

San Francisco Bay, Lower

HYDRO UNIT: 20410010
 TOTAL SIZE: 79293.27
 UNIT: Acres

WATER BODY ID: CAB2041001019980925131322
 USGS CATALOGING UNIT: 18050004

CWA LISTINGS:

303(d): Y
 319: 0 Acres

ASSESSMENT TYPE: m
 ASSESSMENT CYCLE: 98
 MONITORED FOR TOXICS:

COUNTY 1: 06081 SAN MATEO CO
 COUNTY 2: 06075 SAN FRANCISCO CO
 COUNTY 3: 06001 ALAMEDA CO

WATER BODY DESCRIPTION: 02/11/1999-

BENEFICIAL USE SUPPORT

YEAR	CODE	EPA BENEFICIAL USES	FULLY SUPPORTING	THREATENED	PARTIALLY SUPPORTING	NOT SUPPORTING	NOT ASSESSED	NOT APPLICABLE
98	01	OVERALL USE SUPPORT	0	0	79293.3	0	0	0
98	20	AQUATIC LIFE SUPPORT	0	0	79293.3	0	0	0
98	21	FISH CONSUMPTION	0	0	79293.3	0	0	0
98	23	SHELLFISHING	0	0	79293.3	0	0	0
98	42	SWIMMABLE	79293.3	0	0	0	0	0
98	44	SECONDARY CONTACT REC	79293.3	0	0	0	0	0
98	50	DRINKING WATER SUPPLY	0	0	0	0	79293.3	0
98	72	AGRICULTURE	0	0	0	0	79293.3	0
CA BENEFICIAL USES								
98	74	CULTURAL/CEREMONIAL	0	0	0	0	79293.3	0
98	AG	Agricultural Supply	0	0	0	0	79293.3	0
98	AO	Aquaculture	0	0	0	0	79293.3	0
98	BI	Preserva.of Bio.Hab.of Spec.Signif.	0	0	0	0	79293.3	0
98	CM	Commercial and Sport Fishing (CA)	0	0	79293.3	0	0	0
98	CO	Cold Freshwater Habitat	0	0	0	0	79293.3	0
98	ES	Estuarine Habitat	0	0	79293.3	0	0	0
98	FL	Flood Peak Attenuation/Flood Water St	0	0	0	0	79293.3	0
98	FR	Freshwater Replenishment	0	0	0	0	79293.3	0
98	GW	Groundwater Recharge	0	0	0	0	79293.3	0
98	IN	Industrial Service Supply	79293.3	0	0	0	0	0
98	MA	Marine Habitat	0	0	0	0	79293.3	0
98	MI	Fish Migration	0	0	79293.3	0	0	0
98	MU	Municipal & Domestic	0	0	0	0	79293.3	0
98	NA	Navigation	0	0	0	0	79293.3	0
98	PO	Hydroelectric Power Generation	0	0	0	0	79293.3	0
98	PR	Industrial Process Supply	0	0	0	0	79293.3	0
98	R1	Water Contact Recreation	79293.3	0	0	0	0	0
98	R2	Non-Contact Recreation	79293.3	0	0	0	0	0
98	RA	Rare & Endangered Species	0	0	79293.3	0	0	0
98	SA	Saline Water Habitat	0	0	0	0	79293.3	0
98	SH	Shellfish Harvesting	0	0	79293.3	0	0	0
98	SP	Fish Spawning	0	0	0	0	79293.3	0
98	WA	Warm Freshwater Habitat	0	0	0	0	79293.3	0
98	WE	Wetland Habitat	0	0	0	0	79293.3	0
98	WI	Wildlife Habitat	0	0	79293.3	0	0	0
98	WO	Water Quality Enhancement	0	0	0	0	79293.3	0

CAUSES (for 305(b))

CODE	CAUSES (for 305(b))	SIZE AFFECTED	MAGNITUDE
0200	Pesticides	79293.3	T
0300	Priority organics	79293.3	M
0500	Metals	79293.3	M

San Francisco Bay, Lower

CODE	SOURCES	SIZE AFFECTED	MAGNITUDE
0100	INDUSTRIAL POINT SOURCES	79293.3	M
0200	MUNICIPAL POINT SOURCES	79293.3	M
1000	AGRICULTURE	79293.3	M
4000	URBAN RUNOFF/STORM SEWERS	79293.3	M
5000	RESOURCE EXTRACTION	79293.3	H
8100	ATMOSPHERIC DEPOSITION	79293.3	M
8600	NATURAL SOURCES	79293.3	M
8910	GROUNDWATER LOADINGS	79293.3	M
9000	SOURCE UNKNOWN	79293.3	S
9100	NONPOINT SOURCE	79293.3	M
9111	Ballast Water	79293.3	M

GENERAL ASSESSMENT COMMENTS

03/15/02-Copper and nickel are considered to threaten water quality of the Bay segments, based on proximity to the regulatory threshold, unfinished investigations in the North Bay, and anti-degradation.

