

RICHARDSON'S BAY REGIONAL AGENCY

Thursday, August 21, 2008

5:30 P.M. to 7:30 P.M.

Sausalito City Council Chambers 420 Litho Street Sausalito, CA

PUBLIC COMMENT IS INVITED CONCERNING EACH AGENDIZED ITEM PURSUANT TO THE BROWN ACT. PLEASE LIMIT YOUR COMMENTS TO THREE (3) MINUTES.

AGENDA

5:30 P.M. CALL TO ORDER - ROLL CALL

1. Conference with legal counsel – existing litigation pursuant to Government Code Section 54956.9(a.) Name of case: Alfred J. Abono, Jr. v. Richardson Bay Regional Agency (Marin Superior Court Case No. 083058)
2. Conference with legal counsel – anticipated significant exposure to litigation pursuant to Government Code Section 54956.9: 1(b) potential case.
3. Approve minutes of June 19, 2008 Meeting
4. Review report of Harbor Administrator
5. Approve prior expenditures for June 2008
6. Review RBRA audit by Maher Accountancy for fiscal years 2006 and 2007
7. Discuss adopted TMDL plan for Richardson's Bay
8. Status report on website development
9. Status report on Bay Strategic Plan
10. Public comments invited concerning items NOT on this Agenda (3-minute limit)
11. Staff comments
12. Board member matters

Adjourn. **NEXT MEETING:** Tentatively planned for October 16, 2008. Please review your calendars and advise Staff as to your availability.

A COMPLETE AGENDA PACKET IS AVAILABLE FOR VIEWING AT THE SAUSALITO CITY LIBRARY.

TO RECEIVE AN ELECTRONIC MEETING NOTICE, PLEASE EMAIL REQUEST TO DON ALLEE AT dallee@co.marin.ca.us

RICHARDSON'S BAY REGIONAL AGENCY

MEMORANDUM

August 21, 2008

TO: RBRA Board
FROM: Ben Berto, RBRA Clerk
SUBJECT: August meeting

Board members:

At last count we have a three person quorum. Staff hopes Board members understand the purpose of the attendance rechecking was to avoid a lack of quorum surprise on meeting day. So far so good, with McGlashan, Albritton, and Collins attending. Let me and Bill know if anything changes so we can respond accordingly. Please also note the agenda shows that the meeting starts at 5:30 with two closed sessions involving legal items.

A question arose about the "special relationship" issue, so staff is including a letter County Counsel previously wrote to a property owner on this issue, hopefully settling it.

The Harbormaster vacationed some during this the quiet season. His items are fairly brief. The biennial audit has been completed (attached to packet). The audit made some minor comments primarily reflecting the size of our agency. They also report on the lack of year-end closing (noted by staff as a Count issue at an earlier meeting), which has since been corrected.

Progress continues on the Bay Strategic Plan effort. In the interim since the last meeting, Staff attended two Sausalito community group meetings (Waterfront and Marinship Committee and Richardson Bay Maritime Association) to give those groups an overview of the RBRA's efforts to date regarding our planning efforts including a mooring field, and solicit their feedback. The comments received were largely positive (more details to be provided at the meeting).

Staff anticipates a draft web address template will be available for Board members to evaluate at the meeting. RBRA has also succeeded in securing a domain name (www.rbra.ca.gov). Once the webpage format and content have been finalized, we will contract with a server to go online. A web address will further assist our efforts to inform the public about what the RBRA is all about.

Staff is still awaiting year-end budget figures (the reason we have not included a close-out pie chart in the packet). We will provide the most current figures for the meeting.

See you next Thursday.

RICHARDSON'S BAY REGIONAL AGENCY
MINUTES OF JUNE 19, 2008
HELD AT SAUSALITO CITY HALL CHAMBERS

MEMBERS PRESENT: Board Chair Jerry Butler (Belvedere); Paul Albritton (Sausalito); Dick Collins (Tiburon); Acting Chair Charles McGlashan, (Marin County); Ken Wachtel, (Mill Valley)

ABSENT: none

STAFF: Bill Price (Harbor Administrator); Ben Berto (RBRA Clerk)
Meeting called to order at 5:30 PM

Pledge of Allegiance

Minutes of Board Meeting on April 17, 2008 and Workshop on May 25, 2008

During public comment, Mr. Peter Moorhead asked if the May workshop had been properly noticed. Chair Butler stated that he had personally read a notice in the Ark, and Mr. Berto said notice had been sent out, but that he had not seen it in the IJ. Chair Butler asked Staff to investigate whether the IJ had been given notice of the meeting. Mr. Moorhead also disagreed with the Marin County Counsel's opinion that the RBRA does not have a "special relationship" that requires the protection of private shoreline from private vessels. Member McGlashan stated that while this service is not required, the RBRA does its best to address the problem within its means. Members Albritton and Wachtel asked Staff to confirm that the local news media was advised of all meetings in the future.

