment measures	Reduction in bacterial loading	Y		
Volume reduction measures	Reduction in bacterial loading	Y		
Source control measures	Reduction in bacterial loading	Y		

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6. Has the State devoted any resources to these implementation actions?

a. Complete table:

Funding Resource	Yes	No
California CWA 319(h) Project funds		X
SWAMP, CAF, etc.		X
California Prop 1, 84, 50, 40, 13, etc. funds	X	
California State Revolving Fund – CWSRF and/or DWSRF		X
Federal funds – US EPA, USFS, BLM, USDA, NOAA, etc.		X
Other Agencies (e.g., CDWR, CDPR, CDFA, CDOC, CDFW, etc.)		X

b. If CWA 319(h) grant project funds were used provide the grant project numbers:

-
-
-

7. Have the Dischargers devoted any private resources to these implementation actions? (Briefly describe).

Discharger	Resources – Financial or In-kind	Amount	When
County of Orange	Financial and In-kind	Dischargers have never prepared an accounting of this information	2000-2018

8. What are the next steps based upon results described in question #5?

(If you require more rows to describe next steps, please add them.)

Next Steps	By When	By Whom
Basin Plan Amendment to incorporate enterococcus for the Bays and Estuaries REC1 bacterial objectives	2022	SARWQCB
Accurate and conclusive sanitary surveys at areas that consistently fail to meet objectives	2022	County of Orange and MS4 co-permittees

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Accurate identification and reliable quantification of natural source loads to Upper and Lower Newport Bay	2022	County of Orange and MS4 co-permittees

Status Definitions

(select checkbox for one (1) status that best describes the water quality improvement project)

Conditions Improving

Water quality data and/or other indicators demonstrate improvement; **BUT**
The final water quality targets not consistently being met.

Data Inconclusive

Not enough data (of acceptable quality) has been collected to demonstrate that the water quality targets are consistently met; **OR**
Variability in data do not permit a determination in water quality trends (positive or negative).

Improvement Needed

Final water quality targets not consistently met; **AND**
In Water Board staff judgment, water quality data and/or other indicators demonstrate that water quality is either declining or not improving.

Targets Achieved/ Water body Delisted

Water quality data or other information demonstrate that final water quality targets are consistently met; **OR**
The water body has been removed from the 303(d) list.

Glossary *(on [Outcomes Page](#))*

Attainment Date

The attainment date is the projected year water quality targets are expected to be achieved. The attainment date is estimated based on available information at the time of the most recent update to the water quality restoration plan. The attainment date is subject to change.

Beneficial Uses

Beneficial uses define the uses of water. The California Water Code defines beneficial uses of the waters of the state as uses that may be protected against quality degradation include, but are not limited to: domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

Effective Date

The effective date is the date upon which the TMDL or other implementation action (e.g., Cleanup and Abatement Order) is considered to take effect.

Impaired Water (Listing)

An impaired water is a water body that does not meet the water quality objectives or protect the beneficial uses of the water due to the presence of one or more pollutants. Such waters are identified on the Water Boards' Clean Water Act Section 303(d) list. These impaired waters are sometimes called "listings".

Implementation Outcome Status Assessed

A summary report has been prepared showing the outcome of implementing water quality restoration plans (TMDLs or other approach) that have already been adopted. It is important to note that Regional Boards may be implementing water quality restoration plans (e.g., incorporating TMDL requirements into permits, reviewing water quality data, etc.) for projects for which a Water Quality Improvement Report Card has not yet been created.

Pollutant

A pollutant is a waste or substance that alters the quality of the waters to a degree which unreasonably affects the waters for beneficial uses. The monitoring programs of the Water Boards and others provide information on the levels of pollutants in the State's waters.

Pollutant Type (select checkboxes for all applicable pollutant types)

Point Source Pollutant

Point source pollutants are pollutants that are, or may be, discharged from any discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft.

Nonpoint Source (NPS) Pollutant

Nonpoint source pollutants are pollutants that are or may be discharged from diffuse sources without a single identifiable point of origin. These discharges include, but are not limited to, runoff from agriculture, forestry, grazing, hydromodification, wetlands, and marinas and recreational boating activities.

Legacy Pollutant

Legacy pollutants are pollutants that are primarily the result of historical contributions. Legacy pollutants are the residual from activities such as mining, manufacturing, and agricultural no longer practiced and include some pollutants currently banned by regulation. These pollutants have the common characteristic of persistence in the environment and may have an affinity for sediments. Typically, the decline in environmental legacy pollutant concentrations occurs as a result of natural attenuation processes. The pesticide DDT is an example of a legacy pollutant.

Water Quality Objective

The limit or level of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

Water Quality Target

The water quality target is a description of the desired condition in the watershed or water body. Typically, targets are tied to specific water quality standards that provide measurable goals for the water quality restoration plan.