DRAFT

City of Newport Beach
Coastal/Bay Water Quality Citizens Advisory Committee Minutes

Date: April 12, 2012
Time: 3:00 p.m.
Location: Fire Conference Room

1. **Welcome/Self Introductions**
   Committee Members present:
   Chairwoman/Mayor Nancy Gardner
   Dennis Baker
   Tom Houston
   Jim Miller
   Randy Seton

   Guests present:
   George Drayton
   Jim Mosher
   Dan Purcell
   Pamela Berstler, G3 Green Gardens Group
   Paul Herzog, Surfrider Foundation
   Katie Klein, Surfrider Foundation

   Staff present:
   Shane Burckle, Water Conservation Coordinator
   Shari Rooks, Public Works Specialist
   Bob Stein, Assistant City Engineer

2. **Approval of Previous Meeting's Minutes**
   The minutes from the March 8, 2012 were approved.

3. **Old Business**
   (a) **Bay and Ocean Bacteriological Test Results**
   Shane Burckle reviewed recent water quality test results within Newport Bay and along the ocean shoreline.

4. **New Business**
   (a) **Paul Herzog,** from Surfrider Foundation and **Pamela Berstler,** from Green Gardens Group gave a presentation on their **Ocean Friendly Gardens Program**. (See attached PowerPoint Presentation.)
   - Surfrider Foundation has been working for cleaner coasts and oceans for 28 years and got involved with the Green Gardens Program in an effort to attain zero runoff into the ocean.
   - Watershed Restoration – CPR for landscape involves Concentration, Permeability and Retention – **Slow it, Spread it, Sink it.**
   - Santa Monica has a new program called "Retrofit on Resale" and requires a new owner to retrofit the property and be responsible for capturing the "first flush."
   - Ocean Friendly Gardens Program was officially created 3 years ago. Activities include a Neighborhood Lawn Patrol; a Watershed Basics Class; Hands-On Workshops (HOWS) and a Garden Assistance Party.

- Ocean Friendly Garden signs can be applied for online at www.oceanfriendlygardens.org (See attached sign criteria).
- **Tom Houston** suggested Surfrider might approach the IRWD for funds or cooperation.

ACTION: **Mayor Gardner** asked the Chapter to come up with a plan to propose to the City.

(b) **Bob Stein**, Assistant City Engineer presented an update on the Lower Buck Gully Project. (See attached PowerPoint presentation).

- Newport Coast was incorporated into the City in 2002 and since then we've instituted a number of mitigation and restoration projects of which Buck Gully is the largest and most ambitious to date. (Less than $1.2 Million)
- In 2004 City Council decided to fix Morning Canyon by installing gabion structures.
- The second gabion-type project at 5th & Poppy started in 2006 with the restoration of the Arizona crossing at Buck Creek.
- A subterranean filter was installed to collect selenium and is the first filter of this type in Southern California – it is a passive filter and will not require maintenance.
- **Randy Seton** asked if this type of filter was successful in Buck Gully could it work in Big Canyon to collect selenium.
- The "Swamp" at Crystal Cove is another restoration project.
- The Upper Buck Gully Trail bridges are being installed and the trail should be open in the next few weeks.

5. **Public Comments on Non-Agenda Items**
   - **Jim Mosher** noted he did not see the CBWQ meeting on the City's homepage. Staff verified that although the meeting did appear on the April Calendar on the homepage it was not specifically listed under the homepage's heading of "Meetings and Events" - steps will be taken in the future to have it appear there also.
   - **Mayor Gardner** announced the First Mayor's Walk will take place on Saturday, the 19th of May at 9:00 AM. It will begin at 5th Avenue, on to Buck Gully, walk along Big Corona and end up at the OASIS .

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) Coastal Dolphin Research Program
   (e) Rhine Channel Project Wrap Up
   (f) Newport Bay Sediment TMDL Update
   (g) Balboa Island Seawall Update
   (h) Copper Contamination in Marinas
   (i) Runoff Reduction Program – ET Controller Project Update
   (j) Senate Bill – SB 1447

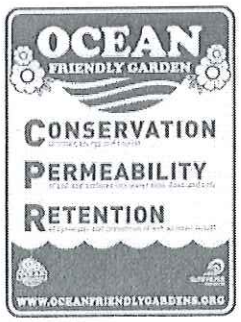
   Set Next Meeting Date
   The next meeting date was set for May10, 2012, at 3 PM in the Fire Conference Room.

7. **Adjournment**
   The meeting was adjourned at 4:30 pm.

_____
Chairwoman / Nancy Gardner

Ocean Friendly Gardens™ Yard Sign Criteria

An Ocean Friendly Garden (OFG) is a garden that applies CPR - Conservation, Permeability, and Retention© - to revive the health of our watersheds and oceans



An OFG Sign will be awarded to any garden that achieves the following criteria:

CONSERVATION

Turf Areas

☐ Climate-appropriate turf grass is limited to 20% of total square footage of the landscaped area.

- ☐ Turf grass is limited to only those areas where it serves a specific purpose (documented play area).
- ☐ Turf grass is maintained organically without synthetic fertilizers and never over-watered.
- ☐ Turf grass is kept away from the perimeter of the garden, where irrigation overspray is hard to control.

☐ Cool season turf grass is not in front yard gardens in areas receiving less than an average 44 inches of annual rainfall.

☐ Warm season turf grass, if present, is not over-seeded with cool season grass during winter months.

Irrigation

☐ No automatic irrigation is utilized OR:

☐ Irrigation system is in good repair (no breaks or leaks) with no visible signs from stains on nearby hard surfaces or erosion on vegetated surfaces from repeated overspray or runoff. (See maintenance details below)

☐ No spray irrigation of any kind is installed in areas less than 10 feet wide OR a total surface area of less than 100 square feet.

☐ Drip irrigation is ½ inch diameter tubing or larger -- utilizing either line source ("in-line") OR point source emitters ("on line").

- ☐ No 1/4" diameter irrigation tubing is present, except where needed for irrigating containers and raised beds. (See maintenance details below)

☐ Hoses have shut-off attachments.

☐ A weather-based irrigation controller (WBIC) or "smart" irrigation controller is installed OR

☐ Absent a WBIC, the irrigation controller has a rain shut-off installed.

Mulch

☐ A minimum of 2 inches to 4 inches of natural woodchip mulch is present in all planted and open areas.

☐ 50% or more of the woodchip mulch must be smaller than 1 inch in length or diameter.

☐ Small open mulch-free areas are permitted if they are designated for native bee or insect habitat.

Plants

☐ Plants are grouped according to plant community or hydrozones including:

- ☐ Similar sunlight exposure, water requirements, root depth, soil type, hardiness and temperature adaptation, and/or size at maturity.

☐ New gardens are planted with sufficient space between plants to accommodate mature growth without over-crowding, and to minimize pruning at maturity.

☐ Plants requiring regular shearing are not permitted, unless they are edible or produce edible fruit.

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☐ Plant material is 80% climate-appropriate unless it is edible or produces edible fruit. (Climate-appropriate plant material is defined as plant material with a Species Factor or Crop Co-efficient of 50% or less or is described by reliable local references as a "medium" water-using plant in the particular climate. In California, use www.water.ca.gov/wateruseefficiency/docs/ for Species Factors.)

☐ Local native plant material is utilized for at least 10% of the visible garden area, whether or not the other plant material is edible or produces edible fruit.

☐ No invasive species are present. Invasive species are defined as those listed on the local Invasive Plant Council website as invasive or on the "watch list". (General information at: http://plants.usda.gov/java/noxiousDriver, and in California http://www.cal-ipc.org.)

Water Features

☐ Water features may improve the habitat of the garden and are allowed within these guidelines:

- ☐ Water is recycled by the water feature.
- ☐ Open water features are covered at least 50% by vegetation,
- ☐ All water features are maintained without chemicals or additives that are toxic to fish.
- ☐ Overflow from the water feature drains into a vegetated area.

☐ Swimming pools and chemically treated water bodies are drained to sewer systems.

☐ Swimming pools must be covered to minimize evaporation when not in use.

PERMEABILITY

Healthy Living Soil

☐ Soil health is maintained organically without chemical additives.

☐ Soil health is maintained by the addition of compost, compost tea, and worm castings.

☐ Soil is not visible beneath a mulch layer, EXCEPT

- ☐ Areas 4 inches-12 inches around the crown of woody plants should remain un-mulched, and
- ☐ Areas 12 inches to 60 inches around the trunks of trees should remain un-mulched.
- ☐ These un-mulched areas should be minimized, but depends on the size of tree/plant crown.

Permeable Hardscape

☐ Walkways and patios are made permeable with

- ☐ Plants, mulch or decomposed granite in gaps between pavers or other hard surfaces; OR
- ☐ Materials that permit water to "flow-through," e.g., permeable concrete or asphalt.

☐ Impermeable surfaces or minimally permeable surfaces, such as permeable pavers or decomposed granite, are graded to direct excess surface flow of water into adjacent vegetated areas.

☐ Existing impermeable surfaces such as driveways or large patio areas have been altered to direct surface flow of water into adjacent vegetated areas or retention/detention devices.