Minutes were approved unanimously

Report of Harbor Administrator

After a brief discussion of the disposed vessel list provided by Staff, the report was accepted unanimously.

Approval of prior expenditures for April and May, 2008

Staff clarified that Dave's Diving was hired as a dive salvage contractor, and that they were not working as part of the Rapid Response program. Prior expenditures were approved unanimously

Bay Strategic Plan update

Mr. Berto began by presenting the talking points that he intended to present as part of the public outreach component at upcoming Sausalito community groups' meetings on the waterfront. He outlined Clem Shute's work in preparing the regulatory structural analysis and said that unfortunately, Mr. Shute would not have the Boalt interns to assist him. Chair Butler wanted the website to be integrated into the plan in order to have an informed exchange with the public. He also asked for a set of JPA goals and a timeline, which could be evaluated by the public. Member McGlashan asked for a strategic

overview that would reconfirm that the Mooring field was the best solution. Chair Butler wanted to find a way to break up the work required in organizing the Bay by going after the unregistered abandoned derelicts first and saving the hardest for last. He also asked that Staff endeavor to keep the census up to date, which Mr. Berto commended saying it would be a prerequisite for the BCDC.

Member Albritton asked if we had a clear determination on moving forward with a full-bore plan or if a slow growth recreation-first plan might make more sense in context of the May Workshop. He wanted to review the workshop recordings. He also stated that it was important to collect public opinion carefully, with careful presentations and refined goals. Member McGlashan asked that Member Albritton accompany Mr. Berto in the upcoming presentations.

During public comment, Peter Moorhead stated that he thinks people had given up on the RBRA. He asked the Board to focus more on enforcement and to direct the Harbor Administrator to spend 50% of his time in that effort.

Member McGlashan responded that the RBRA has been faced with the anchorout issue since the time of Supervisor Aramburu. The RBRA does a good job with very limited resources. No direction has been given not to enforce. He said that if anchorout issues were minor, they would have been resolved years ago, and that through careful analysis, the Mooring Field was identified as the best option for achieving the RBRA's overall goals. He felt that a strict enforcement approach underestimates the complexity of the issue. BCDC suffered a major budget reduction when they attempted that approach. Member McGlashan he did not anticipate bringing in extra enforcement to address the perceived problem, but that our approaches are beginning to achieve results.

Member Albritton brought the discussion on the Bay Strategic Plan, and suggested revisiting its goals and objectives. Member Wachtel said that it was a good general overview. Chair Butler said it was a good start and to bring it back to the Board.

Website Discussion

Mr. Berto said we had a web designer working on the project and that we were attempting to establish a domain name. Member Wachtel said that he had checked the web and couldn't find any info on RBRA. Mr. Price said he envisioned the start-up site having a section on rules and regulations, links to other harbors, and a electronic version of the RBMA map that was put together a few years ago.

Items from the Public not on Agenda

None

Board Member Matters

Member Albritton said that the City Council had the RBRA dues in their upcoming budget discussion and that it was looking promising. He also said the Imagine Sausalito process had shrunk down to a 13 member action committee. Member McGlashan asked what the Sausalito reaction to the Mooring Field had been and Member Albritton

responded that they were still in a wait-and-see stance - that it would be all about size. He felt that the plan would have support of the business visioning committee as long as it enlivened boater business along the waterfront. Member McGlashan responded that the Mooring Plan was not an obvious solution and that good leadership would be needed to make it succeed. He also said that BCDC should enforce their own rules if they cannot approve the Plan. Member Wachtel asked if the plan was for anchor-outs only. Member Albritton noted that in Lake Tahoe, businesses with public moorings get more business.

Items from Staff

None

The meeting was adjourned at 7:05 PM.

The next meeting is scheduled for August 21, 2008, at the Sausalito City Hall Council Chambers at 5:30 PM.

