

Appendix 7 – Toxicity Data from Exception Applications

Acute Toxicity Data in Acute Toxicity Units (TUa)

Data submitted by Responsible Parties of this General Exception. Data is organized Upcoast/Downcoast. Where data is absent the symbol --- is used. California's Ocean Plan water quality objective for acute toxicity is 0.3 TUa. When available a summary of test results is given in parenthesis.

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	TRI 032	Discharge	City's main storm drain Stormwater Discharge	Grab	---	0 (ec50 >100%)	---	---	
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	TRI 031	Discharge	Pier Parking Lot Runoff Discharge	Grab	---	0 (ec50 >100%)	---	---	
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Discharge	Boat Launch	Grab	---	0 (ec50 >100%)	---	---	Stormwater runoff from Boat Launch
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Stream	Parker Creek	Grab	---	0 (ec50 >100%)	---	---	
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Stream	Mill Creek	Grab	---	0 (ec50 >100%)	---	---	
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Discharge	Home Beach Bluff Seep	Grab	---	0 (ec50 >100%)	---	---	Collected from seep
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Discharge	Pier Stormwater Runoff	Grab	---	0 (ec50 >100%)	---	---	

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Ocean receiving water	Bay	Grab	---	0 (ec50 >100%)	---	---	
5/22/06	7	King Range	County of Humboldt	KNG 097	Discharge	Gull Point	Grab	0 (ec50 N/A)	---	---	---	
5/22/06	7	King Range	County of Humboldt	KNG 097	Ocean receiving water	Gull Point	Grab	0 (ec50 N/A)	---	---	---	
5/22/06	7	King Range	County of Humboldt	KNG 097	Discharge	518 Sea Court	Grab	0 (ec50 N/A)	---	---	---	
5/22/06	7	King Range	County of Humboldt	KNG 097	Ocean receiving water	518 Sea Court	Grab	0 (ec50 N/A)	---	---	---	
4/24/06	11	Duxbury Reef	Marin County	DUX 009	Discharge	DRFresh Duxbury Reef	Grab	---	0 (LC50 >100%)	---	---	
4/24/2006	11	Duxbury Reef	Marin County	DUX 009	Ocean receiving water	DESea Duxbury Extension	Grab	---	0 (LC50 >100%)	---	---	
4/24/06	11	Duxbury Reef	Marin County	DUX 016	Discharge	PRHFresh Point Reyes Headlands	Grab	---	0 (LC50 >100%)	---	---	
4/24/06	11	Duxbury Reef	Marin County	DUX 016	Ocean receiving water	PRHSea Point Reyes Headlands	Grab	---	0 (LC50 >100%)	---	---	

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
4/24/06	11	Duxbury Reef	Marin County	DUX 009	Ocean receiving water	DRSea Duxbury Reef	Grab	---	0 (LC50 >100%)	---	---	
12/6/2007	9	James. V. Fitzgerald	San Mateo County	FIT 025	Discharge	San Mateo County 25D	Grab	1.0	---	---	---	Dilution series not performed
12/6/2007	9	James. V. Fitzgerald	San Mateo County	FIT 025	Ocean receiving water	San Mateo County 25R	Grab	1.0	---	---	---	Dilution series not performed
12/6/2007	9	James. V. Fitzgerald	San Mateo County	FIT 015	Discharge	San Mateo County 15D	Grab	1.0	---	---	---	Dilution series not performed
12/6/2007	9	James. V. Fitzgerald	San Mateo County	FIT 015	Ocean receiving water	San Mateo County 15R	Grab	1.0	---	---	---	Dilution series not performed
2/17/07	9	James. V. Fitzgerald	Airforce	---	Discharge	PP1 Pillar Pt stormdrain	Grab	0	---	---	---	
2/17/07	9	James. V. Fitzgerald	Airforce	---	Ocean receiving water	FMR1 Fitzgerald Marine Reserve	Grab	0	---	---	---	
3/6/06	19	Pacific Grove	City of Monterey		Discharge	WSAD (Wave st. & David Ave.) Stormwater (R1)	Grab	---	0 TUa*	---	---	*EPA Dilution protocol was not performed
3/6/06	19	Pacific Grove	City of Monterey		Discharge	TRDD (Terry St. & David Ave.) Stormwater (R1)	Grab	---	0 TUa*	---	---	*EPA Dilution protocol was not performed