RETENTION

Downspout Re-direct

☐ If gutters are installed, all visible downspouts are directed away from impermeable surfaces into vegetated areas, mulched areas or retention/detention devices.

- ☐ Rain chains and other devices to slow the fall of water are recommended as a replacement for downspouts.

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☐ If gutters are not installed, surfaces beneath the roof eaves are EITHER

- ☐ Vegetated with hearty plants that can withstand the beating; OR
- ☐ Covered with mulch, gravel or other sturdy and permeable materials, AND
- ☐ Hardscape surfaces beneath roof eaves are altered to create areas of permeability and direct surface flow of rainwater into vegetated or mulched areas or retention/detention devices.

☐ Drains carrying roof runoff or surface drain runoff from back yards or areas not visible to the street are EITHER:

- ☐ Directed into rainbarrels or cisterns at the downspouts to slow and reduce the flow of water into the drainage system, OR
- ☐ Disconnected from their overflow to street and re-directed into a vegetated or mulched area.

Sponge Gardens

☐ The visible garden area has been designed to capture as much of the rainfall from rooftops and other impermeable surfaces as possible.

☐ The flat areas on the property have been replaced with high and low contoured areas ("graded retention areas") to prevent rainfall from "sheeting" across the garden and off the property - helping to retain the first 1" of rainwater after a dry spell: AND/OR

☐ A dry creek bed or vegetated swale ("bioswale") captures the majority of the surface flow of downspout water and water from adjacent hard surfaces, creating sufficient area to slow, spread and sink it.

- ☐ Dry creek beds or vegetated swales are designed to hold at least 1" of rain from roof and adjacent hard surfaces, AND
- ☐ Rainfall in excess of 1" or the water-holding capacity of the garden, whichever is greater, is safely directed off-site after having been run through vegetated areas, including bioswales and creek beds, to remove pollutants and retain sediment.

☐ At least one tree or very large shrub has been planted at its proper distance from hard surfaces and buildings to help naturally store water for the entire garden.

Retention Devices

☐ Rainbarrels or above-ground cisterns are visible and are

- ☐ Installed properly in accordance with any prevailing local building standards or codes,
- ☐ Secured for safety purposes, and
- ☐ Overflow into vegetated or mulched areas, AND/OR

☐ Below surface retention areas and devices such as dry wells or cisterns are utilized to do the same.

Maintenance Details

1. Valve assemblies installed properly & in permeable areas (preferably surrounded by mulch or gravel).
2. Irrigation shut-off valves are easily identified.
3. Separate irrigation valves are utilized for each hydrozone (see "hydrozone" description in 4a below).
4. Back-flow prevention and pressure regulation is visible in or at the valve assembly.

Irrigation Details

1. Spray irrigation is matched precipitation, "multi-stream, multi-trajectory."
2. Spray irrigation requires anti-drain check valves to prevent low head drainage.
3. Spray irrigation heads of any kind are installed at least 24 inches from hard surfaces and buildings.

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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		12/19/11	12/27/11	1/3/12	1/9/12	1/17/12	1/25/12	1/30/12	2/8/12	2/14/12	2/21/12	3/1/12	3/7/12	3/12/12	3/20/12	3/27/12	4/2/12
NEWPORT BAY (Lower Bay)			RAIN				RAIN	RAIN					RAIN			RAIN	RAIN	
BNB09	43rd Street Beach	TC	170	20	100	<10	>23000	110	10	20	10	310	140	<10	40	750	6200	80
		FC	<10	<10	10	10	4400	<10	<10	<10	10	30	<10	<10	<10	80	220	<10
		ENT	46	32	<2	2	600	2	<2	44	50	38	2	4	2	6	10	2
BNB10	38th Street Beach	TC	10	<10	<10	100	40	20	<10	30	20	<10	<10	60	<10	710	4600	<10
		FC	10	<10	<10	10	<10	<10	<10	<10	30	<10	<10	<10	<10	80	200	<10
		ENT	10	6	10	6	62	2	<2	8	10	8	<2	8	4	22	<2	<2
BNB11	33rd Street Channel	TC	>340	20	280	80	100	10	80	<10	<10	>6200	180	120	80	690	3400	50
		FC	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	40	180	<10
		ENT	190	2	52	2	6	8	<2	<2	4	1000	42	10	20	2	2	24
BNB32	Lido Yacht Club Beach	TC	<10	<10	10	<10	<10	510	10	<10	<10	50	250	20	<10	>990	>18000	10
		FC	<10	<10	<10	<10	<10	180	<10	10	<10	40	<10	<10	<10	110	430	<10
		ENT	<2	<2	10	4	<2	4	4	<2	6	20	<2	4	6	4	30	<2
BNB07	Via Genoa Beach	TC	20	240	<10	<10	25400	570	<10	95	20	10	<10	10	<10	>900	>6200	10
		FC	<10	80	<10	<10	<10	<10	<10	20	<10	<10	10	<10	<10	60	270	<10
		ENT	2	<2	<2	2	<2	10	2	<2	4	2	<2	38	<2	4	10	<2
BNB35	Newport Blvd. Bridge	TC	>8600	20	6600	80	25600	>1100	190	3600	>580	20	>40000	>950	1030	>1000	>13000	>14000
		FC	710	<10	2200	<10	110	30	<10	130	40	<10	50	40	<10	130	160	420
		ENT	>120	8	1000	<2	800	10	28	255	56	<2	28	287	28	36	20	400
BNB12	Rhine Channel	TC	280	<10	110	10	100	620	200	40	30	<10	<10	<10	80	780	>16000	20
		FC	30	<10	<10	10	<10	20	<10	10	10	<10	<10	<10	<10	110	320	<10
		ENT	8	<2	8	<2	2	2	<2	<2	2	4	<2	<2	<2	<2	28	6
BNB14	19th Street Beach	TC	20	10	<10	<10	<10	>1710	<10	20	10	<10	10	<10	10	>940	>40000	10
		FC	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	10	<10	70	150	<10
		ENT	24	<2	<2	<2	<2	10	<2	28	<2	<2	<2	6	2	<2	20	<2
BNB15	15th Street Beach	TC	40	<10	230	10	20	>1510	<10	20	10	20	30	<10	10	4200	>26800	30
		FC	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	10	<10	<10	100	70	<10
		ENT	2	<2	6	<2	94	2	2	<2	10	8	2	<2	<2	<2	10	<2
BNB17	10th Street Beach	TC	100	<10	20	50	170	>1230	10	20	<10	10	100	30	<10	2800	>40000	<10
		FC	<10	<10	<10	10	20	20	<10	<10	<10	<10	<10	<10	<10	150	340	<10
		ENT	24	<2	<2	2	6	<2	<2	<2	<2	<2	<2	10	<2	<2	28	<2
BNB18	Alvarado/ Bay Isle Beach	TC	10	<10	<10	10	4000	1280	10	10	10	10	100	<10	10	5000	>40000	30
		FC	<10	<10	<10	<10	20	<10	<10	<10	<10	<10	30	<10	10	100	340	<10
		ENT	10	<2.	<2	66	20	6	2	<2	4	2	<2	20	6	10	20	6
BNB22	N Street Beach	TC	30	<10	40	20	30	150	10	<10	<10	20	30	30	10	440	>17000	10
		FC	<10	<10	20	10	10	20	<10	20	<10	<10	<10	10	<10	10	70	10
		ENT	4	<2	2	<2	4	<2	2	<2	<2	<2	2	<2	<2	<2	4	2
BNB31	Garnet Avenue Beach	TC	40	20	200	20	>780	>990	<10	10	<10	<10	530	<10	20	3600	>40000	40
		FC	<10	20	<10	10	20	20	<10	<10	<10	<10	30	<10	10	200	>580	10
		ENT	8	<2	<2	2000	10	4	<2	<2	6	<2	10	2	20	2	20	4
BNB03	Ruby Avenue Beach	TC	120	30	30	10	<10	>1500	<10	>150	<10	<10	220	10	30	4800	>21000	20
		FC	<10	<10	10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	220	110	<10
		ENT	<2	180	<2	20	4	2	<2	800	4	<2	<2	<2	<2	8	6	<2
BNB20	Sapphire Avenue Beach	TC	30	20	<10	10	<10	260	10	20	10	<10	60	<10	10	350	>29400	30
		FC	<10	<10	<10	<10	<10	10	,10	30	<10	<10	<10	<10	<10	40	140	<10
		ENT	2	6	<2	4	<2	2	<2	34	<2	<2	<2	<2	<2	<2	4	<2
BNB34	Grand Canal	TC	30	10	20	<10	>11000	930	<10	10	10	<10	<10	<10	10	4000	>20000	40
		FC	<10	10	20	<10	250	<10	<10	<10	<10	<10	<10	<10	<10	30	190	<10
		ENT	20	2	2	2	180	4	<2	<2	2	<2	<2	<2	4	2	10	<2
BNB21	Abalone Avenue Beach	TC	50	<10	10	10	260	280	<10	10	10	<10	80	10	<10	>1260	>38400	10
		FC	10	<10	10	<10	95	20	<10	<10	10	<10	10	10	<10	20	290	<10
		ENT	6	2	2	2	600	20	<2	2	46	<2	<2	2	<2	2	10	<2
BNB01	Park Avenue Beach	TC	20	<10	10	10	10	1100	<10	70	10	10	<10	40	20	5600	>40000	100
		FC	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	30	>220	<10
		ENT	<2	<2	2	2	4	2	<2	2	<2	<2	<2	<2	<2	<2	10	<2
BNB02	Onyx Avenue Beach	TC	170	40	10	60	10	990	<10	40	70	<10	10	20	20	4600	>11000	30
		FC	<10	<10	<10	<10	<10	<10	<10	<10	20	10	<10	10	<10	60	50	10
		ENT	<2	4	<2	<2	8	6	<2	20	6	<2	<2	2	<2	2	2	2
BNB29	Promontory Point Channel	TC	40	<10	<10	<10	20	490	220	130	70	<10	10	40	10	>1670	>7000	<10
		FC	<10	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	60	40	<10
		ENT	4	<2	<2	<2	<2	<2	4	<2	10	<2	<2	4	<2	<2	4	<2
BNB33	Bayside Drive Beach	TC	20	250	60	20	100	130	10	>240	95	<10	10	20	340	>1380	>40000	40
		FC	<10	10	20	10	40	10	<10	50	20	<10	10	10	350	20	>390	<10
		ENT	<2	6	2	2	6	<2	<2	26	10	<2	8	4	8	2	140	10
BNB23	Rocky Point Beach	TC	10	30	<10	10	10	190	20	40	<10	10	20	>10	<10	5800	>23200	20
		FC	<10	30	<10	<10	10	80	<10	<10	<10	<10	<10	<10	<10	30	30	<10
		ENT	<2	8	<2	<2	<2	<2	2	2	6	2	<2	<2	<2	<2	56	2