Submitted by Bill Price

PATRICK K. FAULKNER
COUNTY COUNSEL

JACK F. GOVI
ASSISTANT COUNTY COUNSEL

DOROTHY R. JONES
CHIEF DEPUTY

COUNTY COUNSEL OF MARIN COUNTY

3501 Civic Center Drive, Suite 275
San Rafael, California 94903-5222

(415) 499-6117

FAX (415) 499-3796
TDD (415) 499-6172

MARI-ANN G. RIVERS
RENEE GIACOMINI BREWER
DAVID L. ZALTSMAN
MICHELE KENO
NANCY STUART GRISHAM
JENNIFER M. W. VUILLERMET
PATRICK M. K. RICHARDSON
THOMAS F. LYONS
STEPHEN R. RAAB
STEVEN M. PERL
SHEILA SHAH LICHTBLAU
EDWARD J. KIERNAN
JESSICA F. MILLS
DEPUTIES
JEANINE MICHAELS
ADMINISTRATIVE ASSISTANT

February 8, 2008

Mr. James S. Robertson
27 West Shore Road
Belvedere, CA 94920

Re: Your February 6, 2008 e-mail to Supervisor McGlashan

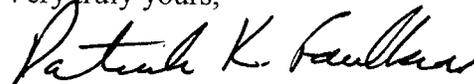
Dear Mr. Robertson:

This office has been asked to respond to your recent email regarding liability for break away boats in Richardson Bay. As you were informed by letter from this office in 2006, the County of Marin has neither the legal duty nor practical ability to prevent "such incidents from occurring" and consequently incurs no liability for damage caused by private vessels. Governmental entities are not the insurers for third party conduct, and have no statutory duty to protect private property from damage caused by private "break away" vessels.

Notwithstanding the lack of a legal duty to establish such, the RBRA, in response to community concern, worked to develop both a rapid response program in cooperation with Belvedere and, on a longer term effort, to develop a mooring field in the Bay. However, the development of these discretionary programs does not insure that private vessels will not "break away." The legal responsibility for damage caused by a failure to prevent a "break away" falls upon the owner of the private vessel.

While your letter refers to the opinions of several attorneys, your recitation of their opinions left out one crucial factor. A public entity is only liable for a dangerous condition of public property owned or maintained by that public entity. Neither the County of Marin nor the RBRA owns or maintains Richardson Bay. The fact that a geographical area is within the jurisdiction of a public entity does not make it the "owner" for liability purposes.

Very truly yours,



Patrick K. Faulkner
County Counsel

cc: Charles McGlashan
Ben Berto

RICHARDSON'S BAY REGIONAL AGENCY

HARBOR ADMINISTRATOR'S REPORT

August 14, 2008

WORKING RELATIONSHIPS

- **Dept. of Boating and Waterways** – 1) The 2009 AWAFF Grant is being held up in the State budget impasse. The Grant Coordinator has notified us that we will be allocated a lowered amount due to increasing demand on the grant program from other agencies. We have been promised \$96K from the DBW, rather than the original \$121K. This amount is not expected to impact the program since we now have a reduced time window in which to expend the funds. 2) Supplemental 2008 funding from the Marin Co. Sheriff's grant has been fully reimbursed.
- **US Coast Guard** – A joint exercise is taking place on August 22, 2008. Open water rescue (with live swimmers) and fire drills will be the main focus, with participants from US Coast Guard, Marin Co. Fire, Marin Co. Sheriff, Sausalito Police Department CHP, and National Parks.
- **Corps of Engineers** – 1) Beginning the process of renewing the RBRA license to use the base yard in Sausalito for another 5 – 10 years. 2) Assisted the Corps in investigating and tracking down a rogue boat disposal contractor. 3) Annual yard clean-up in process.

DEBRIS REMOVAL

- Disposed of 4 vessels and a large piece of dock. Two boats are currently impounded. One vessel was taken off the anchorage and relocated to a marina in a negotiated action.

WATER QUALITY

- Attended the California Clean Marina working group. Intend to present Clean Marina Certification program to local marinas as part of the TMDL plan implementation.
- Water quality tests at Schoonmaker Beach have been conducted since April 1 by Marin Co. Environmental Health Department and results have been below the proposed shellfish TMDL's, with the exception of one day in July. However, levels were low enough to allow water recreation.

OTHER

- Hauling out both vessels for annual bottom paint, engine service, and scheduled maintenance. Sausalito PD will split expenses for the patrol vessel and DBW will pay for all expenses related to the honey barge.
- AB 1950, the Surrendered Vessel bill, came off the appropriations suspense file yesterday and is headed to the Senate Floor. Once that is done, it goes to the Governor for signature.

