

SANTA BARBARA HARBOR  
WATER QUALITY TEST RESULTS  
JULY 2009 THROUGH JUNE 2010

**ATTACHMENT #**  
*page 1 of 2*

Total Coliform MPN/100mls						
Station	July	August	September	October	May	June
SBH #7	74	1,565	86	223	31	52
SBH #8	158	487	122	443	98	31
SBH #9	272	226	74	408	<10	85
SBH #10	161	85	20	197	31	10
SBH #11	305	86	134	422	243	341
SBH #12	86	41	10	275	134	31
SBH #13	<10	<10	10	31	<10	<10
Limit: <10,000 MPN/100mls						

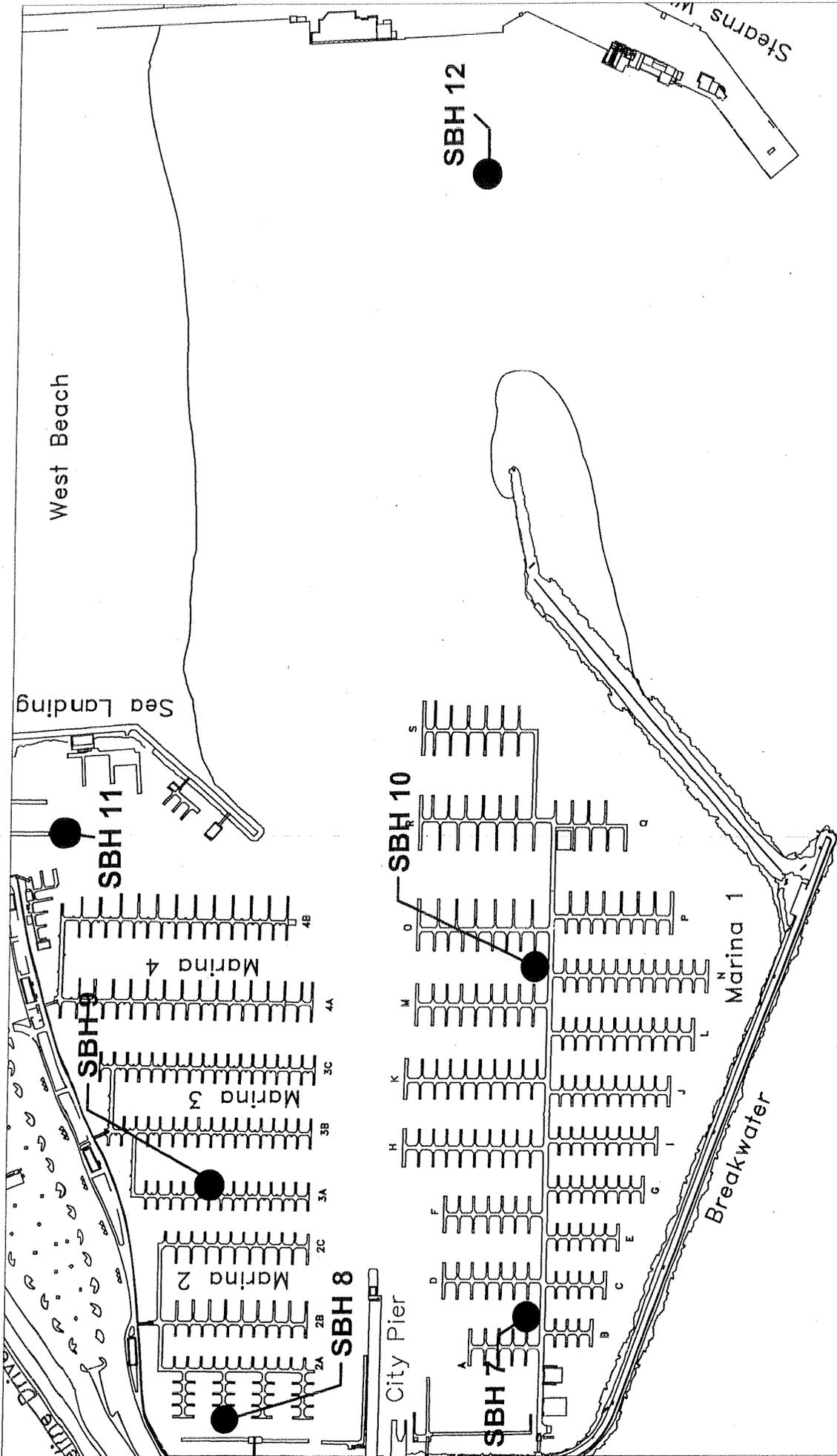
Fecal Coliform MPN/100mls						
Station	July	August	September	October	May	June
SBH #7	31	31	10	20	<10	31
SBH #8	<10	10	10	51	20	<10
SBH #9	10	<10	10	20	<10	<10
SBH #10	31	<10	<10	20	<10	10
SBH #11	122	<10	41	31	86	<10
SBH #12	20	31	10	189	86	20
SBH #13	<10	<10	<10	<10	<10	<10
Limit: < 400 MPN/100mls						