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.

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		12/19/11	12/27/11	1/3/12	1/9/12	1/17/12	1/25/12	1/30/12	2/8/12	2/14/12	2/21/12	3/1/12	3/7/12	3/12/12	3/20/12	3/27/12	4/2/12
NEWPORT BAY (Upper Bay)							RAIN	RAIN					RAIN			RAIN	RAIN	
BNB24	Newport Dunes - Middle	TC	140	20	100	20	>9800	>15000	220	30	20	110	16000	200	110	>40000	>40000	110
		FC	50	10	30	<10	170	170	30	<10	<10	30	180	80	40	1000	6800	40
		ENT	8	<2	6	6	214	110	20	4	36	6	42	70	3400	335	400	30
BNB24	Newport Dunes - West	TC	>190	20	50	30	>9600	>14000	>240	20	30	120	19000	150	220	>40000	>40000	130
		FC	80	<10	60	<10	130	150	20	<10	30	130	140	260	100	1000	3200	20
		ENT	20	20	10	4	42	160	22	10	2	20	52	60	110	218	800	28
BNB24	Newport Dunes - East	TC	50	40	240	230	>8400	>10000	180	20	80	380	9200	>630	50	>40000	>40000	>410
		FC	40	<10	160	100	970	140	30	20	60	280	400	360	30	2000	5600	220
		ENT	2	4	30	20	90	94	10	10	8	180	32	150	46	180	1000	74
BNB24	Newport Dunes - North	TC	>100	30	70	20	>6200	9600	>180	110	280	70	>10000	100	20	>40000	>40000	350
		FC	<10	10	<10	<10	140	80	70	10	80	10	590	40	<10	>1750	4400	140
		ENT	8	6	<2	8	20	66	10	26	10	22	68	40	10	130	600	190
BNB25	Vaughn's Launch	TC	NS	20	NS	50	NS	12000	80	60	NS	80	6000	40	NS	>18000	NS	NS
		FC	NS	<10	NS	<10	NS	150	30	10	NS	10	60	<10	NS	520	NS	NS
		ENT	NS	4	NS	42	NS	64	44	10	NS	20	24	8	NS	90	NS	NS
BNB26	Ski Zone	TC	NS	20	NS	60	NS	NS	NS	>80	NS	NS	NS	>740	NS	NS	NS	NS
		FC	NS	<10	NS	<10	NS	NS	NS	30	NS	NS	NS	120	NS	NS	NS	NS
		ENT	NS	28	NS	24	NS	NS	NS	20	NS	NS	NS	206	NS	NS	NS	NS
BNB28	North Star Beach	TC	270	<10	40	20	>40000	>22400	210	<10	140	40	2990	<10	40	>40000	>4000	4400
		FC	10	<10	<10	<10	840	50	20	<10	70	10	300	<10	20	750	3800	50
		ENT	20	<2	<2	10	382	48	2	4	20	22	22	8	20	52	400	6
BNB30	De Anza	TC	11	10	20	<10	>17000	2400	50	10	10	30	7400	<10	10	>18000	>40000	520
		FC	<10	<10	<10	<10	170	<10	10	20	<10	<10	110	<10	40	150	>1390	10
		ENT	4	<2	20	<2	92	24	2	<2	8	4	10	<2	10	20	190	2
BNB05	Bayshore Beach	TC	80	<10	40	<10	8600	2800	170	20	<10	<10	1410	50	<10	>15000	>40000	190
		FC	<10	10	<10	<10	40	50	<10	<10	<10	<10	30	<10	<10	220	>600	<10
		ENT	8	<2	4	4	36	30	<2	<2	4	8	10	<2	6	24	130	4
NEWPORT BAY TRIBUTARIES																		
CNBCD	San Diego Creek - Campus Dr.	TC	>8600	>680	>2200	>790	>1000	112000	>13000	>15000	>4100	>2800	>58000	>4000	>2500	>105000	>200000	>55000
		FC	220	40	100	50	18000	2000	>70	110	80	40	1250	20	40	>1430	3800	800
		ENT	70	32	94	42	10000	2400	94	>160	36	20	1000	78	78	2000	2800	202
CNBSA	Santa Ana Delhi Channel	TC	>7200	310	>2400	>61000	>104000	28000	>34000	>8300	>1360	>2400	>133000	>3300	>3200	>101000	>15000	>57000
		FC	220	50	100	80	3400	70	70	100	40	140	820	120	10	2000	420	310
		ENT	190	20	68	58	1000	200	120	180	80	80	234	130	170	800	2000	800
CNBBC	Big Canyon Creek	TC	>330	>220	>280	>720	>930	>660	>1280	>1470	>670	>410	>620	>670	>380	>1880	>780	>580
		FC	10	70	100	50	210	110	470	1080	290	150	60	300	<10	340	170	100
		ENT	>212	78	140	98	800	200	600	800	140	140	110	216	42	1000	400	78
CNBND	Backbay Drive Pipe	TC	>4000	>620	>410	>440	>150	>320	>600	>680	>1080	580	>1130	>910	>8000	>650	>160	>770
		FC	70	80	<10	130	30	20	10	<10	<10	<10	10	<10	80	10	20	150
		ENT	2000	5400	88	150	50	110	110	226	56	6	600	190	400	40	56	305
NEWPORT SLOUGH																		4/4/12
BNS01	Lancaster Street &	TC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	40
	61st Street	FC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10
		ENT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10
BNSO2	Lancaster Street &	TC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	20
	Canal Street	FC	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	<10
		ENT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	10

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.

OCSD Bacteriological [illegible]n Monitoring Program
Total Coliform (TC), Fecal Coliform (FC),
Enterococcus (ENT) Colony Forming Units/100 ml Sample

