

# City of Newport Beach

## Water Quality/Coastal Tidelands Committee Minutes

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**Date:** May 9, 2013

**Time:** 3:00 p.m.

**Location:** Crystal Cove Conference Room

### 1. Welcome/Self Introductions

#### **Committee Members present:**

Chairwoman/Council Member Nancy Gardner

Dennis Baker

Carl Cassidy

Fred Galluccio

George Robertson

Laird Hayes

Tom Houston

Lou Denger

#### **Guests present:**

Jack and Nancy Skinner, SPON

Jim Mosher, resident

George Drayton, resident

Monica Mazur

Donna Ferguson

Jenna Voss, OC Public Works

Kimberly Buss, OC Public Works

Patrick Bauer, City of Costa Mesa

Shalini Nair

#### **Staff present:**

John Kappeler, Water Quality Manager

Bob Stein, Assistant City Engineer

Shane Burckle, Water Conservation Coordinator

Shari Rooks, Public Works Specialist

The agenda for the Water Quality/Coastal Tidelands Committee was posted at 10:40 am on May 8, 2013, on the City Hall Bulletin Board located in the entrance of the Council Chambers at 100 Civic Center Drive.

### 2. Approval of Previous Meeting's Minutes

The minutes from the April 11, 2013 meeting were approved with minor revisions.

### 3. Old Business

#### **A. Bay and Ocean Bacteriological Test Results**

**Monica Mazur** reviewed recent water quality test results within Newport Bay and along the ocean shoreline.

**B. Bob Stein** gave the Committee an update on the various Total Maximum Daily Loads (TMDLs) for Newport Bay so the Committee could determine which TMDL(s) they felt they should prioritize.

- Sediment – we are very close to meeting this TMDL and continue to work with stakeholders to reduce the amount of sediments reaching the bay.

- Selenium – the work plan for Big Canyon is underway with implementation of a project that will start this year for diversion of some hot spots with a potential project next year of dredging some “hot” sediment. The upstream stakeholders are still working on their work plan and appear to be making some progress.
- Fecal Indicator Bacteria (FIB) – these requirements have been met in the harbor with the exception of the “Arches” drain. There are exceedences in the Upper Bay and the creeks. Stakeholders have agreed to proposed revisions to the TMDL that would allow for natural source exclusion.
- Nutrients – levels are significantly reduced, although the Regional Board is considering lowering targets to reduce algae blooms in San Diego Creek. **Jack Skinner** noted that when the Regional Board initiates the selenium TMDL flow control the nitrate levels will automatically be lowered.
- Organochlorine Compounds (OC) - this TMDL has been on the back burner for years until now and it is being actively considered because it has been approved and amended by the State Board. There will be an important discussion by stakeholders as to how to proceed. **Nancy Gardner** stated that the City should not be held to a standard if the state is not going to ban products.
- Copper - there is no current copper TMDL although the Regional Board seems set to promulgate one on the Newport Bay watershed focused on eliminating copper boat paint. City recommends additional studies to determine if copper loads really pose a threat, and if copper is a threat the City feels it should be a state-wide regulation, not just for Newport Beach. **Nancy Gardner** asked if a study had been performed since the dredging of the Rhine Channel and there has not been.
- Trash – there have been indications that there may be a future trash TMDL. Should we be proactive with upstream neighbors to put some trash collection facilities in the Delhi Channel and San Diego Creek to catch storm flows so the City would not have to collect the trash in the bay?
- NPDES Stormwater Permit – We are nearing the end of the current five-year term permit. Before the expiration of the permit the stakeholders have an opportunity to write a report to the Regional Board with their recommended changes to the permit. (Data will be collected from cities at the end of June and then it is “crunch time” beginning in July).

**ACTION:** Nancy Gardner suggested that the Harbor Commission do a presentation on copper because they look at it from a boater’s prospective rather than a water quality prospective.

#### 4. New Business

**John Kappeler** gave a presentation and overview of the proposed “**Arches**” **Water Quality Improvement Project**. (See attached presentation)

- The Arches location is currently the only one in lower Newport Bay not meeting Fecal Coliform TMDL standards. The Arches Bridge is one of the Committee’s priorities – the drains and the exceedences we’ve had there.
- The watershed area is approximately 560 – 600 acres and drains a bit of Newport a lot of Costa Mesa and a good bit of Caltrans Right-of-Way.
- We previously did 2 weeks of flow monitoring and sampling for all three indicators (total coliform, fecal coliform and enterococcus).



- Flow results from the V-ditch – averaged 30,000 gal/day.
- Total coliform averaged 15,000 units/100ml (the limit is 10,000), fecal coliform was 1000 units/100ml (the limit is 400) and enterococcus was 547 units/100ml (the limit is 104).
- The BMPs we've put in place include the bioswale, the 2 Continuous Deflection Separator (CDS) Units, and Costa Mesa screened all of their 115 catch basin and they also have a new project planned for Lions Park (Detention Basin).
- Low Impact Development (LID) has also helped to improve the watershed and Costa Mesa's efforts were described in detail by **Patrick Bauer**.
- **Dennis Baker** asked if there was any possibility of re-directing the flow from the West Side of Costa Mesa away from Newport Bay.
- **Nancy Gardner** asked if we could test the water is flowing under the bioswale.

**ACTION:** Ask Council for funding to design a study that would focus on sampling the Arches storm drain outfall and look at the biofilm, other bacterial sources related to the marina, the pump out station, the time of day and the phase of the tides when we took samples and try to determine if this area really is the source of the problem. Next if the outfall area is ruled out, move upstream and look at the swale and the CDS units as possible sources of biofilm.