Enterococcus MPN/100mls						
Station	July	August	September	October	May	June
SBH #7	41	<10	<10	10	<10	10
SBH #8	<10	<10	<10	10	10	10
SBH #9	20	<10	31	41	<10	<10
SBH #10	<10	<10	<10	10	10	<10
SBH #11	110	<10	<10	20	<10	10
SBH #12	<10	<10	<10	<10	10	<10
SBH #13	<10	<10	<10	10	<10	<10
Limit: < 104 MPN/100mls						

SANTA BARBARA HARBOR  
WATER QUALITY TEST RESULTS  
JULY 2009 THROUGH JUNE 2010

**ATTACHMENT #1**  
*page 2 of 2*

MBAS MPN/l		
Station	April	June
SBH #7	ND	ND
SBH #8	ND	ND
SBH #9	ND	ND
SBH #10	ND	ND
SBH #11	ND	ND
SBH #12	ND	ND
SBH #13	ND	ND
Limit: < 2 MPN mg/l		



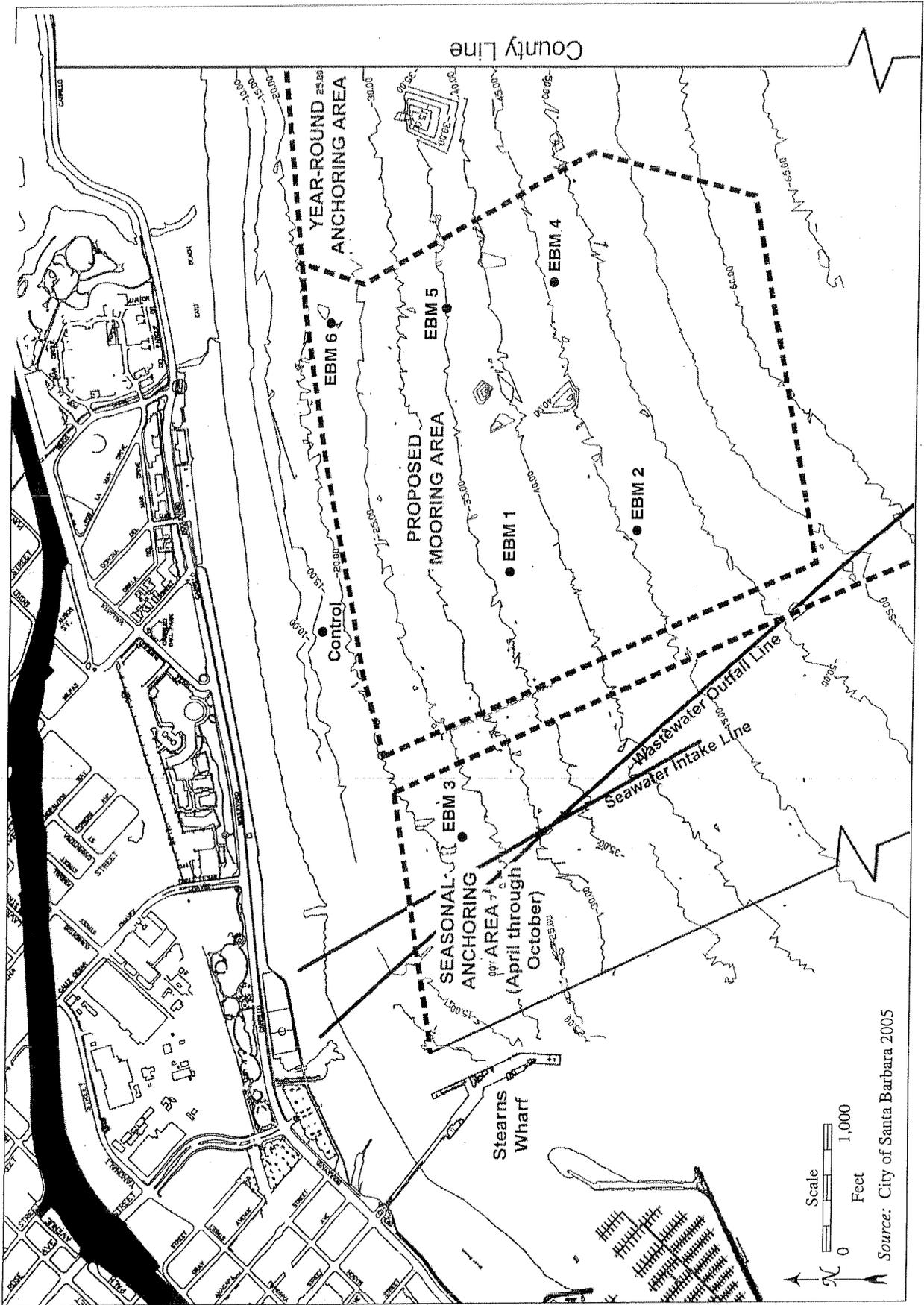
Water Quality Sampling Locations

EAST BEACH MOORING  
 WATER QUALITY TEST RESULTS  
 JULY 2009 THROUGH JUNE 2010

Total Coliform MPN/100ml				
Station	August	October	April	June
EBM #1	<1	<10	<10	<10
EBM #2	<1	20	<10	<10
EBM #3	<1	<10	<10	NA
EBM #4	<1	10	10	10
EBM #5	<1	10	84	84
EBM #6	<1	20	10	10
CONTROL	<1	74	41	41
Limit: < 10,000 MPN/100 ml				