RBRA BOAT DISPOSAL LOG

Date	Name	Description	Length	Location	Condition	Cost
5/31/2008	Trojan 27	wood powerboat	27'	Daymarker #6	sunk	\$2,140.00
	Tiger Lily	wood houseboat	40'	Dunphy Park	abandoned	\$851.56
	Preshrunk	F/G sailboat	28'	T.I (Corps assist)	beached	\$319.68
6/9/2008	Markente IV	F/G powerboat	28'	Bay Model dock	abandoned/lien	\$4,200.00
6/21/2008	Lagniappe	wood powerboat	27'	Fort Baker	abandoned	\$897.14
	Calypso	F/G sailboat	25'	Waldo Point	abandoned	\$319.68
	Anais	wood sailboat	30'	Fuel dock channel	abandoned	\$0.01
5/30/2008	Ruby II	wood powerboat	42'	Turney Street	abandoned	\$8,000.00
6/26/2008	Lady Irma	wood powerboat	40'	Daymarker #4	abandoned	\$5,500.00
8/1/2008	Marco Polo	ferro sailboat hull	55'	Daymarker #4	abandoned	\$8,000.00
						\$30,228.07

MAY 2008 BALANCE SHEET

VENDORS	SERVICES	REVENUES	EXPENDITURES
PARKER DIVING SERVICE	Raise and tow My Way		5,500.00
BAY CITIES REFUSE	Debris box rental		1,512.00
Cash on Hand at Department	Tow fees - Kauai	-80.00	
HERTZ EQUIPMENT	backhoe rental		622.18
COUNTY OF MARIN-TAX COLLECTOR	County Counsel fees 10 - 12/07		1,050.00
BAY CITIES REFUSE	Debris box rental		764.95
Cash on Hand at Department	mooring rental - Roberts	-150.00	
US BANK GOVERNMENT SERVICES - ACH	ATT - internet		69.39
US BANK GOVERNMENT SERVICES - ACH	Earthlink - internet		5.90
US BANK GOVERNMENT SERVICES - ACH	Crew lunch -		26.03
US BANK GOVERNMENT SERVICES - ACH	Parking - Water Board Oakland		20.00
US BANK GOVERNMENT SERVICES - ACH	Kinko's - Overflight maps		96.34
US BANK GOVERNMENT SERVICES - ACH	USPS		5.38
US BANK GOVERNMENT SERVICES - ACH	Brandon Tire - spare purchase		50.00
US BANK GOVERNMENT SERVICES - ACH	Chevron - fuel		100.70
US BANK GOVERNMENT SERVICES - ACH	Svendsons - hatch cover		10.11
DAVE'S DIVING SERVICE	Rescue Shiflett vessel		175.00
DAVE'S DIVING SERVICE	refloat and tow Trojan 27		1,645.00
ICB ASSOCIATES LLC	Rent - Office Space		420.00
SCHOONMAKER POINT MARINA	Rent - Slip rental		147.50
SCHOONMAKER POINT MARINA	Rent - Slip rental		275.00
LIBERTY SHIP WAY	Rent - Dry storage		240.00
BUTLER, MATT	Dispose of Markente IV		3,800.00
DIEGO TRUCK REPAIR INC	Tow vessel up ramp		250.00
FLESHMAN, TIMOTHY	Day labor		200.00
MORTIMER, RICHARD E.	MT Head repairs		20.00
BAY CITIES REFUSE	Debris box rental		1,342.00
HERTZ EQUIPMENT	backhoe rental		401.56
AT&T MOBILITY	Cell phone - MAY		75.15
Cash on Hand at Department	mooring rental - Roberts	-200.00	
Cash on Hand at Department	mooring rental - Bordelon	-150.00	
Cash on Hand at Department	mooring rental - Borquin	-300.00	
PRICE, WILLIAM G	parking RWCB; food for wkshp mtg		22.55
Cash on Hand at Department	mooring rental - Kelley	-150.00	
ONE TIME VENDOR - CDA	KEKO pumps - Waste Aweigh pump		747.00
Cash on Hand at Department	Reimburse debris box fees	-372.00	
BAY CITIES REFUSE	Debris box rental		385.00
BAY CITIES REFUSE	Debris box rental		350.00
Goods Receipt/Invoice Receipt Clearing	Shute consultant		1,275.25
MAHER, JOHN W	Two year audit 2006 - 2007		10,850.00
HERTZ EQUIPMENT	backhoe rental		512.40
US BANK GOVERNMENT SERVICES - ACH	ATT - internet		72.93
US BANK GOVERNMENT SERVICES - ACH	Earthlink - internet		5.90
AT&T MOBILITY	Cell phone - JUNE		67.76
US BANK GOVERNMENT SERVICES - ACH	food for wkshp mtg		8.19
US BANK GOVERNMENT SERVICES - ACH	food for wkshp mtg		16.00
US BANK GOVERNMENT SERVICES - ACH	Crew lunch -		17.01
US BANK GOVERNMENT SERVICES - ACH	Fed Ex		11.94
US BANK GOVERNMENT SERVICES - ACH	USPS		4.91
US BANK GOVERNMENT SERVICES - ACH	Earthlink - internet		5.06
US BANK GOVERNMENT SERVICES - ACH	Goodman's tools		17.41
US BANK GOVERNMENT SERVICES - ACH	Chevron - fuel		113.45
Rev fr Use of Mny Prop - Int On Pooled Invstmnt	4th quarter interest on Pooled Invst	-354.09	
		-\$1,756.09	\$33,306.95