DATE		2/27	2/28	2/29	3/1	3/2	3/5	3/6	3/7	3/8	3/9	3/12	3/13	3/14	3/15	3/16	3/19	3/20	3/21	3/22	3/23	3/26	3/27	3/28	3/29	3/30	4/2	4/3	4/4	4/5	4/6	4/9
Location/Tide		RAIN	RAIN	RAIN	RAIN	RAIN											RAIN	RAIN				RAIN	RAIN	RAIN								
Bolsa Chica	TC	<18	18	<18	18	<18	<18	<18	<18	18	18	18	<18	<18	<18	<18	700	73	18	18	<18	<18	55	91	<18	18	<18	<18	<18	18	<18	<18
Beach	FC	<18	18	<18	18	<18	18	<18	<18	<18	<18	18	<18	<18	<18	<18	36	<18	<18	18	18	<18	<18	18	<18	<18	<18	<18	<18	<18	<18	<18
39N	ENT	4	10	6	2	<2	<2	4	2	4	10	18	<2	<2	<2	<2	20	<2	10	32	8	30	2	>400	2	2	2	<2	2	<2	<2	<2
Bolsa Chica	TC	<18	<18	18	<18	<18	<18	<18	91	36	18	<18	<18	<18	<18	18	760	36	36	55	91	55	91	18	<18	<18	18	<18	18	<18	<18	<18
Reserve	FC	<18	<18	18	36	<18	<18	18	55	<18	<18	<18	<18	18	<18	<18	18	<18	<18	<18	18	36	<18	<18	<18	<18	<18	<18	<18	18	<18	<18
33N	ENT	2	<2	8	10	2	6	20	18	6	36	12	8	4	8	40	12	2	4	8	44	32	4	>400	<2	4	2	2	2	8	2	2
Bluffs	TC	<18	<18	<18	<18	<18	36	18	<18	<18	<18	<18	<18	<18	18	<18	620	55	73	18	73	18	73	<18	<18	<18	18	<18	18	18	18	<18
27N	FC	18	18	<18	<18	<18	36	55	<18	18	<18	18	<18	<18	<18	18	18	<18	<18	<18	36	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18
	ENT	4	4	6	6	8	62	10	16	6	2	6	12	2	2	18	8	4	14	6	8	10	4	10	2	32	<2	6	6	12	62	<2
17th Street	TC	<18	18	18	<18	<18	110	18	<18	18	<18	18	<18	<18	<18	<18	440	91	310	18	<18	560	91	150	<18	18	<18	<18	18	18	18	36
21N	FC	<18	<18	<18	18	18	36	18	36	<18	36	18	<18	<18	18	<18	18	<18	330	<18	18	55	18	55	<18	<18	18	<18	<18	18	<18	18
	ENT	2	10	4	6	14	36	36	28	6	16	4	12	24	4	70	22	12	22	4	30	98	6	>400	2	10	24	2	4	2	8	6
Jacks Snack	TC	18	36	55	18	<18	150	73	55	55	18	55	<18	<18	36	1300	700	160	55	18	18	>1200	180	18	<18	<18	18	18	18	18	18	<18
Bar	FC	36	36	55	18	<18	55	<18	36	55	<18	18	<18	<18	<18	1300	36	<18	18	18	18	200	36	<18	<18	<18	<18	18	198	<18	<18	<18
15N	ENT	<2	<2	34	30	18	32	18	40	52	14	8	8	8	8	24	60	4	6	6	30	216	90	>400	12	20	20	20	10	6	8	6
Beach Blvd.	TC	18	18	150	18	<18	73	160	18	73	91	130	<18	18	18	18	620	160	130	36	<18	4200	>440	<18	<18	<18	36	<18	36	<18	<18	18
12N	FC	36	<18	91	<18	<18	110	<18	18	18	55	36	18	18	<18	18	<18	<18	<18	36	<18	110	55	<18	<18	<18	18	<18	<18	18	<18	<18
	ENT	6	4	54	6	20	16	112	36	14	10	28	2	18	4	4	34	20	16	<2	38	118	8	14	4	18	8	36	<2	28	14	8
SCE Plant	TC	18	<18	<18	18	55	<18	240	110	36	36	18	<18	<18	<18	<18	1000	110	36	55	18	>3000	>920	73	<18	<18	<18	55	18	55	<18	<18
9N	FC	<18	<18	18	<18	36	130	91	36	73	<18	<18	36	<18	<18	36	54	18	<18	18	<18	160	55	<18	<18	<18	18	55	<18	<18	<18	<18
	ENT	4	<2	26	16	12	8	82	62	<2	8	4	4	4	<2	4	28	8	4	<2	36	334	22	12	<2	6	10	2	20	<2	2	<2
Magnolia	TC	<18	<18	18	<18	4800	18	2600	>91	130	290	680	36	73	<18	<18	600	>350	91	<18	18	400	3000	380	<18	<18	55	450	18	18	<18	<18
Street	FC	<18	<18	18	<18	2400	36	2200	55	130	130	540	18	36	<18	36	36	18	<18	<18	36	160	200	110	<18	<18	18	220	91	<18	<18	<18
6N	ENT	4	2	30	4	80	8	>400	78	30	14	18	24	28	4	8	28	34	6	2	42	242	18	34	12	4	20	286	24	8	2	8
Brookhurst	TC	18	<18	<18	36	130	<18	250	200	150	73	36	<18	<18	18	36	820	220	73	36	<18	4000	CWS	>800	<18	<18	18	18	<18	18	73	200
3N	FC	<18	<18	18	<18	36	<18	200	55	55	36	18	36	<18	<18	36	18	<18	<18	18	36	240	460	18	<18	<18	18	36	<18	36	18	200
	ENT	2	10	10	12	12	4	348	56	2	<2	2	34	<2	8	14	24	30	6	4	32	>400	114	22	6	16	28	54	4	24	52	204
Santa Ana	TC	36	820	11000	270	55	36	36	36200	18	36	73	<18	<18	18	<18	740	110	36	36	130	>9400	7200	3600	110	73	<18	<18	<18	<18	36	91
River Mouth	FC	<18	270	180	160	110	<18	18	55	<18	<18	18	<18	<18	<18	18	<18	18	<18	<18	<18	200	480	330	<18	18	<18	18	<18	36	18	55
0	ENT	4	82	118	10	30	8	22	46	12	<2	12	4	10	6	8	44	6	<2	2	34	>400	378	68	6	16	<2	4	2	26	12	32
Orange	TC	73	5800	1000	55	91	<18	73	36	<18	<18	<18	<18	<18	18	<18	>1300	160	36	250	91	<18	91	<18	270	73	<18	<18	<18	18	18	18
Street	FC	36	180	130	91	18	18	36	36	36	<18	73	<18	36	<18	<18	54	18	<18	55	18	<18	<18	<18	18	<18	18	<18	<18	<18	<18	18
3S	ENT	18	200	36	78	12	2	28	12	12	6	26	8	2	6	4	32	100	<2	38	14	2	4	2	40	10	20	14	4	22	8	22
52nd/53rd	TC	36	860	760	220	73	18	36	36	18	<18	<18	18	18	18	18	>1100	91	18	<18	36	<18	91	<18	73	<18	36	<18	<18	36	36	18
Street	FC	<18	130	55	91	18	<18	<18	36	18	<18	18	<18	<18	<18	<18	55	<18	<18	<18	36	18	<18	<18	<18	<18	18	<18	<18	<18	<18	<18
6S	ENT	12	50	20	78	14	6	4	12	6	2	2	4	<2	<2	4	32	2	<2	<2	36	4	<2	<2	34	6	14	<2	2	12	4	2
38th Street	TC	<18	500	36	<18	18	<18	36	18	73	<18	160	<18	<18	<18	18	>1200	36	<18	18	18	18	110	<18	<18	<18	36	<18	<18	<18	18	<18
9S	FC	<18	18	<18	<18	<18	18	18	18	18	18	110	<18	<18	<18	<18	36	<18	<18	<18	<18	18	73	<18	18	<18	<18	<18	<18	<18	36	<18
	ENT	12	26	12	32	8	8	<2	14	24	2	8	4	2	6	2	16	4	<2	<2	16	<2	<2	<2	8	8	28	<2	<2	8	8	4
15th/16th	TC	<18	250	<18	<18	73	73	18	240	18	<18	<18	<18	<18	<18	<18	>1400	18	18	<18	<18	18	130	<18	<18	<18	55	<18	18	<18	<18	<18
Street	FC	<18	18	<18	<18	110	73	<18	160	18	<18	<18	<18	<18	<18	<18	91	<18	<18	<18	18	<18	18	<18	<18	<18	36	<18	<18	<18	18	<18
15S	ENT	<2	16	4	10	6	16	4	22	8	<2	<2	6	<2	14	2	32	<2	4	2	<2	6	<2	2	<2	6	60	2	<2	<2	10	2
Balboa Pier	TC	<18	110	<18	73	18	36	<18	<18	18	36	36	73	<18	73	36	>1000	36	36	18	<18	36	220	<18	<18	<18	<18	<18	<18	<18	18	<18
21S	FC	<18	<18	<18	<18	36	36	18	18	36	<18	36	73	<18	<18	36	<18	<18	18	<18	18	<18	55	<18	<18	<18	<18	18	18	<18	<18	<18
	ENT	4	4	<2	10	<2	<2	4	12	4	<2	36	6	<2	36	26	42	2	<2	4	4	2	4	<2	2	<2	6	<2	2	<2	10	6
The Wedge	TC	<18	<18	<18	<18	<18	36	<18	18	110	<18	<18	18	18	<18	<18	>1300	200	<18	<18	<18	36	400	<18	<18	<18	18	<18	<18	<18	<18	<18
27S	FC	<18	<18	<18	<18	18	130	18	<18	55	<18	<18	<18	<18	<18	<18	36	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	18	<18
	ENT	2	2	<2	4	2	30	4	16	36	<2	12	2	<2	10	4	34	4	<2	<2	<2	2	8	2	8	<2	14	<2	4	2	10	<2
Corona Del	TC	36	<18	18	36	18	73	55	18	18	18	18	36	55	250	18	220	330	<18	<18	<18	110	>1500	<18	55	18	400	55	<18	36	<18	<18
Mar Beach	FC	36	18	<18	<18	36	73	55	36	18	18	55	18	18	<18	<18	<18	110	36	36	18	<18	36	<18	36	36	<18	55	<18	18	<18	18
29S	ENT	<2	<2	2	4	2	<2	6	4	8	<2	22	<2	6	12	12	14	270	2	12	2	<2	4	<2	8	6	42	6	4	<2	2	6
Crystal Cove	TC	<18	<18	<18	<18	<18	<18	18	55	36	<18	<18	<18	<18	<18	<18	800	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	<18	18	<18
39S	FC	<18	<18	<18	<18	<18	<18	<18	18	<18	<18	<18	<18	<18	18	<18	36	18	<18	<18	<18	<18	<18	<18	<18	<18	18	<18	<18	18	<18	<18
	ENT	<2	4	<2	2	<2	4	<2	4	<2	<2	<2	<2	<2	<2	<2	4	<2	<2	<2	<2	6	<2	<2	<2	<2	4	2	2	<2	<2	2

