Item 6
Richardson Bay Pathogens TMDL

State Water Resources Control Board

August 4, 2009

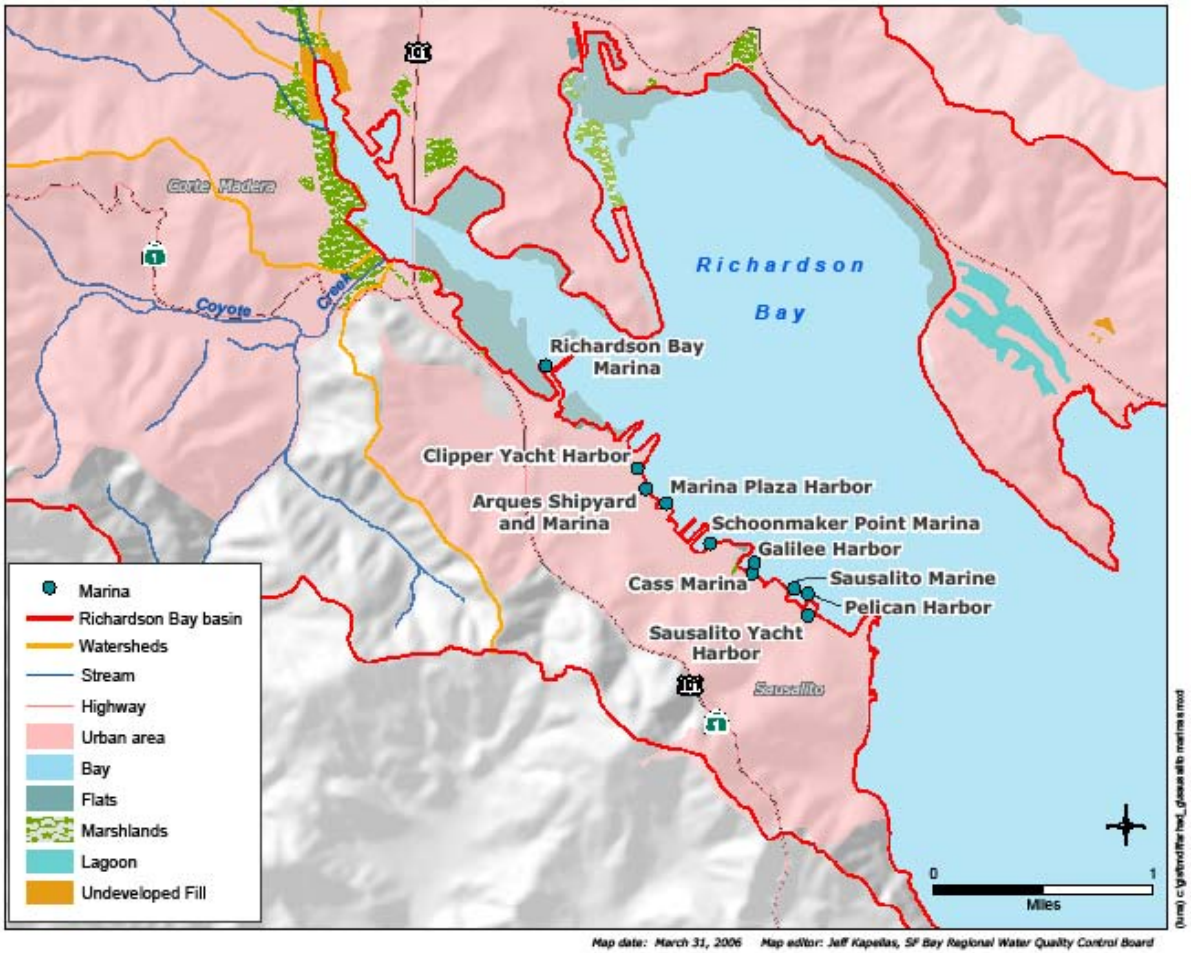
Amendment

- Adopted July 9, 2008
- Sets numeric density-based targets for pathogen indicators (fecal coliform & enterococci)
- Protects shellfish harvesting and water contact beneficial uses

Comments

- State board received two comment letters
- Staff recommends approval
- Questions

Richardson Bay



Problem Statement

- 303(d) listing for coliform bacteria
- Pose potential health risks to recreational uses and shellfish consumers
- Highly urbanized area
- “No vessel waste discharge zone”

