

APPENDIX A
Environmental Studies within the
Newport Bay and Newport Coast Watersheds

Source:
County of Orange 2003 Drainage Area Management Plan
Appendix D: Watershed Action Plans

ENVIRONMENTAL MATRIX FOR STUDIES WITHIN THE NEWPORT BAY WATERSHED

Record #	Program Name or Report Title	Sample Location	Start Date	End Date	flow conditions	entity	Bacteria	nutrients	metals	selenium	pesticides	toxicity	algae	dissolved oxygen	water chemistry	sediment	other	comments and program elements per TM#2 Assessment #1
1	Orange County NPDES/TMDL Program	W		ongoing	C	OC	1	1	1	1	1	1			1			Program Elements: WT, EP, EW
	Sediment TMDL	W	1985	ongoing	C	OC										1		Program Elements: WT, EP, EW
10	San Diego Creek Sediment Study PRISM Grant	W	2004	2005		OC					1							pending study (Karen); Program Elements: SI, UP
44	Channel Modification, Urbanization, and Channel Instability in Borrego Canyon Wash, Orange County, CA	W				UCLA										1		assessment of sediment changes in Borrego Canyon; Program Elements: SI, UP, WT
	Field Research Report for San Diego Channel Study	W	Oct-97	Oct-97	n/a	UCLA										1		channel erosion study in San Diego Creek Watershed, New profiles were added. Program Elements: UP
12	Newport Bay TMDL Dissolved Oxygen and Algae Distribution Study	UNB	May-05	Dec-05	C	OC & IRWD							1	1			1	oning (George & Amanda) Program Elements: UP, WT
13	Urban Nutrient BMP Evaluation	W	May-04	Oct-04	D	OC		1		1					1		1	includes TSS Program Elements: SI, NT
14	Nitrogen and Selenium Management Program	W	Sep-05	Jun-07		OC / SCCWRP		1		1					1		1	foodweb / tissue analysis Program Elements: SI, UP, NT, WT, EP
15	County of Orange Algae Monitoring Program	UNB	2001	ongoing	N/A	OC							1					Program Elements: UP, NT, WT, EP
42	Upper Newport Bay / San Diego Creek Watershed 205(j) Water Quality Planning Grant	W	1997	1999	C	OC					1	1		1	1			evaluation monitoring focusing on toxicity rather than chemical concentration measurements Program Elements: SI, UP
41	Upper Newport Bay Water Quality Enhancement Project, 319(h) Implementation Project		n/a	n/a	n/a	OC			1	1	1	1						Program Elements: EP
47	San Diego Creek Sediment Pesticide Study	SDC		March-07	D	OC					1					1		Program Elements: SI, UP, WT
40	Public Health Risk Assessment for the Newport Bay Watershed: n Recreational Contact and Microbiological Risk		n/a	n/a	n/a	OC/EOA	1											no sampling, discuss of implications of existing water quality information on human health Program Elements: WT, EP
9	2004 Annual Ocean and Bay Water Quality Report	NB	2000	ongoing	N/A	HCA	1											Program Elements: WT
31	City of Irvine Groundwater Discharge	W	Apr-04	ongoing	C	City		1	1	1					1		1	includes chlorine, diesel and gasoline Program Elements: WT
20	WDR for the U.S. Coast Guard for Maintenance Dredging in Lower Newport Bay	LNB		ongoing	C	US											1	monitor turbidity during dredging Program Elements: WT
47	Pesticide Source Analysis in the Upper Newport Bay Watershed Using Chiral Properties and Isotopic Fingerprinting	W		March-07	C	SCCWRP					1							Program Elements: SI
	Bight '03 - Coastal Ecology	W	7/14/2003	9/5/2003		SCCWRP			1		1	1				1	1	Pt Conception to US/MX border, organics, TOC Program Elements:
	Bight '03 - Sediment Toxicity (Coastal Ecology)					SCCWRP						1			1	1	1	fish tissue; Pt Conception-US/MX border Program Elements: SI, UP, WT
	Bight '98 - Coastal Ecology		Jul-98	Sep-98		SCCWRP						1			1			fish Program Elements: SI, UP, WT
2	Investigation of Metals Toxicity in San Diego Creek	SDC	Mar-02	Feb-03	C	SCCWRP			1	1	1	1			1			Program Elements: UP
3	Contributions of Organophosphorus pesticides from Residential Land Uses During Dry and Wet Weather	W	Dec-00	Dec-02	C	SCCWRP					1							Program Elements: SI
4	Nutrient Dynamics and Macroalgal Blooms: A Comparison of 5 Southern California Estuaries	UNB	Dec-01	Mar-03	C	SCCWRP & UCLA		1					1	1	1	1		Program Elements: UP