5. **Kimberly Buss** and **Jenna Voss** from OC Public Works gave a presentation of their "**Proposed Countywide Adopt a Channel Program.**" (See attached presentation)
- Disneyland Resort approached OC Public Works in July 2010 and asked to adopt a segment of the Anaheim-Barber City Channel and in August 2012 trash and graffiti removal began.
  - Municipal activities related to the Adopt a Channel Program include: litter enforcement, street sweeping, catch basin and channel cleaning, graffiti removal, booms, screens and other structural devices.
  - Adoption prototypes: Corporate adoption of a channel using the current pilot program format or non-profit/volunteer-based adoption of a concrete-lined channel or an earthen-bottom channel.
  - Potential Program Marketing Advantages: Earned media potential working with local media outlets; link from OC Stormwater web pages and social media to highlight stewardship; website linking with the County, OC Stormwater and adopting organizations.
  - They have identified over 120 miles of concrete-lined channels available for adoption in the county and are working on identifying the earthen-lined channels available.
  - OC Public Works is currently working on program signage and iconography.
  - **Tom Houston** asked about using trustees or high school students interested in earning work credits for labor. The OC Public Works used to have inmate labor for graffiti abatement, however they are no longer able to use trustees.
  - **Dennis Baker** suggested the premier location for program advertising would be across the top of the trash booms.
  - **Jack Skinner** pointed out the most important thing to consider when cleaning the Delhi channel is to be sure to do it in the spring and definitely before the first storm flow in the fall.

**5. Public Comments on Non-Agenda Items**

**6. Topics for Future Agendas**

- (a) Bacteriological Dry-Weather Runoff Gutter Study (Phase III)
- (b) Prop 84 ASBS Grant Program
- (c) Big Canyon Project
- (d) Rhine Channel Project Wrap Up
- (e) Senate Bill – SB 1447

**Set Next Meeting Date**

The next meeting date was set for June 13, 2013, at 3 PM in the **Newport Coast Meeting Room**

**7. Adjournment**

The meeting was adjourned at 4:45 pm.

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Chairwoman / Nancy Gardner



Health Care Agency / Environmental Health Newport Bay Bacteriological Monitoring Program  
Total Coliform (TC), Fecal Coliform, Enterococcus (ENT) Colony Forming Units / 100 ml Sample