Fecal Coliform MPN/100ml				
Station	August	October	April	June
EBM #1	<1	<10	<10	<10
EBM #2	<1	<10	<10	<10
EBM #3	<1	<10	<10	NA
EBM #4	<1	<10	<10	<10
EBM #5	<1	<10	<10	<10
EBM #6	<1	<10	<10	<10
CONTROL	<1	10	<10	<10
Limit: < 400 MPN/100ml				

Enterococcus MPN/100ml				
Station	August	October	April	June
EBM #1	<1	<10	<10	<10
EBM #2	<1	<10	<10	<10
EBM #3	<1	<10	<10	NA
EBM #4	<1	10	<10	<10
EBM #5	<1	<10	<10	<10
EBM #6	<1	<10	<10	<10
CONTROL	<1	<10	<10	<10
Limit: < 104 MPN/100ml				



Map 1. Proposed Mooring and Anchoring Areas

# Dissolved Oxygen Levels in the Harbor

ATTACHMENT 5

7/22/2009

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	5.74 mg/l	5.12 mg/l
Station #8	Marina 2B300	4.16 mg/l	4.91 mg/l
Station #9	Marina 3A030	4.87 mg/l	4.26 mg/l
Station #10	Marina 1M001	6.05 mg/l	4.77 mg/l
Station #11	West Finger of Launch Ramp	4.50 mg/l	3.91 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	8.05 mg/l	8.21 mg/l
Station #13	Control, 100 yards Offshore	8.33 mg/l	9.29 mg/l