SPRING TIDES

NEW DATA

SINGLE SAMPLE STANDARD VIOLATION

N/S NO SAMPLE / NO DATA

CWOS CONFULENT GROWTH WITHOUT SHEEN

CWS CONFULENT GROWTH WITH SHEEN

NEWPORT BEACH COASTAL BAY WATER QUALITY COMMITTEE

April 12, 2012

SURFRIDER FOUNDATION'S OCEAN FRIENDLY GARDENS PROGRAM

www.oceanfriendlygardens.org

OCEAN FRIENDLY GARDENS™

SURFRIDER FOUNDATION

G3 green gardens group

Concentrate On The First Flush

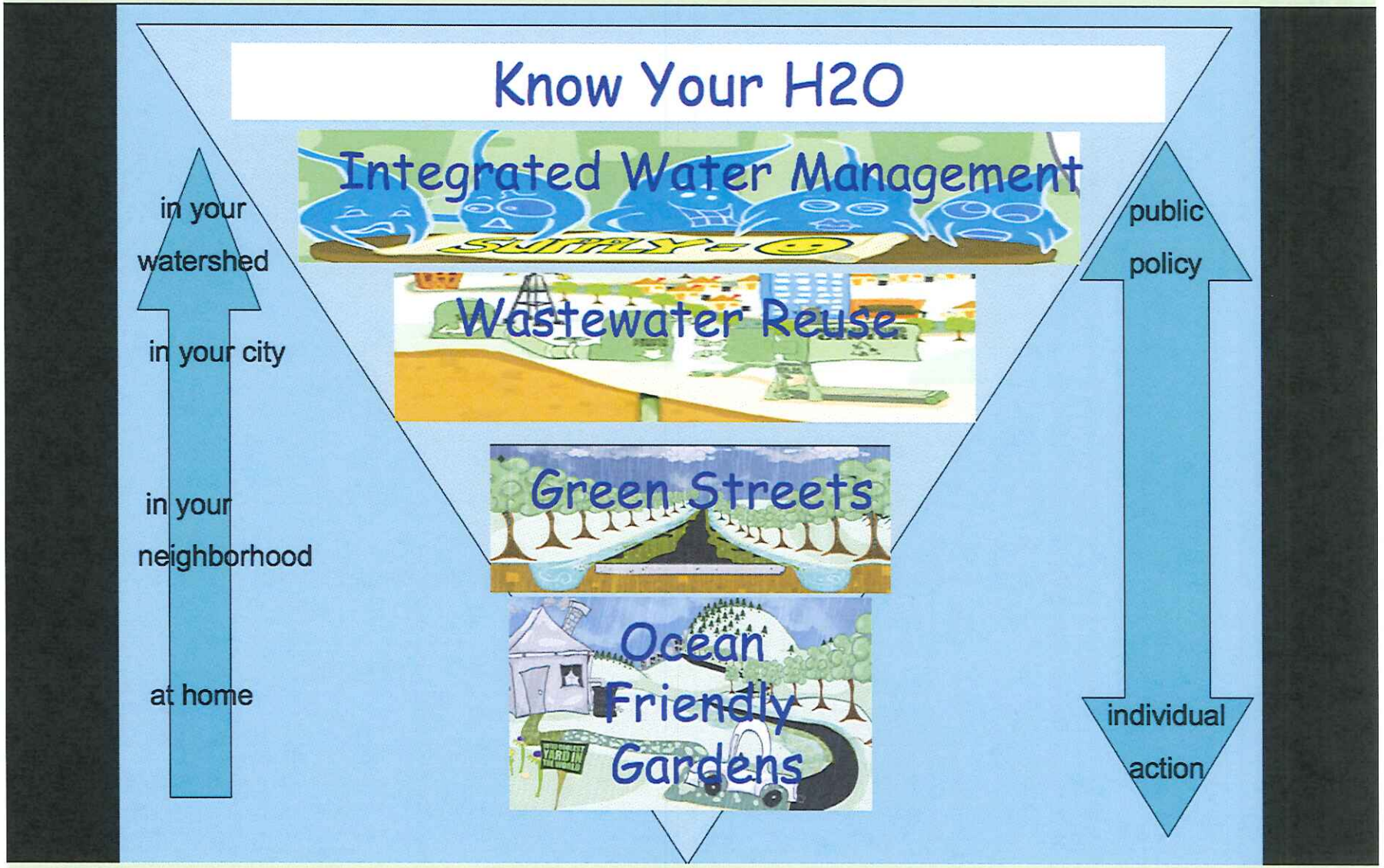
Capture or at Least Cleanse

First ¾ – 1 Inch

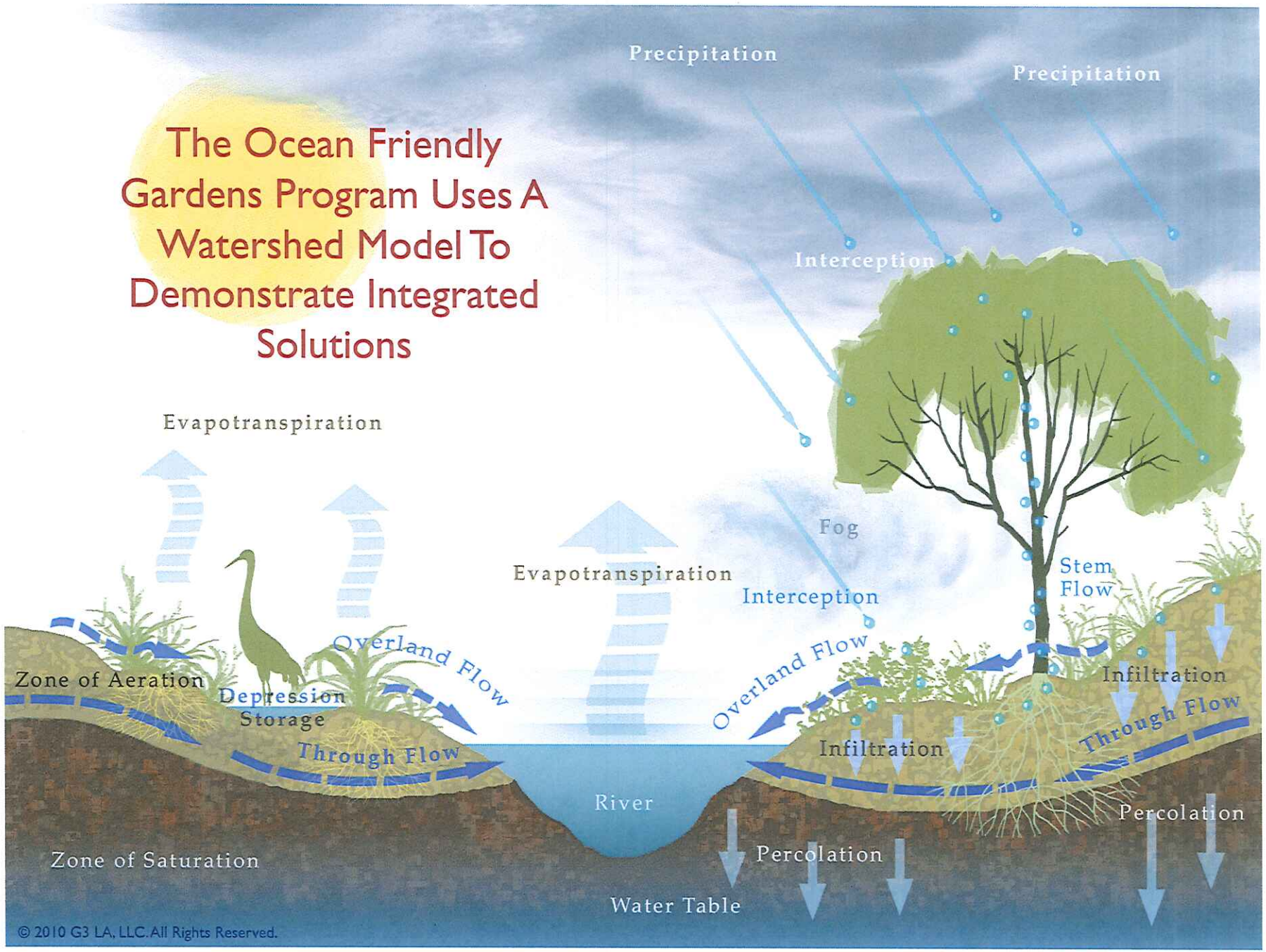
Of Rain After A Dry Period.