STATION	Location Description		1/7/13	1/14/13	1/22/13	1/28/13	2/4/13	2/13/13	2/20/13	2/25/13	3/6/13	3/11/13	3/18/13	3/25/13	4/3/13	4/8/13	4/17/13	4/22/13	4/29/13	5/6/13	
NEWPORT BAY (Lower Bay)																					
BNB09	43rd Street Beach	TC	<10	<10	10	>70	50	30	50	40	<10	70	20	70	>3800	30	>80	100	30	>40000	
		FC	<10	<10	<10	10	<10	<10	10	<10	<10	10	10	<10	<10	300	10	<10	60	10	11000
		ENT	4	<2	2	<2	<10	2	10	4	<2	<2	<2	218	20	8	10	98	10	400	
BNB10	38th Street Beach	TC	230	20	30	80	<10	10	50	80	60	30	<10	10	30	30	20	20	270	11000	
		FC	10	<10	10	10	<10	<10	<10	30	<10	<10	<10	<10	<10	<10	<10	<10	10	1870	
		ENT	52	4	10	6	10	8	2	44	38	6	2	2	2	6	<2	2	<2	140	
BNB11	33rd Street Channel	TC	4200	360	100	100	20	20	28000	50	30	20	80	100	30	10	40	30	95	1620	
		FC	40	<10	10	<10	<10	10	840	<10	<10	<10	30	<10	<10	<10	<10	<10	<10	250	
		ENT	72	10	20	<2	4	8	350	6	4	<2	20	8	<2	4	<2	4	<2	50	
BNB32	Lido Yacht Club Beach	TC	10	<10	<10	>490	80	<10	20	40	10	40	10	<10	<10	>60	<10	<10	80	30	
		FC	<10	<10	<10	10	<10	<10	10	<10	<10	<10	20	<10	<10	<10	<10	<10	30	<10	
		ENT	10	<2	90	4	2	6	2	100	<2	<2	2	<2	4	<2	<2	<2	<2	20	
BNB07	Via Genoa Beach	TC	<10	10	<10	>710	30	10	250	<10	<10	20	70	<10	10	>70	<10	30	10	40	
		FC	<10	<10	10	100	20	10	60	<10	<10	10	20	<10	<10	20	<10	<10	<10	10	
		ENT	2	4	6	10	2	<2	60	6	<2	2	20	4	2	20	2	2	2	<2	
BNB35	Newport Blvd. Bridge	TC	9600	330	>19000	>1390	>40000	340	>40000	<10	40000	120	>40000	170	>40000	330	>1030	240	8000	40000	
		FC	4200	<10	5000	100	1100	70	>40000	<10	23600	<10	95	60	900	<10	310	20	50	12000	
		ENT	1000	78	3800	>180	1000	10	23800	<2	6200	2	150	20	800	8	140	44	110	8200	
BNB12	Rhine Channel	TC	40	20	210	>250	20	20	120	<10	<10	30	70	<10	<10	60	30	20	30	60	4400
		FC	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	20	<10	<10	<10	490
		ENT	<2	<2	<2	2	<2	2	<2	<2	<10	2	<2	<2	8	<2	<2	<2	<2	8	140
BNB14	19th Street Beach	TC	60	20	<10	>640	30	70	<10	<10	>110	<10	<10	10	40	>20	<10	<10	10	80	
		FC	10	10	<10	30	<10	<10	<10	<10	<10	10	<10	<10	<10	30	<10	<10	<10	<10	
		ENT	20	24	4	4	4	8	2	<2	<2	<2	2	<2	>2	8	2	2	<2	2	
BNB15	15th Street Beach	TC	20	30	20	>320	<10	<10	100	10	10	20	<10	<10	580	10	95	110	30	480	
		FC	<10	<10	<10	30	<10	<10	<10	<10	<10	<10	<10	<10	140	<10	80	95	20	130	
		ENT	4	2	6	2	<2	<2	10	<2	2	2	140	<2	<2	4	2	8	<2	110	
BNB17	10th Street Beach	TC	20	<10	120	>430	95	<10	40	<10	<10	50	10	<10	50	>10	<10	30	<10	10	
		FC	<10	10	50	250	40	<10	20	<10	<10	<10	<10	<10	<10	20	<10	<10	<10	<10	
		ENT	<2	10	6	236	6	10	10	<2	<2	4	<2	<2	4	<2	<2	4	4	4	
BNB18	Alvarado/ Bay Isle Beach	TC	100	20	100	>920	10	30	20	20	70	110	10	10	<10	>320	<10	10	<10	40	
		FC	20	<10	10	95	10	<10	<10	10	10	<10	<10	<10	10	360	<10	<10	<10	<10	
		ENT	88	6	1000	6	4	10	78	8	329	2	<2	<2	4	26	2	4	2	8	
BNB22	N Street Beach	TC	10	10	<10	250	30	<10	10	<10	10	<10	<10	<10	20	10	<10	<10	<10	10	
		FC	<10	<10	<10	30	10	<10	<10	<10	<10	<10	10	<10	30	<10	10	<10	<10	<10	
		ENT	4	<2	<2	<2	4	<2	4	<2	6	<2	<2	<2	2	2	2	<2	<2	<2	
BNB31	Garnet Avenue Beach	TC	50	10	40	>880	80	<10	50	30	40	180	10	10	460	>10	<10	10	>20	30	
		FC	60	<10	10	30	<10	10	50	<10	<9	<10	<10	10	410	<10	<10	10	10	<10	
		ENT	24	2	2	8	6	8	100	<2	3	2	20	<2	20	2	<2	22	10	2	
BNB03	Ruby Avenue Beach	TC	10	<10	<10	>580	50	10	10	<10	9	100	<10	10	30	>70	<10	10	10	120	
		FC	10	<10	<10	70	<10	10	<10	<10	9	<10	10	<10	<10	<10	<10	<10	<10	30	
		ENT	4	<2	<2	190	<2	10	10	2	2	6	<2	2	<2	52	<2	6	10	10	
BNB20	Sapphire Avenue Beach	TC	20	10	20	>460	30	20	20	<10	9	10	40	10	30	>10	<10	10	100	30	
		FC	<10	<10	<10	20	10	20	<10	<10	9	<10	40	10	10	<10	<10	10	20	20	
		ENT	<2	2	<2	4	4	2	<2	<2	4	<2	4	<2	4	<2	4	10	2	4	
BNB34	Grand Canal	TC	190	20	95	>560	130	60	860	<10	990	20	380	<10	20	20	30	10	10	450	
		FC	180	<10	110	30	120	50	<10	<10	440	10	260	<10	20	<10	<10	<10	<10	50	
		ENT	22	2	<2	<2	68	20	42	<2	226	<2	20	2	42	4	4	8	<2	64	
BNB21	Abalone Avenue Beach	TC	30	<10	150	>300	10	30	80	<10	90	160	30	80	100	100	>140	100	20	100	
		FC	<10	<10	130	20	20	<10	<10	<10	20	70	30	50	130	40	80	100	<10	50	
		ENT	<2	2	10	6	2	10	10	<2	10	4	<2	10	72	24	68	28	2	10	
BNB01	Park Avenue Beach	TC	10	20	<10	>690	40	<10	70	130	9	50	20	40	20	10	20	30	10	>580	
		FC	10	<10	<10	30	<10	10	<10	<10	<9	<10	<10	10	<10	<10	<10	<10	<10	40	
		ENT	2	<2	2	<2	2	2	8	<2	3	<2	<2	<2	<2	<2	<2	2	2	42	
BNB02	Onyx Avenue Beach	TC	130	10	80	>850	<10	40	10	40	<10	190	10	<10	10	160	10	70	40	270	
		FC	10	10	<10	160	<10	20	10	<10	<10	10	<10	<10	<10	95	<10	10	30	20	
		ENT	10	4	20	22	2	4	20	6	2	6	<2	4	10	120	10	20	2	26	
BNB29	Promontory Point Channel	TC	<10	20	<10	>670	>40000	<10	20	<10	<10	20	10	<10	<10	<10	<10	<10	40	<10	
		FC	<10	<10	<10	20	20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
		ENT	<2	<2	<2	20	<2	2	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
BNB33	Bayside Drive Beach	TC	<10	60	30	100	>100	10	130	60	30	20	150	30	>270	>260	10	60	60	6000	
		FC	<10	<10	<10	<10	30	<10	40	40	<10	20	60	<10	60	160	10	10	60	510	
		ENT	<2	6	2	<2	4	6	6	2	2	<2	20	<2	42	40	<2	10	42	2000	
BNB23	Rocky Point Beach	TC	<10	10	<10	30	<10	110	60	<10	<10	<10	<10	<10	20	<10	20	>10	<10	10	
		FC	<10	<10	<10	20	10	40	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	10	
		ENT	<2	<2	4	2	<2	6	10	<2	<2	<2	<2	<2	10	<2	4	4	<2		



**Health Care Agency / Environmental Health Newport Bay Bacteriological Monitoring Program**  
**Total Coliform (TC), Fecal Coliform (FC), Enterococcus (ENT) Colony Forming Units / 100 ml Sample**