TYPE OF DATA USED FOR ASSESSMENT

CODE DATA TYPE
200 PHYSICAL/CHEMICAL MONITORING

COMMENTS ON DATA FOR THE ASSESSMENT

NA

TMDL POLLUTANTS AND SOURCES

CODE	POLLUTANT/STRESSOR	CODE	SOURCE	SIZE AFFECTED	TMDL PRIORITY	START	END
0560	Mercury	0100	INDUSTRIAL POINT SOURCES	79293.3	H	1998	2002
2600	Exotic Species	9111	Ballast Water	79293.3	H	1998	2006
4090	Chlordane	9100	NONPOINT SOURCE	79293.3	M	2002	2007
4130	DDT	9100	NONPOINT SOURCE	79293.3	M	2002	2007

Current data indicate fish consumption and wildlife consumption impacted uses: health consumption advisory in effect for multiple fish species including striped bass and shark. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources: water quality objective exceedances. Elevated sediment levels and elevated tissue levels.

Disrupt natural benthos; change pollutant availability in food chain; disrupt food availability to native species.

This listing was made by USEPA.

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San Francisco Bay, Lower

4150	Diazinon	9100 NONPOINT SOURCE	79293.3	M	2002	2006
<p>Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.</p>						
4160	Dieldrin	9100 NONPOINT SOURCE	79293.3	M	2002	2007
<p>This listing was made by USEPA.</p>						
4166	Dioxin Compounds	8100 ATMOSPHERIC DEPOSITION	79293.3	L	0000	0000
<p>Start date to be determined.</p>						
4215	Furan Compounds	8100 ATMOSPHERIC DEPOSITION	79293.3	L	0000	0000
<p>The specific compounds are 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6, 7,8,-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF. Start date to be determined.</p>						
8070	PCBs	9105 Unknown Nonpoint Source	79293.3	M	2000	2004
<p>This listing covers non dioxin-like PCBs. Interim health advisory for fish; uncertainty regarding water column concentration data.</p>						
8071	PCBs (dioxin-like)	9105 Unknown Nonpoint Source	79293.3	L	0000	0000
<p>The specific dioxin like compounds are 3,4,4,5-TCB (81), 3,3,3,3-TCB (77), 3,3,4,4,5-PeCB (126), 3,3,4,4,4,4-HxCB (169), 2,3,3,4,4-PeCB (105), 2,3,4,4,5-PeCB (114), 2,3,4,4,5-PeCB (118), 2,3,4,4,5-PeCB (123), 2,3,3,4,4,5-HxCB (156), 2,3,3,4,4,5-HxCB (157), 2,3,4,4,5,5,-HxCB (167), 2,3,3,4,4,5,5-HpCB (189). Start date to be determined.</p>						
<p>Size Affected = Portion of water body affected L = Low M = Medium H = High</p>						

INFORMATION FOR 2002 WATCH LIST

WATER BODY NAME	WATCH LIST POLLUTANT
San Francisco Bay, Lower	Copper Nickel PAHs PBDEs

NONPOINT SOURCE MANAGEMENT MEASURES

NONPOINT SOURCE RELATED PROJECTS (NRPI)

PATH TO STORED DATA FILES

San Francisco Bay, Lower**DATASHEET DEFINITIONS*****Beneficial Use Support: Overall Use**

"Fully Supporting" refers to waters of good quality in the WBS database, excluding the Fully Supporting But Threatened category, which is treated separately. "Fully Supporting" waters support and enhance all designated beneficial uses.

"Threatened" is shortened for "Fully Supporting But Threatened" and refers to those portions of good quality waters in the WBS database which specifically identify at least one beneficial use as threatened and the remaining uses are fully supported.

"Partially Supporting" refers to all intermediate and less severely impaired waters where one or more designated beneficial uses are partially supported and the remaining uses are fully supported or threatened.

"Not Supporting" refers to those water bodies in which one or more beneficial uses are not supported. These are water bodies that cannot reasonable be expected to attain or maintain applicable water quality standards and are considered impaired. A water body is impaired when data indicate that adopted objectives are continually exceeded or that beneficial uses are not protected (e.g., health warnings are in effect). In many cases this determination involves evaluating many sources of data to arrive at a judgement.

"Not

Assessed" refers to water bodies where few or no direct observations are available.

***Beneficial Use Support: Individual Uses**

The use support status for individual uses is determined for entire water bodies or portions of water bodies based on the length or areal extent represented by monitoring data or other evaluation criteria. In many cases, different portions of a water body have a different use support status. In certain cases where information is not available to determine the limits of impaired areas, the entire water body is considered impaired.

****Magnitude**

H = High (Major contribution)- A cause or source that makes a major contribution to impairment if it is the only one responsible for nonsupport of any designated use or it predominates over other causes/sources.

M = Medium (Moderate contribution) - A cause or source that is the only one responsible for partial support of any use, predominates over other causes/sources of partial support, or is one of multiple causes/sources of nonsupport that have a significant impact on designated use attainment.