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
3/6/06	19	Pacific Grove	City of Monterey	---	Discharge	PTDV (Prescott & Divisadero) Stormwater (R1)	Grab	---	0	---	---	EPA dilution protocol was not performed
3/6/06	19	Pacific Grove	City of Pacific Grove	---	Discharge	PGWB	Grab	---	1.0	---	---	EPA dilution protocol was not performed
3/6/06	19	Pacific Grove	City of Pacific Grove	---	Discharge	PGSW	Grab	---	1.0	---	---	EPA dilution protocol was not performed
3/6/06	19	Pacific Grove	City of Pacific Grove	---	Discharge	PGAF	Grab	---	<1.0	---	---	EPA dilution protocol was not performed
Storm season 2006 - 2007	34	Carmel Bay	Pebble Beach Company	CAR 202	Discharge	Stillwater Beach storm 1	Flow-weighted	< 1.0	---	---	---	
Storm season 2006 - 2007	34	Carmel Bay	Pebble Beach Company	CAR 202	Ocean receiving water	Stillwater Pier storm 1	Grab	< 1.0	---	---	---	
Storm season 2006 - 2007	34	Carmel Bay	Pebble Beach Company	CAR 202	Discharge	Stillwater Beach storm 2	Flow-weighted	< 1.0	---	---	---	
Storm season 2006 - 2007	4	Carmel Bay	Pebble Beach Company	CAR 202	Ocean receiving water	Stillwater Pier storm 2	Grab	< 1.0	---	---	---	
3/28/06	24	Laguna Point to Latigo Point	Caltrans	MUG 011	Discharge	Mug 011R Edge of Pavement	Time composite	0.18 (LC50 >100% with 98% survival)	---	---	---	Acute toxicity calculated from chronic tests

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
3/28/06	24	Laguna Point to Latigo Point	Caltrans	MUG 001	Ocean receiving water	Mug 011S receiving water	Grab		0.41 (LC50 >100% with 95% survival)	--	---	Acute toxicity calculated from chronic tests
4/15/06	24	Laguna Point to Latigo Point	Caltrans	MUG 011	Discharge	Mug 011R Edge of Pavement	Time composite	0.28 (LC50 >100% with 97% survival)	---	---	---	Acute toxicity calculated from chronic tests
4/15/06	24	Laguna Point to Latigo Point	Caltrans	MUG 011	Ocean receiving water	001SReceiving Water	Grab	0.35 (LC50 >100% with 93% survival)	---	---	---	Acute toxicity calculated from chronic tests
4/15/06	24	Laguna Point to Latigo Point	Caltrans	MUG 002	Ocean background water	001B 100 meters S. Background Seawater	Grab	0.63 (LC50 >100% with 88% survival)	---	---	---	Acute toxicity calculated from chronic tests
7/25/07	24	Laguna Point to Latigo Point	City of Malibu	MUG 232	Ocean receiving water	---	Grab	0 Survival	---	---	---	Dry weather sample
7/25/07	24	Laguna Point to Latigo Point	City of Malibu	MUG 430	Ocean receiving water	---	Grab	0 Survival	---	---	---	Dry weather sample
7/25/07	24	Laguna Point to Latigo Point	City of Malibu	MUG 375/386	Ocean receiving water	Paradise Cove	Grab	0 Survival	---	---	---	Dry weather sample
3/28/2006	33	Irvine Coast	Caltrans	IRV 002 & IRV 020	Discharge	Edge of Pavement	Time Composite	0.53 (LC50 >100% with 92% survival)	---	---	---	Acute toxicity calculated from chronic tests