8/26/2009

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	5.89 mg/l	5.33 mg/l
Station #8	Marina 2B300	5.71 mg/l	4.55 mg/l
Station #9	Marina 3A030	6.48 mg/l	6.32 mg/l
Station #10	Marina 1M001	6.14 mg/l	6.18 mg/l
Station #11	West Finger of Launch Ramp	5.16 mg/l	4.61 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	7.79 mg/l	7.02 mg/l
Station #13	Control, 100 yards Offshore	8.60 mg/l	8.08 mg/l

9/17/2009

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	5.23 mg/l	4.27 mg/l
Station #8	Marina 2B300	5.25 mg/l	5.02 mg/l
Station #9	Marina 3A030	5.55 mg/l	5.42 mg/l
Station #10	Marina 1M001	5.18 mg/l	6.11 mg/l
Station #11	West Finger of Launch Ramp	4.31 mg/l	3.90 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	7.05 mg/l	7.43 mg/l
Station #13	Control, 100 yards Offshore	8.03 mg/l	7.95 mg/l

10/28/2009

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	3.69 mg/l	4.56 mg/l
Station #8	Marina 2B300	3.28 mg/l	3.41 mg/l
Station #9	Marina 3A030	3.82 mg/l	4.70 mg/l
Station #10	Marina 1M001	4.22 mg/l	4.70 mg/l
Station #11	West Finger of Launch Ramp	2.65 mg/l	2.55 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	7.11 mg/l	6.16 mg/l
Station #13	Control, 100 yards Offshore	7.63 mg/l	7.80 mg/l

11/17/2009

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	4.37 mg/l	4.36 mg/l
Station #8	Marina 2B300	4.58 mg/l	4.08 mg/l
Station #9	Marina 3A030	4.53 mg/l	4.55 mg/l
Station #10	Marina 1M001	5.07 mg/l	4.82 mg/l
Station #11	West Finger of Launch Ramp	4.22 mg/l	4.34 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	7.05 mg/l	7.22 mg/l
Station #13	Control, 100 yards Offshore	7.82 mg/l	7.82 mg/l

12/16/2009

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	5.13 mg/l	4.96 mg/l
Station #8	Marina 2B300	5.24 mg/l	5.37 mg/l
Station #9	Marina 3A030	5.29 mg/l	5.17 mg/l
Station #10	Marina 1M001	5.46 mg/l	6.21 mg/l
Station #11	West Finger of Launch Ramp	5.33 mg/l	5.24 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	7.25 mg/l	6.96 mg/l
Station #13	Control, 100 yards Offshore	7.76 mg/l	8.04 mg/l

# Dissolved Oxygen Levels in the Harbor ATTACHMENT #5

1/14/2010

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	5.49 mg/l	5.94 mg/l
Station #8	Marina 2B300	4.66 mg/l	4.83 mg/l
Station #9	Marina 3A030	5.25 mg/l	5.17 mg/l
Station #10	Marina 1M001	5.89 mg/l	6.46 mg/l
Station #11	West Finger of Launch Ramp	4.98 mg/l	5.25 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	7.64 mg/l	7.78 mg/l
Station #13	Control, 100 yards Offshore	8.74 mg/l	8.15 mg/l

3/16/2010

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	6.06 mg/l	6.58 mg/l
Station #8	Marina 2B300	5.95 mg/l	5.75 mg/l
Station #9	Marina 3A030	6.22 mg/l	6.05 mg/l
Station #10	Marina 1M001	6.40 mg/l	6.35 mg/l
Station #11	West Finger of Launch Ramp	5.79 mg/l	6.28 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	6.58 mg/l	6.91 mg/l
Station #13	Control, 100 yards Offshore	7.32 mg/l	7.30 mg/l