S = Low (Minor contribution)- A cause or source that is one of multiple causes/sources responsible for nonsupport or partial support and is judged to contribute relatively little to this nonattainment.

T = Threatened - A cause or source that is a threat to a fully supported water body.

Castro Cove (San Pablo Basin)

HYDRO UNIT: 20660014
 TOTAL SIZE: 71.4037
 UNIT: Acres

WATER BODY ID: CAE2066001420020530174802
 USGS CATALOGING UNIT: 18050002

CWA LISTINGS:

303(d): Y

319: 0 Acres

ASSESSMENT TYPE: e

ASSESSMENT CYCLE: 02

MONITORED FOR TOXICS:

COUNTY 1: 06013

COUNTY 2: NA

COUNTY 3: NA

CONTRA COSTA CO

NA

NA

WATER BODY DESCRIPTION: 05/30/2002- Castro Cove is located in San Pablo Basin

BENEFICIAL USE SUPPORT

YEAR	CODE	EPA BENEFICIAL USES	FULLY SUPPORTING	THREATENED	PARTIALLY SUPPORTING	NOT SUPPORTING	NOT ASSESSED	NOT APPLICABLE
02	01	OVERALL USE SUPPORT	0	71.4037	0	0	0	0
02	20	AQUATIC LIFE SUPPORT	0	0	0	0	71.4037	0
02	21	FISH CONSUMPTION	0	0	0	0	71.4037	0
02	23	SHELLFISHING	0	0	0	0	0	71.4037
02	42	SWIMMABLE	0	0	0	0	71.4037	0
02	44	SECONDARY CONTACT REC	0	0	0	0	71.4037	0
02	50	DRINKING WATER SUPPLY	0	0	0	0	71.4037	0
02	72	AGRICULTURE	0	0	0	0	0	71.4037
CA BENEFICIAL USES								
02	74	CULTURAL/CEREMONIAL	0	0	0	0	0	71.4037
02	AG	Agricultural Supply	0	0	0	0	0	71.4037
02	AO	Aquaculture	0	0	0	0	71.4037	0
02	BI	Preserva.of Bio.Hab.of Spec.Signif.	0	0	0	0	0	71.4037
02	CM	Commercial and Sport Fishing (CA)	0	0	0	0	0	71.4037
02	CO	Cold Freshwater Habitat	0	0	0	0	71.4037	0
02	ES	Estuarine Habitat	0	0	0	0	71.4037	0
02	FL	Flood Peak Attenuation/Flood Water St	0	0	0	0	0	71.4037
02	FR	Freshwater Replenishment	0	0	0	0	0	71.4037
02	GW	Groundwater Recharge	0	0	0	0	0	71.4037
02	IN	Industrial Service Supply	0	0	0	0	0	71.4037
02	MA	Marine Habitat	0	0	0	0	0	71.4037
02	MI	Fish Migration	0	0	0	0	71.4037	0
02	MU	Municipal & Domestic	0	0	0	0	71.4037	0
02	NA	Navigation	0	0	0	0	0	71.4037
02	PO	Hydroelectric Power Generation	0	0	0	0	0	71.4037
02	PR	Industrial Process Supply	0	0	0	0	0	71.4037
02	R1	Water Contact Recreation	0	0	0	0	71.4037	0
02	R2	Non-Contact Recreation	0	0	0	0	71.4037	0
02	RA	Rare & Endangered Species	0	0	0	0	0	71.4037
02	SA	Saline Water Habitat	0	0	0	0	0	71.4037
02	SH	Shellfish Harvesting	0	0	0	0	0	71.4037
02	SP	Fish Spawning	0	0	0	0	71.4037	0
02	WA	Warm Freshwater Habitat	0	0	0	0	71.4037	0
02	WE	Wetland Habitat	0	0	0	0	0	71.4037
02	WI	Wildlife Habitat	0	0	0	0	71.4037	0
02	WO	Water Quality Enhancement	0	0	0	0	0	71.4037

CAUSES (for 305(b))

CODE	CAUSES (for 305(b))	SIZE AFFECTED	MAGNITUDE
0100	Unknown toxicity	71.4037	T

Castro Cove (San Pablo Basin)

SOURCES (for 305(b))

CODE	SOURCES	SIZE AFFECTED	MAGNITUDE
9000	SOURCE UNKNOWN	71.4037	T

CAUSES AND SOURCES LINKED

GENERAL ASSESSMENT COMMENTS

05/30/02-

TYPE OF DATA USED FOR ASSESSMENT

CODE	DATA TYPE
980	Unspecified

COMMENTS ON DATA FOR THE ASSESSMENT

TMDL POLLUTANTS AND SOURCES

INFORMATION FOR 2002 WATCH LIST

WATER BODY NAME	WATCH LIST POLLUTANT
Castro Cove (San Pablo Basin)	Toxicity

NONPOINT SOURCE MANAGEMENT MEASURES

NONPOINT SOURCE RELATED PROJECTS (NRPI)

PATH TO STORED DATA FILES

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