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37	Macroalgal nutrient dynamics in Upper Newport Bay	UNB	n/a	n/a		SCCWRP & UCLA		1					1			1		Program Elements: UP
43	The relative importance of sediment and water column supplies of nutrients to the growth and tissue nutrient content of green macroalga	UNB	n/a	n/a		SCCWRP & UCLA		1					1			1		Program Elements: UP
	Upper Newport Bay Sediment Nutrient Flux Study	UNB	Jun-05	Jun-05		SCCWRP		1								1		Program Elements: SI, UP
	Newport Bay Bird Egg Bioaccumulation Study					SCCWRP												Program Elements: UP
38	Comparison of Nutrient Inputs, Water Column Concentrations and Macroalgal Biomass in Upper Newport Bay, CA	UNB	n/a	n/a	C	SCCWRP		1					1					literature search Program Elements: SI, UP
39	DO Concentration as a Potential Indicator of Water Quality in NB	NB	n/a	n/a		SCCWRP							1	1				review of research and data Program Elements: UP, WT
5	Newport Bay Sediment Toxicity Studies	NB	9/19/2000	3/12/2002	c	SCCWRP			1			1				1	1	organics were tested Program Elements: SI, UP, NT, WT
6	Bioaccumulation of Contamination in Recreational and Forage Fishes in Newport Bay, CA in 2000-2002	NB	Nov-00	Sep-02	N/A	SCCWRP			1	1	1						1	all tests done on fish muscle tissue, DDT tested Program Elements: UP
29	Effects of Selenium Accumulation on Larval Rainbow Trout					SCCWRP				1		1						Program Elements: UP
45	SCCWRP Clapper Rail/UNB Food Web Study	UNB	?	2005	N/A	SCCWRP			1			1						Program Elements: UP
45	Investigation of bioaccumulative contaminant concentration in bird eggs, food items and sediment in the San Diego Creek/Newport Bay Watershed	W	2003	2006	N/A	SCCWRP				1	1							Program Elements: UP
45	Assessment of food web transfer of organochlorine compounds, selenium and trace metals in fishes in Newport Bay, California	NB		2007	N/A	SCCWRP/UCR/CSULB			1	1	1							Program Elements: UP
45	Analysis of Sediment and Biota Collected from SDC Basin No. 2 for Bioaccumulative Compounds	SDC		2005	N/A	SCCWRP			1	1	1							Program Elements: UP
34	Mitigation of Pesticide Runoff from Urban Environments, UC Coop	W	Oct-05	Mar-07	C	UC Coop						1						Program Elements: NT
32	Agricultural BMP Implementation	W	Sep-00	11/15/2003		UC Coop	1	1										Program Elements: UP, NT
33	Reduction of Pesticide Runoff from Nurseries, UCR	W	Jul-05	Dec-07	C	UCR						1						Program Elements: UP
35	Atmospheric Deposition, UCR	W	n/a	n/a		UCR						1						Program Elements: SI
45	Alex Home Associates Study of Se in Biota in Two Locations in San Diego Creek	SDC		2003	W	RWQCB				1								Program Elements: UP
	Channel Modification, Urbanization, and Channel Instability in Borrego Canyon Wash, Orange County, CA	W		2004		UCLA										1		analysis based on field measurements Program Elements: SI, UP, EW
46	Contributions of Marinas to fecal indicator bacteria impairment in lower Newport Bay, Southern California	W	Jul-02	Sept-03	N/A	UCI/Newport Beach	1											Evaluate vessel waste input to bay. Program Elements: SI
46	Dune Swimmer Shedding Study, Newport Dunes, NB, CA	UNB	2001	2003	N/A	UCI	1											Contribution of swimmers bacteria to bay Program Elements: WT