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
4/14/06	33	Irvine Coast	Caltrans	IRV 020	Ocean receiving water	IR001S Caltrans Receiving	Grab	0.59 (LC50 >100% with 90% survival)	---	---	---	Acute toxicity calculated from chronic tests
4/14/2006	33	Irvine Coast	Caltrans	IRV 002 & IRV 020	Ocean background water	IR001B Background Seawater	Grab	0.5 (LC50 >100% with 93% survival)	---	---	---	Acute toxicity calculated from chronic tests
2/17/06	32	Robert E. Badham	City of Newport Beach	NEW 020	Ocean receiving water	BGO - Buck Gully Ocean Receiving Water	Composite	---	0.23 (EC50 >90% Calculated survival of 97.5%)	---	---	
2/27/2006	32	Robert E. Badham	City of Newport Beach	NEW 020	Stream - 303d listed with discharges upstream	BG1 - Buck Gully	Flow Weighted composite	---	0.41 (LC50 >70% with 95% survival)	---	---	
3/11/06	30	Heisler Park	City of Laguna Beach	HSL 013	Discharge	LB-2 - Storm Drain Flow	Composite	---	1.28 (IC50 78%)	---	0.99 * (IC50 >100%)	* Acute toxicity calculated from chronic tests
3/10/2006	30	Heisler Park	City of Laguna Beach	HSL 013	Discharge	LB-2 - Heisler Park S. End	---	---	1.54 (IC50 65%)	---	0.85 * (IC50 >100%)	* Acute toxicity calculated from chronic tests
3/11/2006	30	Heisler Park	City of Laguna Beach	HSL 013	Ocean background water	25 yds down coast of LB-2	---	0.8 (IC50 >100%)	0.23 (IC50 >100%)	0.41 germination (IC50 >100%)	---	
3/11/2006	30	Heisler Park	City of Laguna Beach	HSL 013	Ocean background water	25 yds up coast of LB-2	---	0.65 (IC50 >100%)	0.59 (IC50 >100%)	0.38 germination (IC50 >100%)	---	

Toxicity Data – Acute Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
3/11/06	30	Heisler Park	City of Laguna Beach	HSL 013	Ocean receiving water	LB-2 - Receiving (point zero)	Composite	0.65 (IC50 >100%)	0.59 (IC50 >100%)	0.59 (IC50 >100%)	---	
2/19/06	29	La Jolla	City of San Diego	SDL 157	Discharge	Paseo Grande La Jolla Preserve 01-S1	Flow weighted composite	---	1.54 (LC50 >65%, with survival 95% at 65% concentration)	---	---	
2/19/06	29	La Jolla	City of San Diego	SDL 165	Ocean Receiving	Paseo Grande La Jolla Preserve 01 MZ-D1	Flow weighted composite	---	1.33 (LC50 >75%, with survival 97.5% at 75% concentration)	---	---	
2/19/06	29	La Jolla	City of San Diego	SDL 062	Discharge	Paseo Dorado La Jolla Preserve 02-S2	Flow weighted composite	---	1.43 (LC50 >70% with 95% survival at 70% concentration)	---	---	
2/19/06	29	La Jolla	City of San Diego	SDL 165	Ocean receiving	Paseo Dorado La Jolla Preserve 02 MZ-D2	Flow weighted composite	---	1.33 (LC50 >75%, with survival 97.5% at 75% concentration)	---	---	
2/19/06	29	La Jolla	City of San Diego	---	Ocean background water	Offshore	---	---	1.33 (LC50 >75%, with survival 97.5% at 75% concentration)	---	---	
2/28/06	25	Northwest Santa Catalina Island	SCICO	---	Ocean receiving water	TH3-SW	Grab	0.69 Survival	---	---	---	

Toxicity Data – Acute Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
2/28/06	25	Northwest Santa Catalina Island	SCICO	---	Ocean receiving water	TH1-SW	Grab	0.69 Survival	---	---	---	
2/28/06	25	Northwest Santa Catalina Island	SCICO	---	Ocean receiving water	TH2-SW	Grab	0.69 Survival	---	---	---	
9/23/06	25	Northwest Santa Catalina Island	SCICO		Ocean receiving water	THMF Two Harbors mooring field	Grab	0.52 Survival	---	---	---	
2/28/06	28	Southeast Santa Catalina Island	Connolly-Pacific	---	Ocean receiving water	CP2-SW/OP-2SW	Grab	0.72 Survival	---	---	---	
2/28/06			Connolly-Pacific/SCICO	---	Ocean background water	Italian Gardens reference station IG1-SW	Grab	0.69 Survival	---	---	---	Site not in ASBS, but between ASBS 25 and 28