RICHARDSON'S BAY REGIONAL AGENCY

STAFF REPORT

August 21, 2008

TO: RBRA Board

FROM: Ben Berto, RBRA Clerk

SUBJECT: Basin Plan Amendment

Board members:

At their July 9, 2008 meeting, the State Regional Water Quality Control Board adopted a Basin Plan Amendment (BPA) that established a Total Maximum Daily Load (TMDL) for Richardson's Bay (see attached RWQCB staff report and adopted BPA).¹ RWQCB's adoption of the BPA TMDL has been discussed and anticipated at previous RBRA meetings (for example, a letter to the RWQCB was approved by the RBRA Board at their April hearing).

Also as anticipated, the BPA TMDL envisions potential new roles for the RBRA, roles which as proposed would substantially expand what the RBRA has done in the past. For example, RBRA is listed along with the County of Marin and local cities as being responsible for the following:

1. Submit to the Executive Officer for approval a plan and schedule for 1) evaluating adequacy and performance of sewage collection systems (onboard sewage systems, pumps, sewer lines, etc.) for all houseboats in Richardson Bay, 2) biennial evaluation of sewage collection system operation and maintenance of all houseboats once they have been repaired/upgraded such that they do not discharge any sewage into the Bay.
2. Conduct evaluation per submitted plan.
3. Report progress on implementation of the plan to the Water Board.

RBRA, the County, and local cities have also been charged with the same tasks for vessels (in addition to the houseboats) in Richardson's Bay.

RBRA Staff has met with the County Environmental Health Services to preliminarily discuss our respective roles. Staff made it clear that RBRA has never been in the houseboat sewage evaluation business, nor do we have staff or anticipate ever having

¹ Note: In the interests of brevity, the full 90-page staff report is only being included in the RBRA Board packets. The staff report may be viewed or downloaded at http://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/tmdls/richardsonbaypathogens.shtml.

staff to perform said duties. EHS acknowledged that they had not inspected houseboat or vessel sewerage systems in the past either, but that they have the technical capability (if perhaps not the staffing) to perform such a role.

There are hundreds of houseboats and approximately 2,500 vessels within the confines of Richardson's Bay. Fortunately, all but 126 or so anchored-out vessels are berthed at marinas. It would be a daunting task to inspect thousands of vessels. Staff is hopeful that the Plan will be able to concentrate on houseboats and those vessels that actually generate sewage (i.e., live-aboard vessels). A local plan response is required in the TMDL by July, 2009. To assist in forthcoming discussions with local entities (including the County, Sausalito, and Marina operators) on our respective roles, Staff is requesting the following direction from the Board:

- 1) Should RBRA Staff take on the task of biennially (once every two years) inspecting the sewage collection systems of live-aboard anchorouts (a few dozen vessels), and potentially inspecting whatever of the 126 or so anchor-out vessels that have wastewater collection systems?
- 2) Should every live-aboard anchorout be required to have a Coast Guard-approved waste collection system? This could involve developing a new regulation.
- 3) Should the RBRA pursue including in the local plan a provision that every live-aboard anchorout be required to contract with Waste Aweigh to dispose of their waste?
- 4) Should Staff negotiations with other local entities include the premise that, outside the potential RBRA role identified in item 1) above, RBRA should endeavor to confine its TMDL role concerning houseboats and marina vessels?

Concerning a further TMDL element, the Board will recall that it has increased its FY2008-2009 budget by \$3,000 for water quality testing, in anticipation of the additional Fecal coliform testing required for the TMDL. As listed in the Monitoring and Evaluation portion of the TMDL staff report, RBRA Staff will attempt to partner with the Water Board and MCSTOPPP in this. Given the State's recurring (and current) financial straits, MCSTOPPP may be a more reliable source for funding assistance. RBRA will discuss providing on our part the vessel and conducting the actual field sampling (which the Harbor Administrator currently performs for the dry season tests), while MCSTOPPP provides funding support.