3/30/2010

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	6.29 mg/l	6.29 mg/l
Station #8	Marina 2B300	5.87 mg/l	5.78 mg/l
Station #9	Marina 3A030	6.10 mg/l	6.23 mg/l
Station #10	Marina 1M001	6.00 mg/l	5.94 mg/l
Station #11	West Finger of Launch Ramp	5.28 mg/l	4.93 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	7.50 mg/l	7.78 mg/l
Station #13	Control, 100 yards Offshore	8.80 mg/l	8.83 mg/l

4/30/2010

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	1.92 mg/l	1.83 mg/l
Station #8	Marina 2B300	2.74 mg/l	2.77 mg/l
Station #9	Marina 3A030	2.94 mg/l	2.83 mg/l
Station #10	Marina 1M001	1.63 mg/l	1.64 mg/l
Station #11	West Finger of Launch Ramp	2.38 mg/l	2.33 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	NA	NA
Station #13	Control, 100 yards Offshore	NA	NA

6/9/2010

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	6.10 mg/l	5.95 mg/l
Station #8	Marina 2B300	5.88 mg/l	5.38 mg/l
Station #9	Marina 3A030	6.18 mg/l	5.93 mg/l
Station #10	Marina 1M001	5.79 mg/l	6.75 mg/l
Station #11	West Finger of Launch Ramp	5.89 mg/l	5.07 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	7.61 mg/l	8.34 mg/l
Station #13	Control, 100 yards Offshore	9.03 mg/l	9.20 mg/l

6/23/2010

		<i>Near Surface DO</i>	<i>Near Bottom DO</i>
Station #7	Marina 1A002	5.18 mg/l	5.49 mg/l
Station #8	Marina 2B300	4.47 mg/l	4.39 mg/l
Station #9	Marina 3A030	5.96 mg/l	5.92 mg/l
Station #10	Marina 1M001	6.01 mg/l	6.75 mg/l
Station #11	West Finger of Launch Ramp	4.90 mg/l	5.13 mg/l
Station #12	Red Bouy #10, Mouth of Harbor	8.00 mg/l	8.25 mg/l
Station #13	Control, 100 yards Offshore	8.45 mg/l	8.95 mg/l



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**ATTACHMENT # 7**

Subject: Harbor Debris Cleanup: July, 2009-March, 2011  
Date: March 30, 2011

During the course of our Harbor Debris cleanup efforts much regularity has been noticed.

Most west-facing docks and fingers are the primary collecting spots for debris. The reason this side collects more debris is most likely due to the direction in which debris are moving. The wind, along with the out-to-sea current at low tide is in an easterly direction. This results in a "comb like" effect, trapping the debris in these areas. Because there are more areas for trash and debris to collect in at these areas, this is where main effort has been concentrated.

A second collection area for debris is in the areas of the Harbor designated as "A" and "B" on the maintenance map. Area "A" is in the vicinity of the storm drain outfall in the northwest corner of the harbor closest to Shoreline Drive. Area "B" is all along the north side of the harbor in the rocks below the seawall in Marinas 2, 3 & 4. For cleanup, a skiff or some small vessel is the only way to reach these areas. These areas are monitored at least once a month and always after holidays.

A third collection area for debris is in the area of the Harbor designated as "C" on the maintenance map. Area "C" is in the vicinity of the boat launch. The main collection point in this area is along the east side of the harbor along the rock jetty. This is most likely due to the same easterly moving debris direction described above. This area also requires cleanup by skiff or some small vessel.

The debris collected that can be categorized as regular or reoccurring consist of; newspapers, cigarettes, plastic bottles and buckets, bags, styrofoam, candy and food wrappers, aluminum cans, tennis balls, rope, kelp, big limbs and bamboo.

We have found that walking along the marinas and docks is more time efficient, covers a larger area and produces a much higher volume of debris than working from a skiff. A skiff is used in areas inaccessible by foot, for removal of larger debris and where it is more efficient.

During the weekend of March 19<sup>th</sup> and 20<sup>th</sup>, 2011, Santa Barbara experienced an unusual amount of rainfall thus creating excessive runoff in many of our local creeks, which in turn carried out to sea a considerable amount of debris.

It was necessary on the following days to request an additional cleanup in the Harbor as a result of this unusual storm event.