So We Developed This Program

OFG Is Part Of Surfrider's Know Your H2O Program



www.knowyourh2o.org


The Ocean Friendly Gardens Program Uses A Watershed Model To Demonstrate Integrated Solutions
Precipitation
Precipitation
Interception
Evapotranspiration
Fog
Evapotranspiration
Interception
Stem Flow
Overland Flow
Overland Flow
Zone of Aeration
Depression Storage
Through Flow
Infiltration
Through Flow
Infiltration
River
Percolation
Percolation
Zone of Saturation
Water Table
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NEWPORT BEACH COASTAL BAY WATER QUALITY COMMITTEE

April 12, 2012

SURFRIDER FOUNDATION'S OCEAN FRIENDLY GARDENS PROGRAM

www.oceanfriendlygardens.org

OCEAN FRIENDLY GARDENS™

SURFRIDER FOUNDATION

G3 green gardens group

SURFRIDER FOUNDATION

Since 1984, a grassroots environmental organization dedicated to the protection and enjoyment of oceans, waves and beaches through a powerful activist network (83 Chapters nationally)

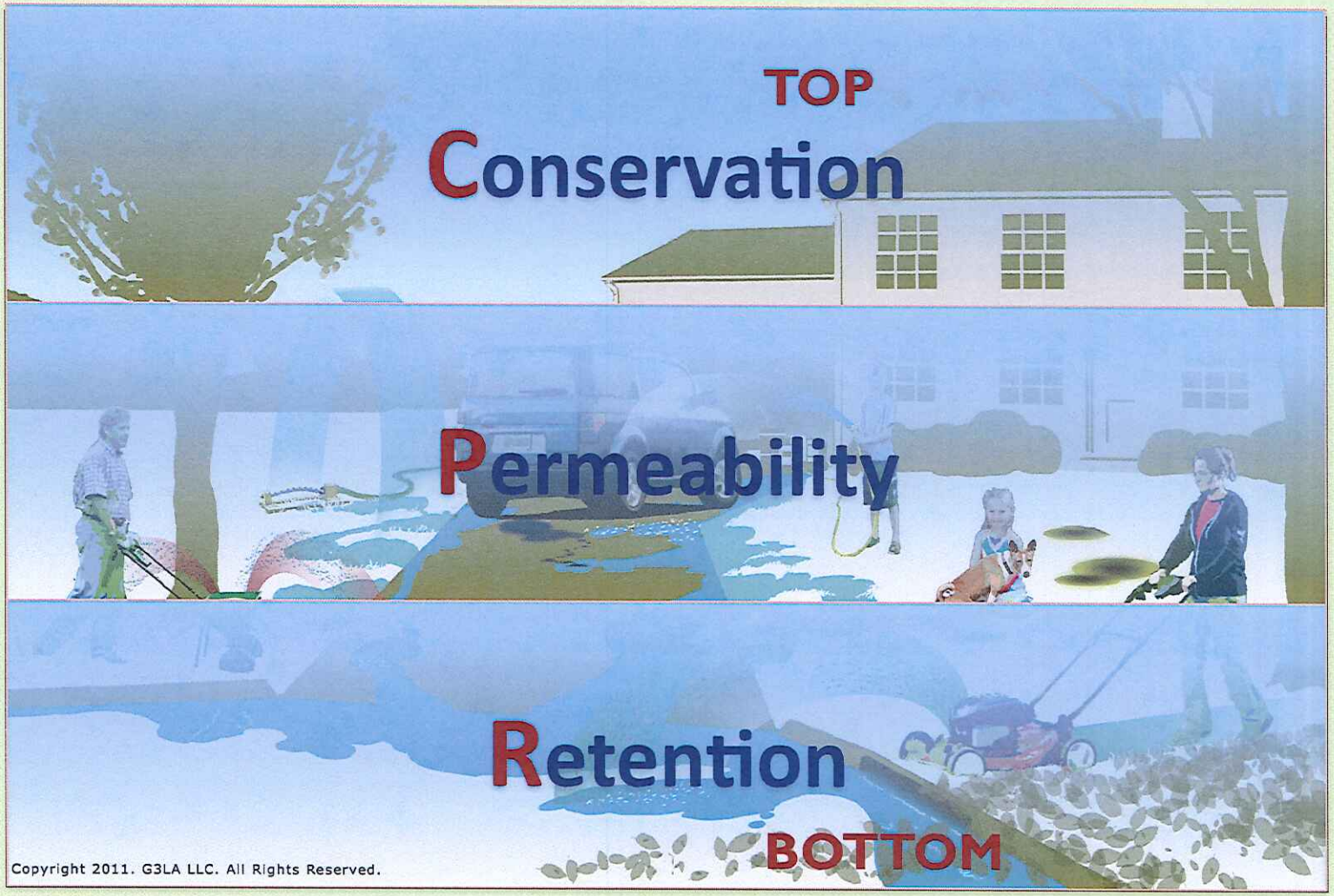
You Probably Know About Surfrider

From
Beach Cleanups

Water Quality
Testing and
Cool
Campaigns


Diamond
& Jewelry
Gallery

We Keep It Simple And Memorable



Think of Every Property As A **Mini-Watershed**

We Have Several Ways To Get Involved

Watershed Basics Class

Hands-On Workshops (HOWs)