Toxicity Data – Acute Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
12/04/06	21	San Nicolas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI CG-W	Grab	0 Survival	---	---	---	Acute toxicity calculated from chronic tests
12/04/06	21	San Nicolas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI CG-W-D	Grab	0 Survival	---	---	---	Acute toxicity Calculated from chronic tests
12/04/06	21	San Nicolas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI-DB-W	Grab	0 Survival	---	---	---	Acute toxicity Calculated from chronic tests
12/04/06	21	San Nicolas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI-TB-W	Grab	0 Survival	---	---	---	Acute toxicity Calculated from chronic tests
12/04/06	21	San Nicolas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI-BWC-W	Grab	0 Survival	---	---	---	Acute toxicity Calculated from chronic tests
12/04/06	21	San Nicolas Island	U.S. Department of the Navy	---	Ocean reference water	SNI-CB-W	Grab	0 Survival	---	---	---	Acute toxicity Calculated from chronic tests
12/04/06	21	San Nicolas Island	U.S. Department of the Navy	---	Ocean reference water	SNI-DH-W	Grab	0 Survival	---	---	---	Acute toxicity Calculated from chronic tests

Toxicity Data – Acute Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUa (test results)	Mysid TUa (test results)	Kelp TUa (test results)	Echinoderm TUa (test results)	Notes
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Discharge	SCI-WA-W	Grab	0.35 (96% mean survival)	---	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-WWO-W	Grab	0 (100% mean survival)	---	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-REF-W	Grab	0 (100% mean survival)	---	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-NW-W	Grab	0 (100% mean survival)	---	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-HB-W	Grab	0.35(96% mean survival)	---	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-HB-W-D	Grab	0 (100% mean survival)	---	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean reference water	SCI-LP-W	Grab	0 (100% mean survival)	---	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean reference water	SCI-CR-W	Grab	0 (100% mean survival)	---	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean reference water	SCI-SP-W	Grab	0 (100% mean survival)	---	---	---	

Toxicity Data – Chronic Toxicity

Chronic Toxicity Data in Chronic Toxicity Units (TUc)

Data submitted by Responsible Parties of this General Exception. Data is organized Upcoast/Downcoast. Where data is absent (---) is used. California’s Ocean Plan water quality objective for critical life stage chronic toxicity is 1.0 TUc.