Pathogen Source Categories

- Sanitary sewer lines
- Stormwater runoff
- Houseboats (floating homes)
- Vessels (recreational, live-aboard, anchor-out boats)
- Wildlife*

* wildlife not a readily controllable source

Pathogen Indicators

Direct monitoring for all pathogen indicators is not usually feasible so indicator bacteria are used:

- Fecal coliforms
- *E. coli*
- Enterococcus

TMDL and Water Quality Targets

- **Water Quality Targets**

  Shellfish harvesting objective

  < 14 fecal coliform/100 mL

  Water contact recreation objective

  < 200 fecal coliform/100 mL

- **TMDL**

  Shellfish harvesting objective

  < 14 fecal coliform /100 mL

Source Category	Allocation Fecal Coliform (MPN/100 mL)	
	Median[a]	90th Percentile[b]
Stormwater Runoff	< 14	<43
Wildlife	< 14	<43
Sanitary Sewer Lines	Zero	
Houseboats	Zero	
Vessels	Zero	

a. Based on a minimum of five consecutive samples equally spaced over a 30-day period.
b. No more than 10% of total samples during any 30-day period may exceed this number.

Implementation

- Continue and improve upon existing actions
- Rely on existing regulatory programs and prohibitions
- Establish monitoring and adaptive management program

Actions to Reduce Contributions from Municipal Runoff

- Comply with stormwater management plans
- Update plans as needed to include specific measures to reduce pet and human waste

Photo of storm drain inlet discharging to the Bay

Actions to Address Sanitary Sewer Line Failures

- Comply with Board's Sanitary Sewer overflow program

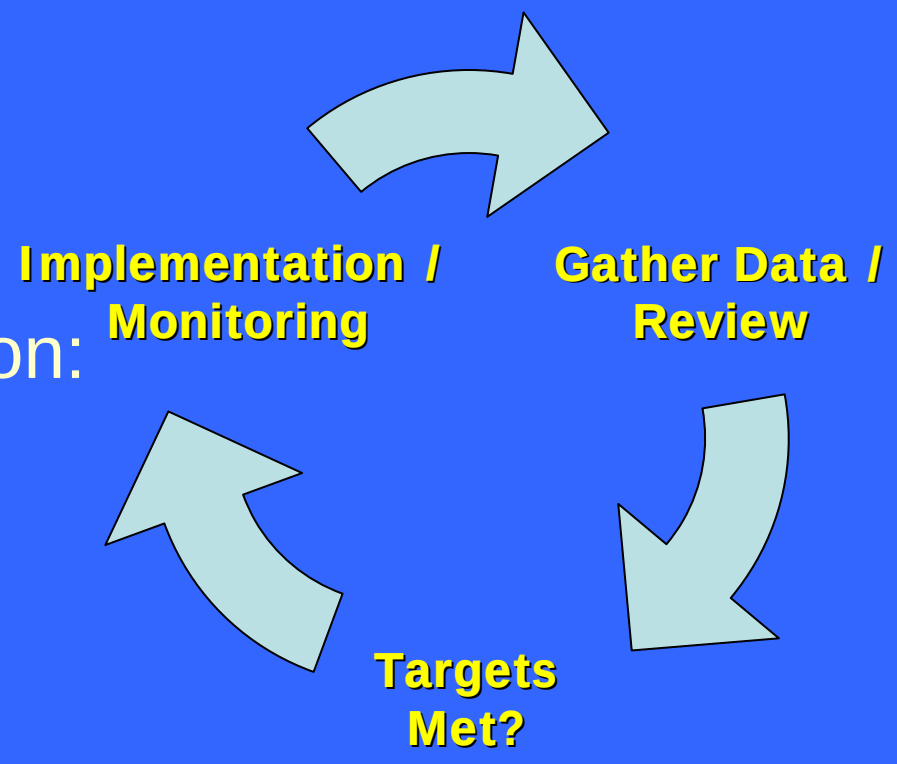
Actions to Reduce Contributions from Houseboats and Vessels

- ➔ Comply with waste discharge prohibitions
- ➔ Evaluate adequacy and integrity of waste handling systems
- ➔ Make necessary improvements to ensure no waste is discharged into the Bay

Monitoring and Adaptive Implementation

- Water quality monitoring plan to track progress and prioritize implementation

- Adaptive implementation: Take action now, and continue to gather information



Recommendation

- Approve the Amendment to incorporate the TMDL in the Regional Board Basin Plan
- Questions?