STATION	Location Description		1/7/13	1/14/13	1/22/13	1/28/13	2/4/13	2/13/13	2/20/13	2/25/13	3/6/13	3/11/13	3/18/13	3/25/13	4/3/13	4/8/13	4/17/13	4/22/13	4/29/13	5/6/13	
<b>NEWPORT BAY (Upper Bay)</b>																					
BNB24	Newport Dunes - Middle	TC	130	10000	40	>5400	95	50	1610	20	200	>1220	70	80	>70	>10	<10	20	<10	110	
		FC	10	6800	20	240	80	30	1060	20	230	70	10	40	30	30	<10	<10	<10	10	
		ENT	22	96	2	68	10	24	600	10	34	24	6	4	6	2	<2	<2	<2	2	20
BNB24	Newport Dunes - West	TC	450	8000	70	>5400	210	220	3200	95	530	>1480	>180	80	400	40	<10	>10	20	80	
		FC	40	6200	20	200	70	80	1160	70	310	60	95	40	260	<10	<10	<10	10	<10	
		ENT	24	327	2	70	24	32	2400	20	224	20	62	4	24	2	<2	<2	<2	2	20
BNB24	Newport Dunes - East	TC	10	12000	300	>4800	130	180	630	50	40	>840	40	290	10	<10	<10	<10	<10	80	
		FC	10	7800	230	310	80	10	470	20	20	80	10	200	<10	10	30	<10	<10	40	
		ENT	4	42	20	62	10	10	7600	10	8	20	30	38	2	6	<2	2	2	10	
BNB24	Newport Dunes - North	TC	100	5400	>10	>7000	>320	130	280	10	130	>700	>60	20	40	>325	>30	10	80	130	
		FC	50	3000	<10	240	250	20	140	<10	10	100	80	10	10	180	<10	<10	10	20	
		ENT	50	34	8	98	20	10	56	<2	32	4	6	10	6	60	<2	<2	6	36	
BNB25	Vaughn's Launch	TC	NS	110	NS	>7200	NS	NS	NS	10	NS	>380	NS	20	NS	>40	NS	NS	NS	NS	
		FC	NS	20	NS	300	NS	NS	NS	<10	NS	30	NS	10	NS	10	NS	NS	NS	NS	
		ENT	NS	8	NS	80	NS	NS	NS	6	NS	6	NS	10	NS	220	NS	NS	NS	NS	
BNB26	Ski Zone	TC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
		FC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
		ENT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
BNB28	North Star Beach	TC	180	30	30	>1240	>450	>340	1660	<10	160	>500	60	10	<10	10	100	>10	<10	>430	
		FC	10	20	30	70	30	20	80	<10	10	20	<10	<10	<10	<10	<10	<10	<10	80	
		ENT	2	400	38	26	54	150	96	10	38	8	28	8	4	4	8	2	<2	130	
BNB30	De Anza	TC	160	50	10	>840	320	50	13000	10	50	260	60	10	<10	10	40	>10	30	170	
		FC	30	<10	<10	70	10	10	170	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
		ENT	<2	4	6	20	44	36	600	6	36	<2	30	<2	10	2	<2	8	6	4	
BNB05	Bayshore Beach	TC	110	60	10	>790	180	10	620	20	60	70	80	20	<10	10	20	40	10	40	
		FC	<10	<10	10	20	60	<10	30	10	20	10	20	<10	10	10	20	<10	10	20	
		ENT	4	2	2	10	32	20	50	<2	42	4	38	2	<2	<2	28	4	<2	4	
<b>NEWPORT BAY TRIBUTARIES</b>																					
CNBCD	San Diego Creek - Campus Dr.	TC	29600	>630	>660	>58000	>3400	>3700	103000	2600	>700	>17000	>2400	>680	>1900	NS	>270	>150	>240	>7800	
		FC	410	95	70	2200	140	210	12000	100	10	400	60	60	330	NS	30	40	50	2600	
		ENT	1000	64	58	600	120	150	20000	20	20	10	48	26	400	NS	50	54	28	3200	
CNBSA	Santa Ana Delhi Channel	TC	18000	100	>3300	>35000	>6200	>2800	200000	5100	>3900	>11000	>1170	>4100	>3600	NS	>4000	>3000	>530	40000	
		FC	370	<10	60	480	360	450	15000	100	260	380	80	360	320	NS	170	400	350	40000	
		ENT	216	100	100	150	150	412	30000	40	150	378	100	150	210	NS	140	600	110	40000	
CNBBC	Big Canyon Creek	TC	>280	>340	>230	>510	>430	420	4000	210	>350	>440	>520	>490	>500	>480	>880	>260	>380	12000	
		FC	140	80	80	270	380	100	1640	60	40	80	70	80	10	160	380	40	10	4000	
		ENT	800	230	190	120	120	130	2200	140	140	58	150	60	38	48	224	56	36	6400	
CNBND	Backbay Drive Pipe	TC	>160	>640	5000	>9000	>6000	16000	>250	370	>440	>1380	>750	>910	>190	>660	>6200	2000	19000	7800	
		FC	70	220	960	330	4000	4200	50	95	20	60	10	70	<10	80	860	80	5000	1700	
		ENT	82	48	>396	86	42	406	160	28	36	120	40	120	44	400	600	600	6800	3400	
<b>NEWPORT SLOUGH</b>																					
BNS01	Lancaster Street & 61st Street	TC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	>120	>50	10	>50	>70	NS	
		FC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10	<10	<10	10	<10	NS
		ENT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	4	42	6	10	8	NS
BNS02	Lancaster Street & Canal Street	TC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	40	95	30	10	30	NS	
		FC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	30	10	<10	40	20	NS	
		ENT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10	4	4	8	8	NS	

NS - NOT SAMPLED  
 LA - LAB ACCIDENT  
 Cw/(o)C- CONFLUENT GROWTH WITH(OUT) COLIFORMS  
 TNTC - TOO NUMEROUS TO COUNT

SINGLE SAMPLE STANDARDS:  
 Total Coliforms - 10,000 organisms per 100 milliliters sample.  
 Fecal Coliforms - 400 organisms per 100 milliliters sample.  
 Enterococci - 104 organisms per 100 milliliters sample.  
 Fecal:Total Ratio - > 1000 total coliforms if ratio exceeds 0.1.