The Harbor Administrator intends to advance the Clean Marina agenda with Marina operators

Staff will inform the Board with periodic progress reports on the tasks and responsibilities involved with gearing up for TMDL local plan development and implementation. It may be helpful at some point to secure the assistance of Board members from the County and Sausalito to facilitate reaching conclusions in areas directly involving their respective jurisdictions.

Adopted Basin Plan Amendment

Richardson Bay Pathogens Total Maximum Daily Load (TMDL)

The following sections establish the TMDL for pathogens in Richardson Bay. The numeric targets, load allocations, and implementation plan are designed to support and protect the Bay's designated beneficial uses, water contact recreation and shellfish harvesting. The TMDL includes actions for adaptive implementation to evaluate the effectiveness of implementation actions, monitor progress toward targets, and review the scientific understanding pertaining to pathogens, which may result in modifying the TMDL in the future.

Problem Statement

Richardson Bay is impaired by pathogens. Monitoring results indicate that the Bay exceeds bacteria water quality objectives for shellfish harvesting (e.g., clam, mussel, and oyster harvesting), and water contact recreation (swimming, fishing); Table 3-1). The presence of pathogens is inferred from high concentrations of fecal coliform bacteria, a commonly used indicator of human pathogenic organisms. Therefore, the beneficial uses of shellfish harvesting and recreational water contact are not fully supported.

Sources

Pathogen sources are identified based on elevated coliform bacteria (pathogen indicator) levels downstream or in the vicinity of identified land uses or facilities and from documentation of inadequately treated human waste discharges. If not properly managed, the following source categories have the potential to discharge pathogens to Richardson Bay: sanitary sewer systems, stormwater runoff, houseboats, and vessels.

- High coliform levels detected downstream of storm drains, and the increase in the number of wet season exceedances as compared to the number of dry season exceedances, point to stormwater runoff as a potential pathogen source.
- Documentation of sanitary sewer overflows in Richardson Bay area municipalities suggests that sanitary sewer systems are a potential source of pathogens to the Bay.
- Consistently high coliform levels in houseboat and vessel marinas indicate that houseboat and vessel marinas' failing sewage collection systems are potential sources of pathogens.

Bacteria levels are low at monitoring sites that contain wildlife but are minimally impacted by human activities. This suggests that wildlife may not be a significant, widespread potential source of pathogens in Richardson Bay. Wildlife may be a significant source on an intermittent, localized basis.

Numeric Targets

The numeric targets (desired future long-term conditions) proposed for pathogen indicators in Richardson Bay are presented in Table 7-1.

Table 7-1. Numeric Targets for Richardson Bay^a	
Beneficial Use	Numeric Target
Shellfish Harvesting	Median fecal coliform density ^b < 14 (MPN ^c /100 mL) 90 th percentile fecal coliform density < 43 (MPN/100 mL)
Water Contact Recreation	Geometric mean fecal coliform density < 200 90 th percentile fecal coliform density < 400 Geometric mean Enterococci density < 35 CFU ^d /100 mL 90 th percentile Enterococci density < 104 CFU/100 mL
<p>a. Based on a minimum of five consecutive samples equally spaced over a 30-day period</p> <p>b. "Density" refers to the number of bacteria in a given volume of water (U.S. EPA, 1986, 2002, 2003). The term is analogous to "concentration," which refers to the mass of chemical pollutant in a given volume of water. "Bacterial density" and "bacterial concentration" are sometimes used interchangeably.</p> <p>c. Most Probable Number (MPN) is a statistical representation of the standard coliform test results.</p> <p>d. CFU stands for colony forming unit (e.g., as in number of bacterial colonies)</p>	

The bacterial density targets are based on the Basin Plan's shellfish harvesting and water contact recreation water quality objectives for fecal coliform and on U.S. EPA's recommended Enterococci criteria for water contact recreation in salt water.

Total Maximum Daily Load

Table 7-2 shows Richardson Bay's density-based pathogens TMDL, expressed as fecal coliform bacteria concentrations.

Table 7-2. Total maximum daily load for pathogen indicators (fecal coliforms) for Richardson Bay	
Indicator Parameter	TMDL
Fecal coliform	Median ^a < 14 MPN/100 mL 90 th Percentile ^b < 43 MPN/100 mL
<p>a. Based on a minimum five consecutive samples equally spaced over a 30-day period.</p> <p>b. No more than 10% of total samples during any 30-day period may exceed this number.</p>	

Load Allocations

Density-based fecal coliform allocations for each potential pathogen source category in Richardson Bay are presented in Table 7-3. Each discharger in the Richardson Bay

watershed is responsible for meeting its source category allocation. All potential dischargers are also responsible for complying with applicable waste discharge requirements, or waste discharge prohibitions (Table 4-1, Prohibitions 5, 15, and 18).