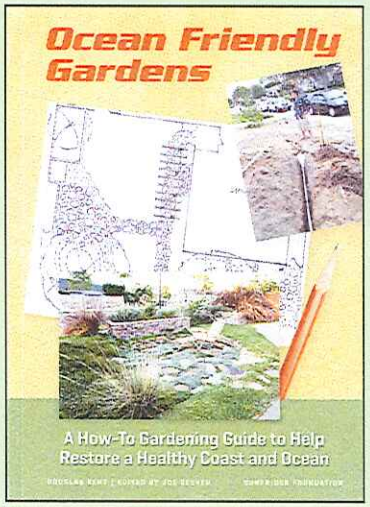
Garden Assistance Party

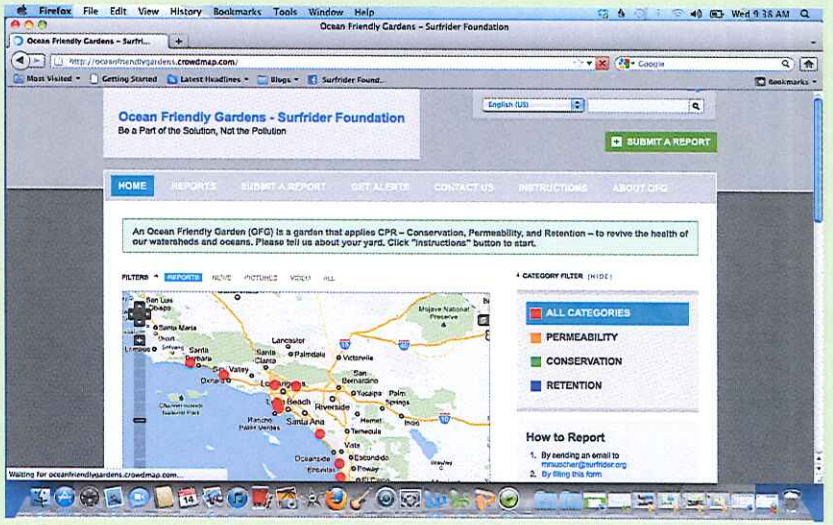
Lawn Patrol: Neighborhood Walk

OCEAN FRIENDLY GARDENS

SURFRIDER FOUNDATION

And Supporting Tools



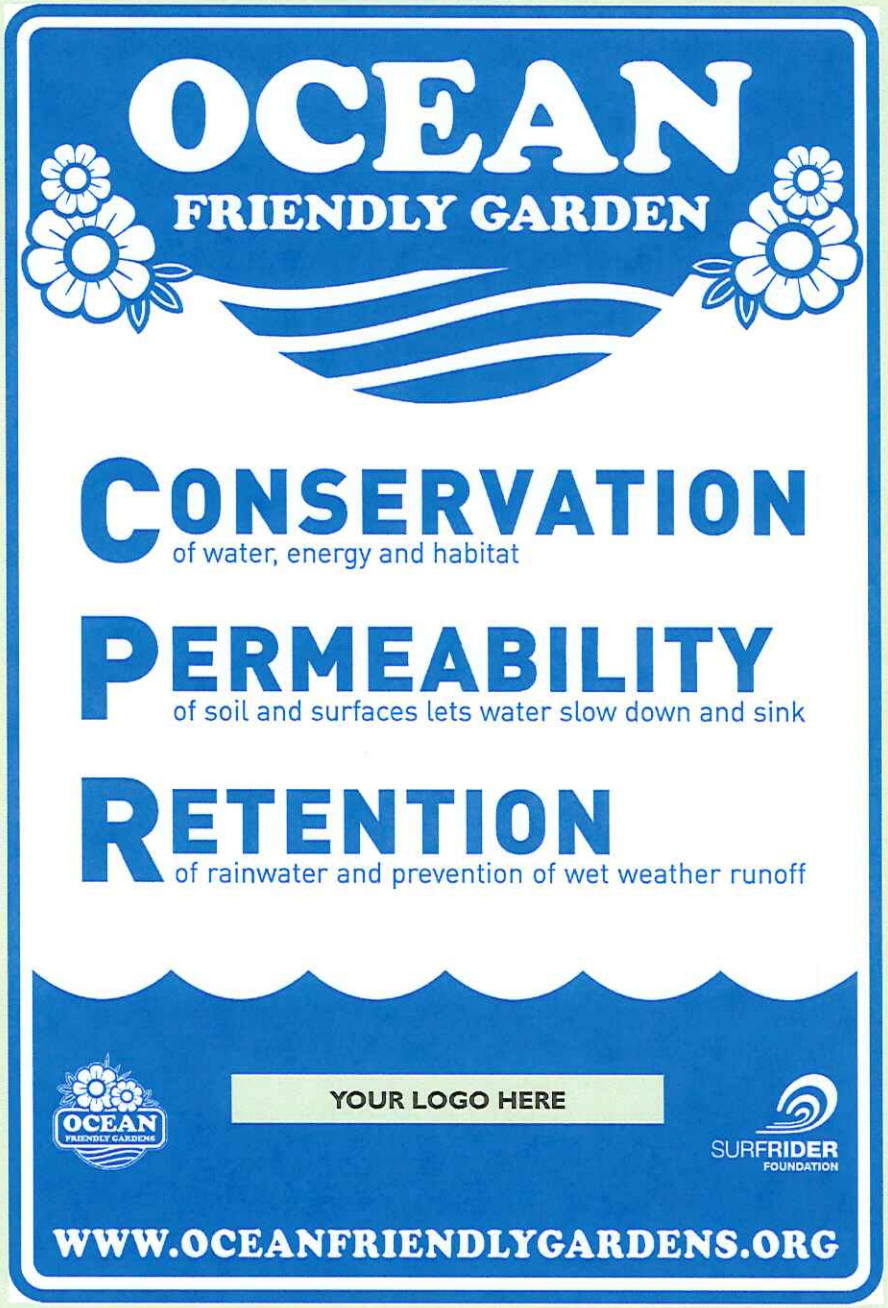



And Build Awareness About Runoff
Roof
Gutters
Unmulched Areas
Pools & Spas
Compacted Turf
Pathway
Sidewalk
Driveway
Street
What Are The Impermeable Surfaces?

This OFG Included Installation of Rain Capture & Infiltration


Building OFGs


August 2011:
ONLY TWO HAND-WATERING CYCLES!



The OFG Sign Criteria Sets Achievable And Inspiring Standards

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Surfrider Foundation-Newport Chapter
Co-Chairs, Ocean Friendly Gardens
Sub-Committee

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Pamela Berstler
Managing Member
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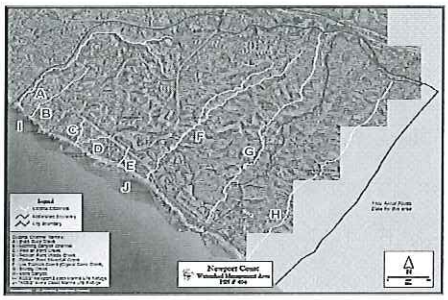
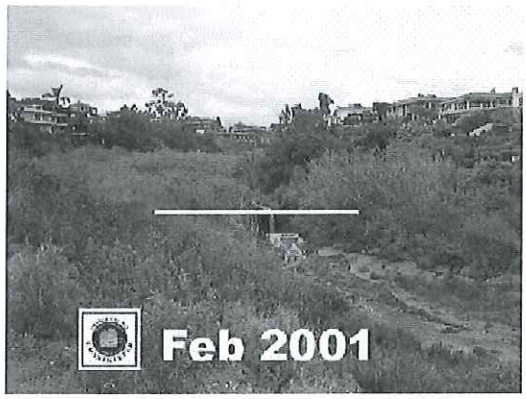
Newport Coast Watershed Program –Buck Gully Restoration



Buck Gully Pre-Restoration



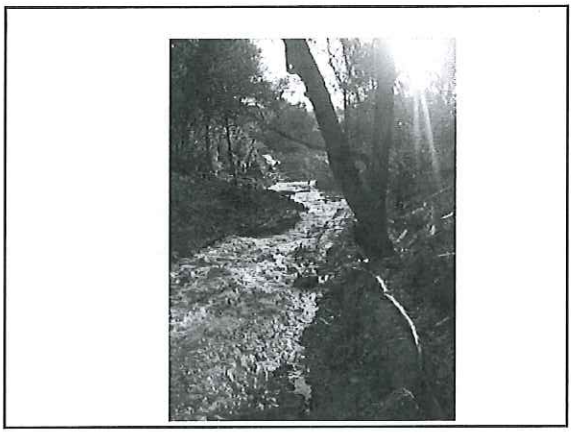
Headcut Water Fall

West Side Bank Erosion

1997 Slope Failure in Morning Canyon

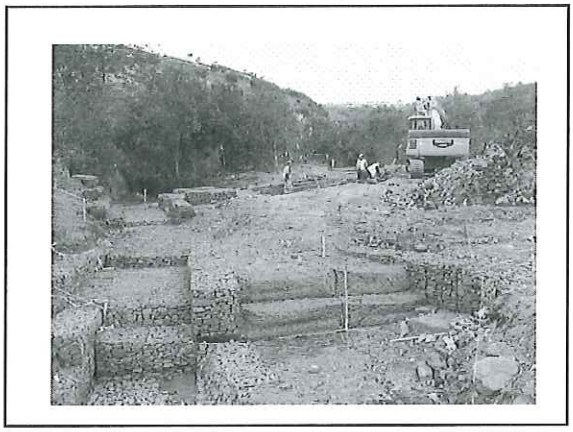
Fallen Trees

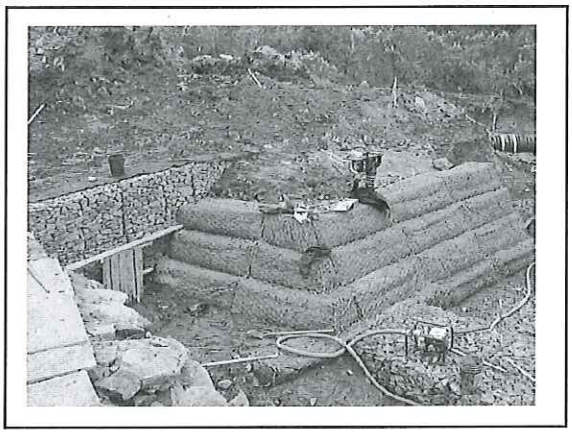
Collapsing Bank

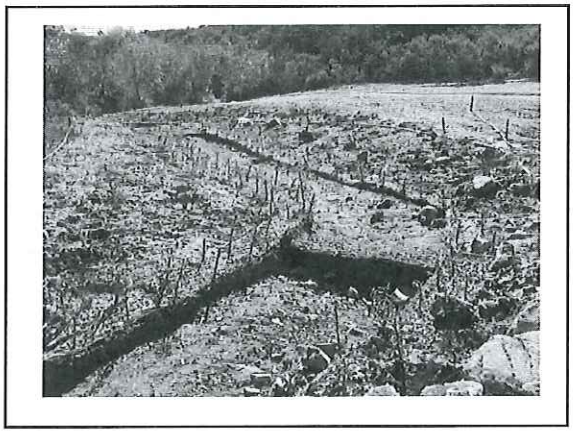


5th & Poppy Creek Crossing

Creek Crossing Failing





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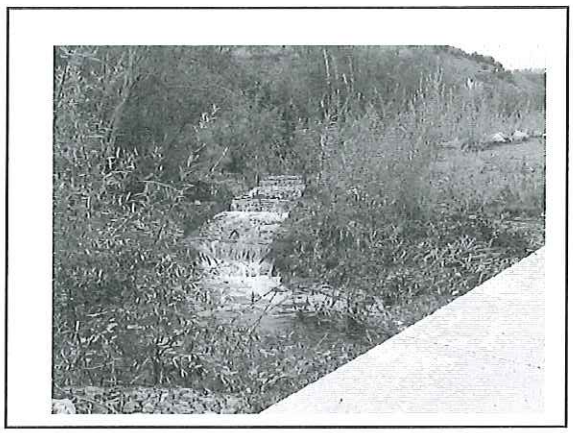
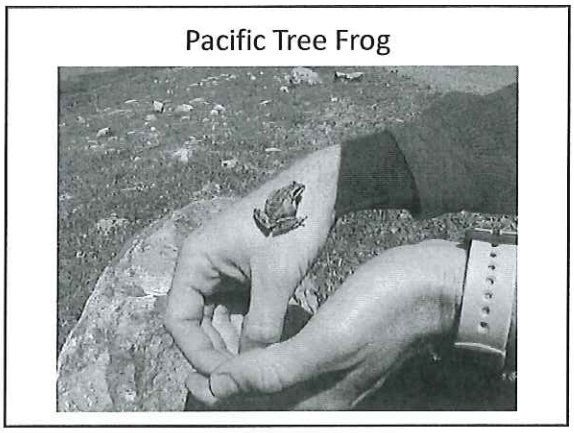
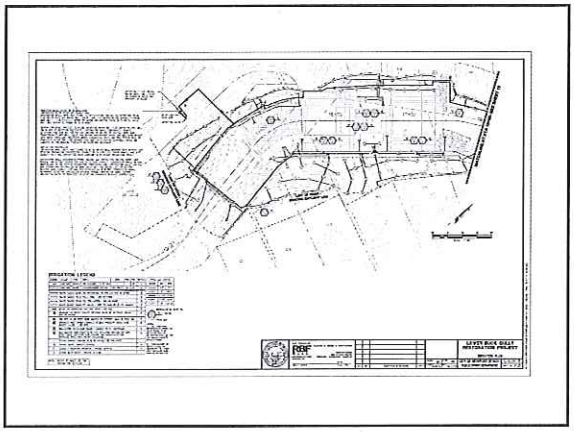
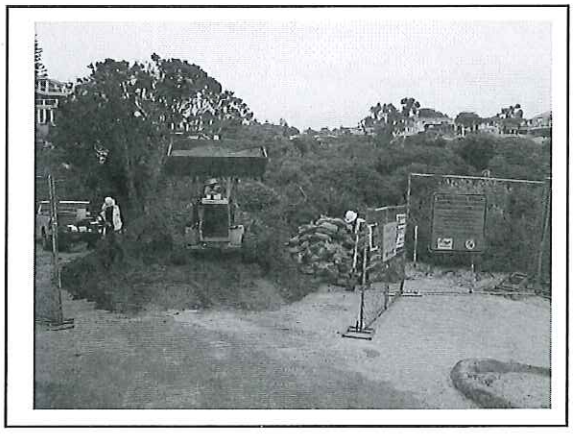