New Data  
Single Sample Standard Violation.  
Long-term Posting Location.  
Creek/Drain Sample Location.  
Rain Influenced Data.

30-DAY LOG MEAN STANDARDS (of five weekly samples)  
 Total Coliforms - 1,000 organisms per 100 milliliters sample.  
 Fecal Coliforms - 200 organisms per 100 milliliters sample.  
 Enterococci - 35 organisms per 100 milliliters sample.



CCSD Bacteriological Ocean Monitoring Program

Total Coliform (TC), Fecal Coliform (FC),

Enterococcus (ENT) Colony Forming Units/100 ml Sample

DATE	1/2	1/3	1/8	1/9	1/15	1/16	1/22	1/23	1/29	1/30	2/5	2/6	2/13	2/14	2/19	2/20	2/26	2/27	3/5	3/6	3/12	3/13	3/19	3/20	3/25	3/27	4/2	4/3	4/9	4/10	4/16	4/17	4/23	4/24	4/30	5/1			
Location/ Tide	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN	RAIN		
Bolsa Chica Beach	FC <17	NS	33	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
Bolsa Chica Reserve	FC <17	NS	32	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	
Bolsa Chica 33N	ENT	4	NS	34	NS	2	NS	4	NS	4	NS	2	NS	48	NS	2	NS	6	NS	<2	NS	6	NS	4	NS	40	NS	2	NS	4	NS	2	NS	8	NS	8	NS	8	
Bluffs 27N	FC <17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
17th Street 21N	FC <17	NS	83	NS	<17	NS	<17	NS	<17	NS	<2	NS	<2	NS	10	NS	<2	NS	12	NS	6	NS	2	NS	<2	NS	2	NS	18	NS	58	NS	12	NS	6	NS	6	NS	
Jacks Snack Bar	FC <17	NS	33	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	50	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
Beach Blvd. 12N	FC <17	NS	50	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
SCE Plant 9N	FC <17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
Magnolia Street	FC <17	NS	4	NS	82	NS	<2	NS	8	88	10	28	2	10	2	26	122	2	4	<2	NS	4	<2	NS	4	<2	NS	4	6	10	<2	NS	<2	NS	<2	NS	<2	NS	
Brookhurst 3N	FC <17	NS	33	NS	100	NS	17	480	120	17	<17	NS	<17	NS	<17	NS	500	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	
Santa Ana River Mouth	FC <17	NS	67	NS	100	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
Orange Street	FC <17	NS	100	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
52nd/53rd Street	FC <17	NS	32	NS	28	NS	66	NS	12	NS	18	NS	90	NS	12	NS	66	NS	12	NS	4	NS	14	NS	<2	NS	2	NS	<2	NS	8	NS	<2	NS	<2	NS	<2	NS	<2
38th Street	FC <17	NS	17	NS	170	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	50	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
15th/16th Street	FC <17	NS	6	NS	272	NS	6	NS	2	NS	12	NS	8	NS	6	NS	74	NS	4	NS	<2	NS	2	NS	<2	NS	<2	NS	6	NS	<2	NS	<2	NS	<2	NS	<2	NS	
Balboa Pier 21S	FC <17	NS	17	NS	17	NS	<17	NS	<17	NS	33	NS	17	NS	17	NS	33	NS	33	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	
The Wedge 27S	FC <17	NS	8	NS	38	NS	30	NS	6	NS	10	NS	44	NS	10	NS	58	NS	4	NS	<2	NS	2	NS	<2	NS	2	NS	<2	NS	4	NS	2	NS	6	NS	<2	NS	
Corona Del Mar Beach	FC <17	NS	<2	NS	<2	NS	2	NS	8	NS	<2	NS	2	NS	4	NS	34	NS	<2	NS	<2	NS	<2	NS	<2	NS	<2	NS	6	NS	2	NS	<2	NS	<2	NS	<2	NS	
Crystal Cove 39S	FC <17	NS	<17	NS	17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17	NS	<17		

SPRING TIDES

NEW DATA

SINGLE SAMPLE / STANDARD VIOLATION

NO SAMPLE / NO DATA

CONFIDENT GROWTH WITHOUT SHEEN

CONFIDENT GROWTH WITH SHEEN

CONFIDENT GROWTH WITH BLUE (FECAL INDICATOR)

NS

CWOS

CWS

CWB



# City of Newport Beach Arches WQ Improvement Project

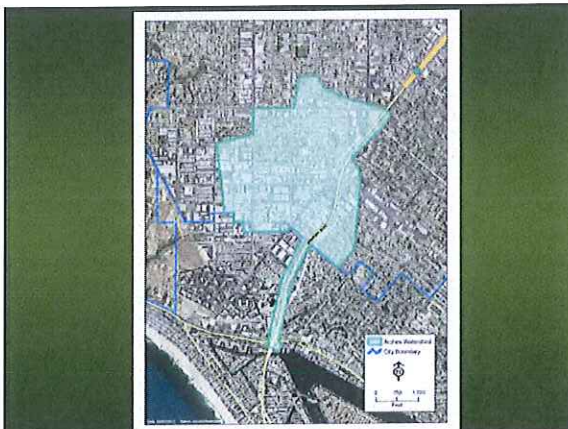
John Kappeler  
City of Newport Beach  
May 9<sup>th</sup>, 2013