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46	Bacterial Source Study in Western Regions of LNB	LNB	June-04	Mar-06	N/A	UCI	1		1	1					1		1	Tested for salinity too. Program Elements: SI
11,46	Prop 13: Newport Bay Fecal Coliform Source Identification and management plan	NB			N/A	OC/UCI	1											Focuses on differentiating urban vs. natural bacteria for management Program Elements: SI, UP
45	UCB Study of Se and Heavy Metals in Water, Sediment and Biota in the San Joaquin Marsh	W	?	2005	D	UCB			1	1								Program Elements: UP
45	CSULA Study - Comparing Multiple Methods for Removal of Selenium in the San Diego Creek and Upper Newport Bay Watersheds	W		2006	N/A	CSULA				1								Program Elements: UP, NT
36	Fire Ant Monitoring Program, DPR	W	1999	2002	C	DPR					1							Program Elements: SI monitoring plan to be developed end of 2005 with monitoring beginning in early 2006
24	Natural Treatment System (NTS)	W		pending		IRWD												Program Elements: UP
23	Wetland Water Supply Project	W	1996	1998		IRWD		1	1	1			1	1	1		1	Program Elements: UP
22	401 Permit for Dredging in Sediment Basin 2&3	W	1998	ongoing		IRWD		1		1				1	1	1		monitor during dredging operations Program Elements: SI, WT
21	San Joaquin Marsh	W		ongoing	C	IRWD		1	1	1					1	1		monitor when taking water from SDC Program Elements: UP
45	IRWD Se Removal Demonstration Project	W		ongoing	N/A	IRWD				1								Program Elements: test for oil & grease
30	FRD and Santiago Canyon Landfills SWPPP	W	1993	ongoing	C	IWM		1	1						1		1	Program Elements: SI, WT
19	WDR for Caltrans Denitrification Facility, ETC Section 14	W		ongoing	C	Caltrans		1	1		1			1		1	1	Program Elements: SI, WT
28	Meixner & Hibbs Study "Sources of Selenium, Arsenic and Nutrients in the Newport Bay Watershed", 2004	W	Jun-02	Jan-04	C	university		1	1	1					1	1		atmospheric deposition, open space and shallow groundwater contributors Program Elements: SI, UP
27	Hibbs Study "Sources of Nutrients and Selenium in the San Diego Creek Watershed"	W	1999	2000		Defend the Bay		1		1	1			1	1		1	shallow groundwater sampling Program Elements: SI, UP
	State Mussel Watch Program	W	1977	1995	n/a	SWRCB			1		1	1						mussel tissue analyzed Program Elements: WT
	Toxic Substances Monitoring Program	W	1977	1995		SWRCB			1			1					1	organics; fish and aquatic life tests Program Elements: WT
25	Coastkeeper Santa Ana River Citizen Monitoring Program	W	2001	2003	C	Coastkeeper	1	1						1	1			Program Elements: SI, WT
26	Coastkeeper Orange County Coastal Watersheds Monitoring Program	W	2003	2005	C	Coastkeeper	1	1						1	1			Program Elements: SI, WT
16	WDR for El Modeno Gardens	W		ongoing	c	private		1	1	1	1				1		1	Program Elements: SI, WT
17	WDR for Hines Nurseries	W		ongoing	C	private		1	1	1	1				1		1	Program Elements: SI, WT
18	WDR for Bordier's Nursery	W		ongoing	C	private		1	1	1	1	1			1		1	Program Elements: SI, WT
	John Wayne Airport SWPPP	W	1997	ongoing	W	private			1	1					1		1	4 locations, 4 events; hydrocarbon, O&G Program Elements: SI, WT