All discharges of raw or inadequately treated human waste, including sewage from vessels, are prohibited. All sources of untreated or inadequately treated human waste have an allocation of zero.

Table 7-3. Density-Based Pollutant Wasteload and Load Allocations^a for Richardson Bay		
Categorical Pollutant Source	Wasteload and Load Allocations Fecal Coliform (MPN/100 mL)	
	For Direct Discharges to the Bay	
	Median^b	90th Percentile^c
<i>Stormwater Runoff^d</i>	<14	< 43
<i>Wildlife^e</i>	<14	< 43
<i>Sanitary Sewer Systems</i>	0	0
<i>Houseboats</i>	0	0
<i>Vessels (Recreational, Live-aboard, Anchor-out Boats)</i>	0	0

a. These allocations are applicable year-round. b. Based on a minimum of five consecutive samples equally spaced over a 30-day period. c. No more than 10% of total samples during any 30-day period may exceed this number. d. Wasteload allocation for discharges from municipal separate storm sewer systems (NPDES Permit Nos. CAS000004 and CAS000003). e. Wildlife is not believed to be a readily controllable source of pathogens; therefore, no management measures are required.

Implementation Plan

The Richardson Bay Pathogens TMDL Implementation Plan builds upon previous and ongoing successful efforts to reduce potential pathogen loads in Richardson Bay and its tributaries. The plan requires actions consistent with the California Water Code (CWC 13000 et seq.), the state’s Nonpoint Source Pollution Control Program Plan (CWC Section 13369), the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program, and human waste discharge prohibitions (Table 4-1, Prohibitions 5, 15, and 18).

Table 7-4 lists the required implementation measures for the source categories listed in Table 7-3. These measures include evaluation of operating practices, identification of comprehensive, site-specific pathogens control measures and an associated

implementation schedule, and submittal of progress reports to the Water Board documenting actions taken.

Table 7-4. Trackable implementation measures for the Richardson Bay pathogens TMDL

Source Category	Implementing Party	Action	Completion Dates
Sanitary Sewer Systems	Marin County Sanitary District No. 5, Sewerage Agency of Southern Marin, Tamalpais Community Services District, City of Mill Valley, Homestead Valley Sanitary District, Alto Sanitary District, Almonte Sanitary District, City of Sausalito, Sausalito Marin City Sanitary District, Richardson Bay Sanitary District	1. Comply with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.	As specified in applicable WDR permit
Stormwater Runoff	Marin County, City of Sausalito, City of Mill Valley, City of Tiburon, City of Belvedere, Caltrans	1. Implement applicable stormwater management plan. 2. Update/amend applicable stormwater management plans, as appropriate, to include specific measures to reduce pathogen loading, including additional education and outreach efforts, and installation of additional pet waste receptacles. 3. Report progress on implementation of pathogen reduction measures to Water Board.	As specified in approved stormwater management plan and in applicable NPDES permit

Table 7-4. Trackable implementation measures for the Richardson Bay pathogens TMDL

Source Category	Implementing Party	Action	Completion Dates
Houseboats	RBRA; Marin County; local cities	1. Submit to the Executive Officer for approval a plan and schedule for 1) evaluating adequacy and performance of sewage collection systems (onboard sewage systems, pumps, sewer lines, etc.) for all houseboats in Richardson Bay, 2) biennial evaluation of sewage collection system operation and maintenance for all houseboats once they have been repaired/upgraded such that they do not discharge any sewage into the Bay.	July 2009
		2. Conduct evaluation per submitted plan.	July 2010
		3. Report progress on implementation of the plan to Water Board.	Annually
	Houseboat marina owners	1. Submit to the Executive Officer for approval a plan and schedule for 1) repairing/upgrading identified substandard/malfunctioning sewage collection systems (onboard sewage systems, pumps, sewer lines, etc.) such that they do not discharge any sewage into the Bay, 2) long-term operation and maintenance of the systems.	July 2011
		2. Report progress on implementation of the plan to Water Board.	Annually
	Houseboat owners, houseboat marina owners	1. Repair/Upgrade identified substandard/malfunctioning sewage collection systems (onboard sewage systems, pumps, sewer lines, etc.) such that they do not discharge any sewage into the Bay.	July 2013
		2. Operate and maintain sewage collection systems such that they do not discharge any sewage into the Bay.	Ongoing