## Newport Harbor



## Background

- Weekly bacteria monitoring in Newport Bay shows frequent AB411 violations
- The only location (currently) in lower Newport Bay not meeting Fecal Coliform TMDL standards
- Long term posting in place at this location – **1999**
- 2004 completed an intensive flow and water quality monitoring project
- Numerous Best Management Practice (BMPs) installed in the watershed

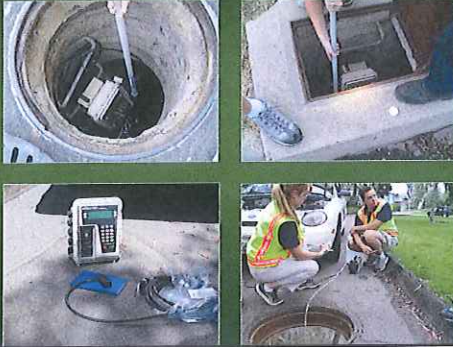


## Flow & WQ Monitoring Project





## Flow & WQ Monitoring Project



## Flow & WQ Monitoring Project Results

### Arches V-Ditch

- Average Flow (gpd) – 30,000
- Total Coliform – 15,138
- Fecal Coliform – 997
- Enterococcus - 547

### Arches Outfall

- Concentrations are 1-2 orders lower, but still exceed standards

## Watershed BMPs

- Bioswale
- CDS Units
- Catch Basin Screens
- Lions Park Detention Basin
- West Side Coast Mesa Development
- Pump Out Station Inspection Program
- Street Sweeping & Catch Basin Cleaning

## Watershed BMPs



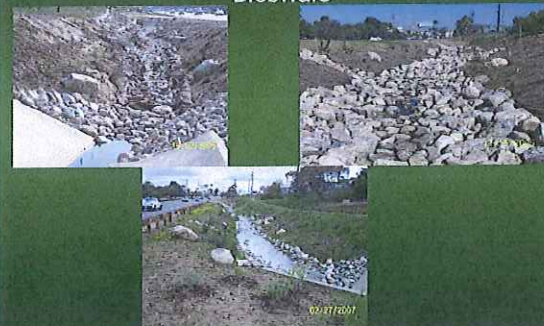
## Watershed BMPs

### Bioswale



## Watershed BMPs

### Bioswale





### Watershed BMPs CDS Units



### Watershed BMPs Catch Basin Screens

Installation of 115 ARS catch basin screens in this sub-watershed

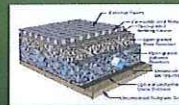


### Watershed BMPs Lions Park Detention Basin



### Watershed BMPs West Side Costa Mesa Development

Redeveloped approximately 15 acres with new LID requirements in the effected sub-watershed



### Watershed BMPs Pump Out Station Inspection Program



### Watershed BMPs Street Sweeping & Catch Basin Cleaning





## Next Steps?

- Step 1: Focus on the Arches storm drain outfall
- Step 2: Assess bacterial contributions from the bioswale, and (CDS) Units
- Step 3: Conduct watershed-wide Microbial Source Tracking Study (MST)

## Step 1:



- Determine bacterial loading from outfall



- Assess bacterial contributions from biofilm in outfall



- Investigate other bacterial sources related to the marina

## Step 2:

### Assess Bacterial Contributions from Bioswale and CDS Units

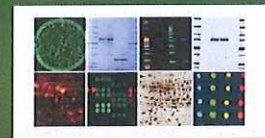
- Bioswale and CDS units may serve as biofilm "media" allowing bacteria to accumulate and regrow
- This study will determine bacterial contributions from bioswale and CDS units



## Step 3:

### Conduct watershed-wide Microbial Source Tracking Study (MST)

- MST investigations involve using field and laboratory methods to identify potential sources of bacteria to waterbodies.



## Step 3:

### Estimated Study Costs

1. Arches Drain Outfall & Marina	\$20,000
2. Arches Drain Bioswale & CDS	\$10,000
3. Arches Watershed Microbial Source Tracking Study	\$250,000 - \$300,000

*Thank You*



## AB 411 Criteria

- Long-term Average
  - 30-day geometric mean (minimum 5 weekly samples)
  - Total Coliform 1,000 CFU/100 mL
  - Fecal Coliform 200 CFU/100 mL
  - Enterococcus 35 CFU/100 mL
- Single Sample
  - Total Coliform 10,000 CFU/100 mL
  - Fecal Coliform 400 CFU/100 mL
  - Enterococcus 104 CFU/100 mL
  - FC/TC > 0.1 TC > 1,000 CFU/100 mL



## Total Maximum Daily Loads (TMDLs) Update (15 minutes)

May 8, 2013

Water quality in Newport Bay has significantly improved since the 1985, most TMDL targets have been met, and the City thinks delisting for most of the TMDL's is within reach.

### 1. Sediment

Most of the sediment TMDL targets to reduce sediment loads to Newport Bay and San Diego Creek are close to being completed. Task remaining include working with the stakeholders to:

- a. Reduce the amount of fine sediments reaching the bay from the foothills and Borrego Canyon
- b. Excavate excess material in San Diego Creek
- c. Eliminate requirements for maintaining the In-channel basins and reduce monitoring costs
- d. Delist

### 2. Selenium

The upper watershed is under a selenium TMDL; Big Canyon is not yet covered by that TMDL.

The work plan prepared for Big Canyon in August 2011 has been reviewed and approved by the Regional Board with minor comments. We are now implementing work plan tasks.

The upper watershed partners are taking a different approach and are still in the planning stage. They appear to be making some progress. Our hope is that they will complete their planning in FY 13/14.