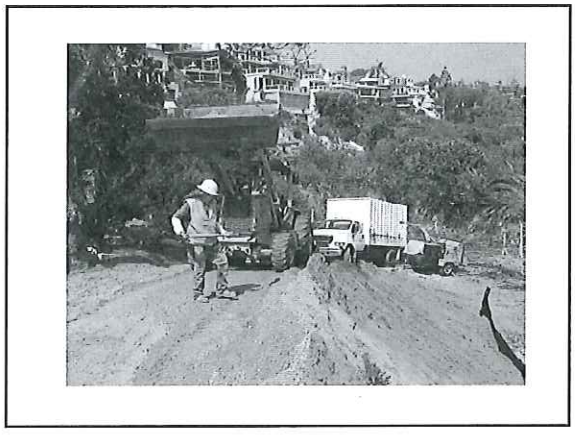
Pacific Tree Frog

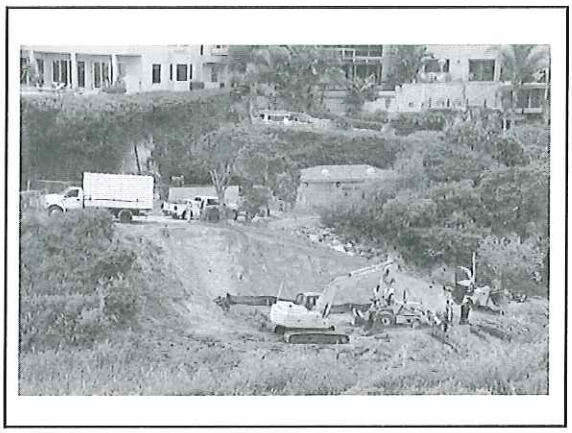


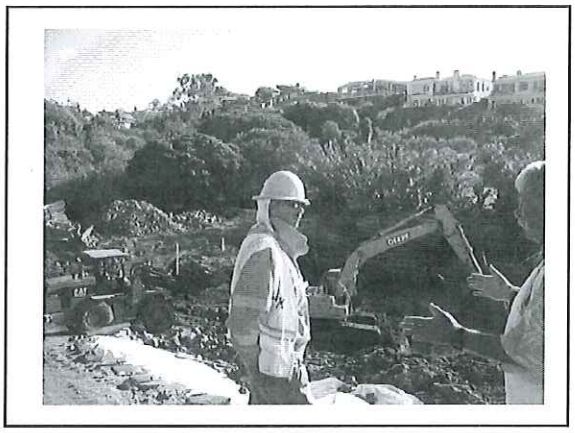
Back to Buck Gully





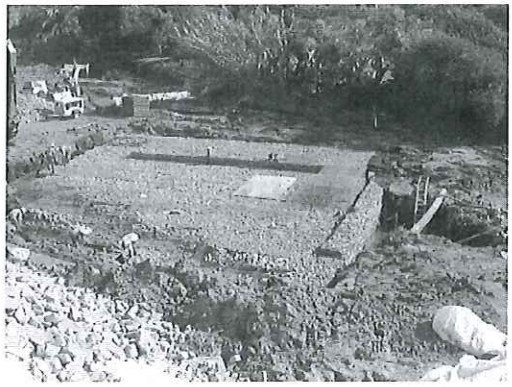




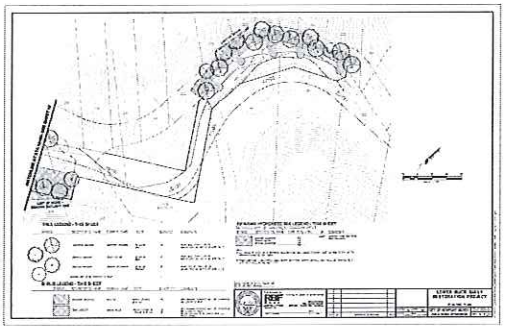


Gabion Baskets

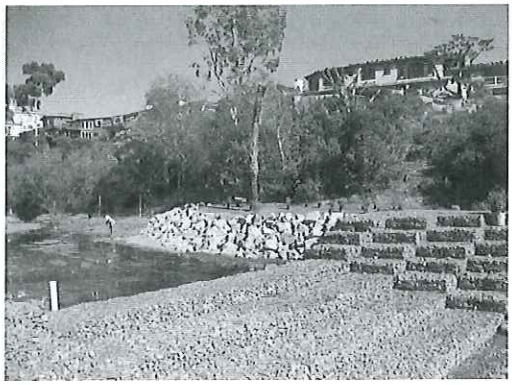
Drop Structure 3#

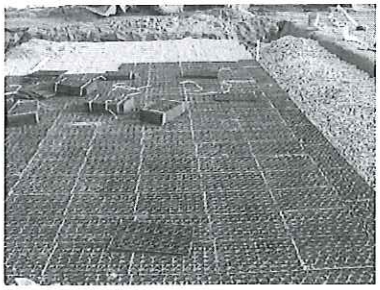


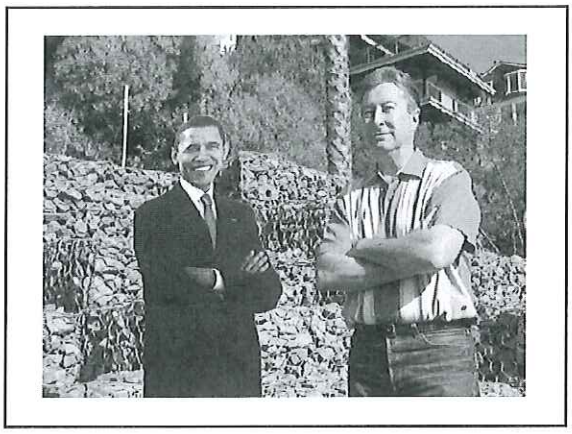
Buck Gully Restoration – Upper Reach

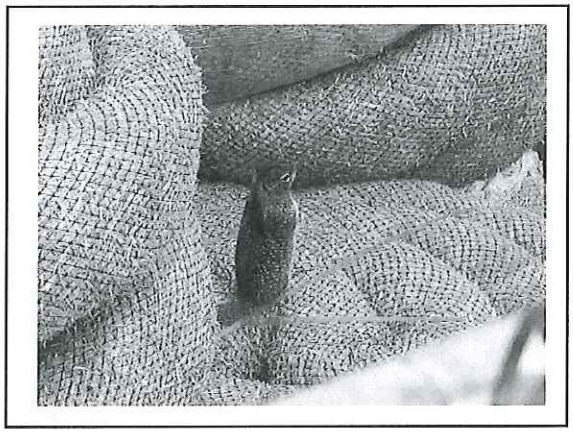


New Creek Bed

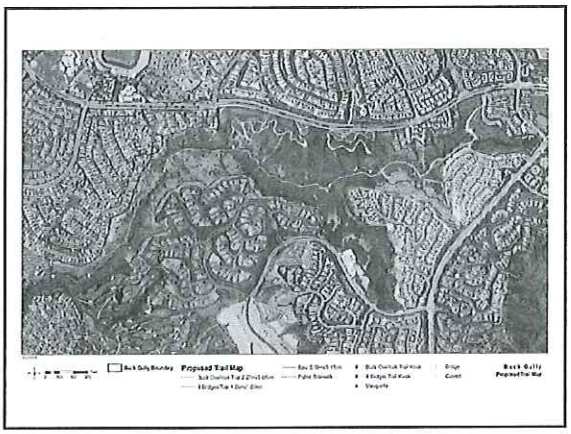








Cowbird Trap



Buck Gully Restoration - 2011