Source Category	Implementing Party	Action	Completion Dates
Vessels	RBRA; Marin County; local cities	1. Submit to the Executive Officer for approval a plan and implementation schedule for 1) evaluating adequacy and performance of sewage collection systems (sewage dump stations, sewage pumpout stations, onboard sewage systems, sewer lines, etc.) for all vessel marinas and vessels with toilet facilities in Richardson Bay, 2) biennial evaluation of sewage collection system operation and maintenance for all vessel marinas and vessels once they have been repaired/upgraded such that they do not discharge any sewage into the Bay.	July 2009
		2. Conduct evaluation per submitted plan.	July 2010
		3. Report progress on implementation of the plan to Water Board.	Annually
	Vessel marina owners	1. Submit to the Executive Officer for approval a plan and schedule for 1) installing, as needed, an adequate number of sewage pumpout and dump stations. If no new sewage pumpout and dump stations are needed, provide an explanation as why they are not needed, 2) repairing/upgrading identified leaky/malfunctioning sewage collection systems (sewage dump stations, sewage pumpout stations, onboard sewage systems, sewer lines, etc.) such that they do not discharge any sewage into the Bay, 3) long-term operation and maintenance of the systems such that they do not discharge any sewage into the Bay.	July 2011
		2. Report progress on implementation of the plan to Water Board.	Annually
	Vessel owners, vessel marina owners	1. Repair/upgrade identified leaky/malfunctioning sewage collection systems (sewage dump stations, sewage pumpout stations, onboard sewage systems, sewer lines, etc.) such that they do not discharge any sewage into the Bay.	July 2013
		2. Operate and maintain sewage collection systems such that they do not discharge any sewage into the Bay.	Ongoing
		3. Enroll in RBRA's mobile sewage collection and disposal service for all live-aboards (both anchor-outs and marina-berthed vessels).	July 2010

Regulatory Framework

The state’s Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program requires that current and proposed nonpoint source discharges be regulated under waste discharge requirements, waivers of waste discharge requirements, Basin Plan discharge prohibitions, or some combination of these tools. Municipal and highway stormwater runoffs are regulated under NPDES permits. Table 7-5 describes the regulatory mechanism by which dischargers in each source category will be regulated.

Table 7-5. Regulatory Framework	
Source Category	Regulatory Tool
Sanitary Sewer Systems	General WDR permit
Stormwater Runoff	NPDES permit
Houseboats	Existing prohibition of human waste discharge (Table 4-1, Prohibitions 5 and 15)
Vessels	Existing prohibition of human waste discharge (Table 4-1, Prohibitions 5, 15, and 18)

Ongoing Water Quality Monitoring in Richardson Bay

Water quality monitoring will be conducted to assess water quality improvements and obtain additional information for further refinement of the TMDL. The main objectives of the ongoing monitoring program are to:

- Assess attainment of TMDL targets
- Evaluate spatial and temporal water quality trends in the Bay
- Obtain additional information about significant potential pathogen source areas
- Collect sufficient data to prioritize implementation efforts and assess the effectiveness of source control actions

All water quality monitoring (including Quality Assurance and Quality Control procedures) will be performed pursuant to the State Water Board’s Quality Assurance Management Plan for the Surface Water Ambient Monitoring Program.

Adaptive Implementation

In 2013, the Water Board will evaluate monitoring results and assess progress toward attaining TMDL targets (Table 7-1) and load allocations (Table 7-3). The Water Board will also evaluate compliance with the trackable implementation measures specified in Table 7-4, as documented by submitted progress reports.

If evaluation and monitoring show that source control actions have been fully implemented throughout the watershed, but the TMDL targets (water quality objectives) are not attained, the Water Board may re-evaluate the attainability/applicability of designated water quality objectives.

The Water Board will review the Richardson Bay Pathogens TMDL and evaluate new and relevant information from monitoring, special studies, and scientific literature. At a minimum, these reviews will aim to find answers to the following questions. Additional questions may be developed in collaboration with stakeholders.

1. Is Richardson Bay progressing toward TMDL targets? If progress is unclear, how can monitoring efforts be modified to detect trends? If there has not been adequate progress, how might the implementation actions be modified?
2. What are the pollutant contributions for the various source categories? How have these contributions changed over time? How do they vary seasonally? How might source control measures be modified to improve load reduction? If the answers to these questions are not clear, how can monitoring efforts be modified to answer these questions?
3. Is there new, reliable, and widely accepted scientific information that suggests modifications to targets, or implementation actions? If so, how should the TMDL be modified?

Modifications to the targets or implementation plan will be incorporated into the Basin Plan via an amendment process.