### 3. Fecal Indicator Bacteria (FIB)

FIB TMDL requirements have almost been met in the harbor, the exception being at the outlet of the Arches drains. There are exceedences in Upper Bay and the creeks. The stakeholders have agreed to proposed revisions to the TMDL that would allow for natural source exclusion. The Regional Board is waiting for the County to forward the proposed revisions. The nominal deadline for the revisions to be implemented is December 31, 2014.

### 4. Nutrients

Nutrient levels are significantly reduced, however, the Regional Board is considering lowering targets to reduce algae blooms in San Diego Creek

### 5. Organochlorine Compounds (OC)

The State Board has approved an amended TMDL extending the term of the TMDL. It is now with the Office of Legislative Affairs. A very important discussion to determine the direction for addressing this TMDL will occur shortly among the stakeholders. Impairments have been measured but it does not appear to be associated with OCs. The City's approach is to continue



to take measures to reduce loads from DDT, PCB and chlordane and work with State and federal agencies to eliminate use of new toxic products.

6. Copper

The Santa Ana Regional Board seems set to promulgate a copper TMDL on the Newport Bay watershed focused on eliminating copper boat paint. The City thinks only a state-wide regulation can be effective. The City will work with the Regional Board to recommend additional studies to check to see if copper loads really pose a threat.


7. Trash

There have been indications that there could be a future trash TMDL. Is addressing trash a priority for the city?

8. NPDES Stormwater Permit


- a. General Observation: The City has one of the best programs in the county.
- b. Question: Is all the paperwork and documentation still necessary?
- c. Can requirements be streamlined based on good performance results?
- d. Can resources be refocused to be more cost effective?
- e. Can community educational outreach be improved?
- f. Are we ready for the next round of permit negotiations?



ORANGE COUNTY  
  
*Our Community. Our Commitment.*

**Proposed Countywide Adopt a Channel Program**  
 Presented to the  
 City of Newport Beach  
 Water Quality/Coastal Tidelands Committee

**Kim Buss & Jenna Voss**  
 County of Orange  
 May 9, 2013




## Our Water Future

*A survey conducted in 2012 asked Orange County residents to rank in importance to them several environmental priorities.*


Preserving the environment for my children and grandchildren	63	88
Ocean pollution	53	86
Pollution of our local creeks, rivers, and bays	52	82
Keeping my neighborhood clean	48	77
Litter in my community and local parks	34	67

*Preserving a legacy for future generations is very important; however, this is tied to preventing pollution, and keeping neighborhoods clean.*




## Overview

- ⦿ Background
- ⦿ Other successful adoption models
  - CalTrans
  - OC Parks
- ⦿ Pilot Adopt a Channel Program
- ⦿ Transition to a Countywide Adopt a Channel Program
  - Adoption Prototypes
  - Trash & Debris Booms
  - Benefits



## Our Water Future


- ⦿ **Making Progress:** Water quality at beaches in Orange County this past summer was excellent overall with 93% of beaches receiving an A grade (2012 *Heal the Bay Report Card*).
- ⦿ **Many Remaining Challenges:** Trash & debris and other pollutants



## Water Resource Stewards

*There is not a "fragment" in all nature, for every relative fragment of one thing is a full harmonious unit in itself.*

- John Muir (A Thousand Mile Walk to the Gulf, 1916)



## Successful "Adoption" Format

- ⦿ CalTrans Adopt-A-Highway
  - **Adoption elements:** Litter removal, graffiti removal, vegetation control, tree & wildflower planting
  - **Program benefits:** Pollution source control, aesthetically improved roadsides and promotion of community pride
  - **Volunteer benefits:** Courtesy sign recognizing participants
  - From July 2009 through June 2010, participants collected nearly 16,741 yd<sup>3</sup> of litter from roadsides, saving \$11,280,000 in maintenance costs.





## Successful "Adoption" Format

- OC Parks Adopt-A-Park
  - Volunteer activities: greeting visitors at nature centers, park administrative assistance, photo documenting park lands, tree planting and seeding, presenting environmental education programs, building/repairing nesting boxes, building/repairing trails



## Genesis of Adopt a Channel

### Volunteer Cleanup Events



- Annual Inner-Coastal Cleanup Day throughout the County in coordination with other organizations = 9,000 volunteers in one day
- Recent increase in the number of small-scale scheduled cleanup events throughout the year under staff supervision and use of individual liability waiver forms;
- Through encroachment permits where fees are waived



## Genesis of Adopt a Channel



## Genesis of Adopt a Channel

### Adopt a Channel

- July 2010:** Disneyland Resort approaches OC Public Works to adopt a segment of Anaheim-Barber City Channel
- August 2010:** Adoption Work Group formed to compose program work plan
- June 2012:** Agreement approved by Board of Supervisors
- August 2012:** Trash and graffiti removal begins



## Genesis of Adopt a Channel

### Municipal Activities

- Litter enforcement
- Street sweeping
- Catch basin and channel cleaning
- Graffiti removal
- Booms, screens and other structural devices



## Pilot Adoption Goals

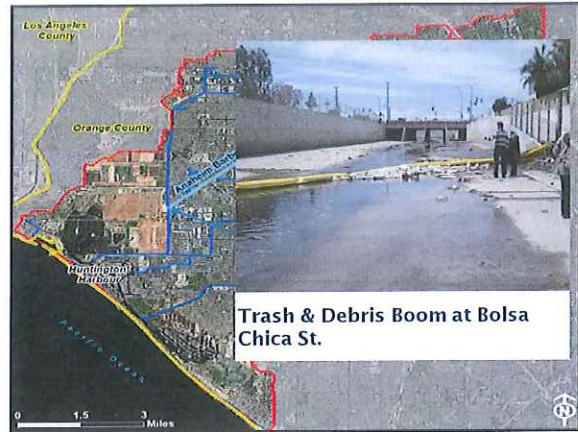
- Inspect channels on a more regular basis
  - Minimum bimonthly basis
- Remove trash and debris on a regular basis
  - As needed based on inspections
- Remove graffiti on a more regular basis
  - As needed based on inspections
- Increase visibility and promote stewardship of channels and other waterways
  - Everyday



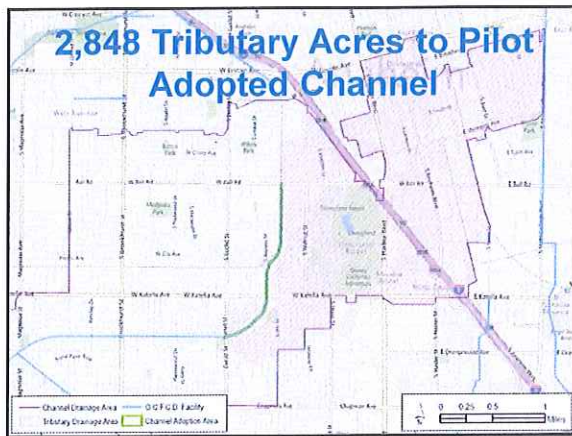


## Pilot Adoption Implementation

- Agreement with Disneyland Resort for a pilot adoption of 2 miles of Anaheim Barber City Channel approved by the Board of Supervisors on June 19, 2012
- Orange County Conservation Corps (OCCC)
  - Weekly inspection/maintenance performed
  - 402 lbs. of trash/debris removed/disposed of in the first six months
  - 5,480 ft<sup>2</sup> of graffiti abatement in the first six months and participation in the Sheriff's TAGRS Program
  - The cost of adopting a mile of concrete channel estimated to be \$500-\$750/month for trash and graffiti removal



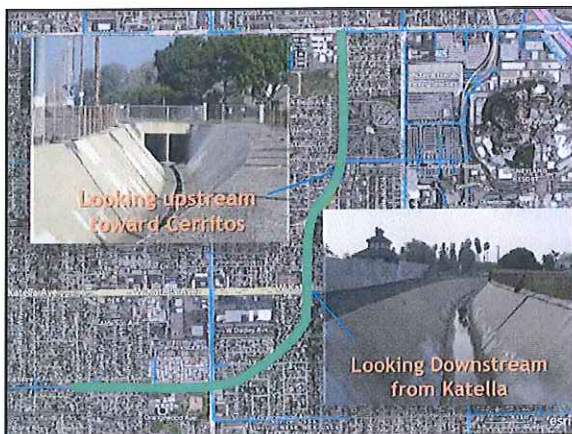
Trash & Debris Boom at Bolsa Chica St.



## Adoption Prototypes

- Concrete-lined Channels\*
  - Corporate adoption of Concrete-lined channels (current pilot program format)
  - Non-profit/volunteer-based adoption of Concrete-lined channels
- Earthen-bottom/Rip-rap Channels\*
  - Corporate adoption of earthen channels
  - Non-profit/volunteer-based adoption of earthen channels

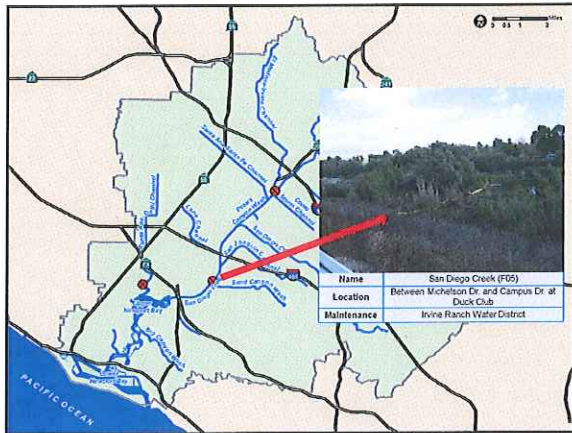
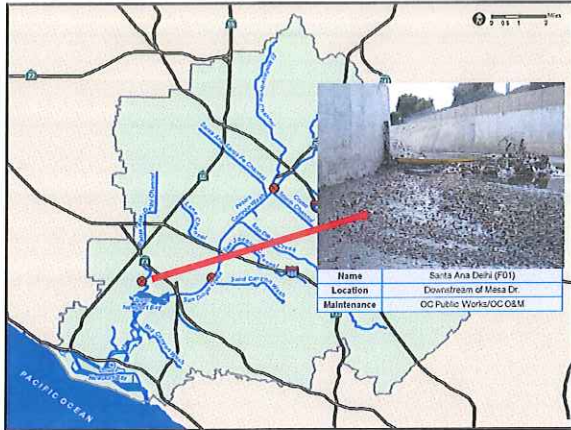
\*May include trash and debris booms



## Trash & Debris Booms







## Potential Adopter Benefits

- ◎ Signage
  - Adopt-A-Highway model
  - Educational information about the watersheds
  - Signs placed at publicly visible locations
- ◎ Use of logo on correspondence
  - Show organization support of Program on letters, email, social media, etc.
- ◎ Website recognition
  - Establish a dedicated page for Adopt A Channel Program and adopters – link from organization websites to [www.ocwatersheds.com](http://www.ocwatersheds.com)

OC Public Works  
 Orange County



## Potential Program Marketing

- ◎ Earned Media Potential
  - Work with local media outlets
- ◎ OC Stormwater Program
  - Link from OC Stormwater web pages and social media to highlight stewardship
- ◎ Website Linking
  - County, OC Stormwater and adopting organizations all cross-link list of adopters and efforts to keep channels clean



Questions?



Thank You!

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