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUc	Mysid TUc	Kelp Germination TUc	Echinoderm Fertilization TUc	Mollusk Embryo Development TUc	Notes
4/15/06	8	Redwoods National Park	Caltrans	RED 034	Discharge	Wilson Cr. Bridge Caltrans Edge of pavement	Time composite	1 survival, 1 growth	---	1.63 germination, 1.63 growth	<1.63	---	EPA Dilution protocol was not performed
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	TRI 031	Discharge	Pier Parking Lot Runoff Discharge	Grab	1 survival, 1 growth	---	>16 germination	2	---	
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Discharge	Boat Launch	Grab	1 survival, 1 growth	---	2 germination	2	---	Stormwater runoff from Boat Launch
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Stream	Parker Creek	Grab	1 survival, 1 growth	---	1 germination	>32	---	
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Stream	Mill Creek	Grab	1 survival, 1 growth	---	1 germination	2	---	
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Seep	Home Beach	Grab	1 survival, 1 growth	---	1 germination	2	---	Collected from Seep
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Discharge	Pier Stormwater Runoff	Grab	1 survival, 1 growth	---	1 germination	32	---	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	---	Ocean receiving water	Bay	Grab	1 survival, 1 growth	---	4 germination	2	---	
5/23/06	6	Trinidad Head	Trinidad Rancheria & City of Trinidad	TRI 032	Discharge	City's main storm drain	Grab	1 survival, 1 growth	---	2 germination	2	---	
5/22/06	7	King Range	County of Humboldt	KNG 097	Discharge	Gull Point	Grab	1 survival, 1 growth	---	1 germination, 1 growth	---	---	
5/22/06	7	King Range	County of Humboldt	KNG 097	Ocean receiving water	Gull Point	Grab	1 survival, 1 growth	---	1 germination, 1 growth	---	---	
5/22/06	7	King Range	County of Humboldt	KNG 097	Discharge	518 Sea Court	Grab	1 survival, 1 growth	---	1 germination, 1 growth	---	---	
5/22/06	7	King Range	County of Humboldt	KNG 097	Ocean receiving water	518 Sea Court	Grab	1 survival, 1 growth	---	1 germination, 2 growth	---	---	
4/24/06	11	Duxbury Reef	Marin County	DUX 009	Discharge	DRFresh Duxbury Reef	Grab	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
4/24/06	11	Duxbury Reef	Marin County	DUX 009	Ocean receiving water	DRSea Duxbury Reef	Grab	1 survival, 1 growth	1 survival, 1 growth	2 growth, 4 survival	---	---	
4/24/06	11	Duxbury Reef	Marin County	DUX 009	Ocean receiving water	DESea Duxbury Extension	Grab	1 survival, 1 growth	1 survival, 1 growth	4 germination, 2 growth	---	---	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
4/24/06	11	Duxbury Reef	Marin County	DUX 016	Discharge	PRH Fresh Point Reyes Headlands	Grab	1 survival, 1 growth	1 survival, 1 growth	2 growth, 4 survival	<1.6	---	
4/24/06	11	Duxbury Reef	Marin County	DUX 016	Ocean receiving water	PRH Sea Point Reyes Headlands	Grab	1 survival, 2 growth	1 survival, 1 growth	2 germination, 1 growth	---	---	
12/6/2007	9	James. V. Fitzgerald	San Mateo County	FIT 015	Discharge	15D	Grab	1 survival, 1 growth	---	> 1 germination* --- growth	---	> 1*	*Dilution series not performed
12/6/2007	9	James. V. Fitzgerald	San Mateo County	FIT 015	Ocean receiving water	15R	Grab	1 survival, 1 growth	---	1 germination 1 growth	---	>1*	*Dilution series not performed
12/6/2007	9	James. V. Fitzgerald	San Mateo County	FIT 025	Discharge	25D	Grab	1 survival, >1 growth*	---	> 1 germination* >1 growth*	---	>1*	*Dilution series not performed
12/6/2007	9	James. V. Fitzgerald	San Mateo County	FIT 025	Ocean receiving water	25R	Grab	1 survival, 1 growth	---	1 germination 1 growth	---	>1*	*Dilution series not performed
4/16/06	9	James. V. Fitzgerald	Caltrans	FIT 08/09	Discharge	Edge of Pavement	Time composite	1 survival, 1 growth	---	1.6 germination, 1.6 growth	<1.63	---	
4/16/06	9	James. V. Fitzgerald	Caltrans	FIT 08/09	Ocean background water	0.7 miles S. Caltrans Background	Grab	1 survival, 1 growth	---	1 germination, 2 growth	1	---	
2/17/07	9	James. V. Fitzgerald	Airforce	---	Discharge	PP1 Pillar Pt stormdrain	Grab	1 survival, 1 growth	---	2 germination, 1 growth	---	2	
2/17/07	9	James. V. Fitzgerald	Airforce	--	Ocean receiving water	FMR1 Fitzgerald Marine Reserve	Grab	1 survival, 1 growth	---	1 germination, 1 growth	---	1	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
5/16/06	15	Año Nuevo Point	Caltrans	ANO 035	Discharge	8" CMP	Time composite	1 survival, 1 growth	---	<1.6 germination, <1.6 growth	1.6	---	
5/16/06	15	Año Nuevo Point	Caltrans	ANO 035	Ocean background water	Background Seawater 1 mile south	Grab	1 survival, 1 growth	---	2 germination, 2 growth	1	---	
3/6/06	19	Pacific Grove	City of Monterey	---	Discharge	WSAD (Wave st. & David Ave.) Stormwater (R1)	Grab	1 survival, 1 growth	1 survival, >1 growth	1 germination, 1 growth	---	---	EPA Dilution protocol not performed
3/6/06	19	Pacific Grove	City of Monterey	---	Discharge	TRDD (Terry St. & David Ave.) Stormwater (R1)	Grab	1 survival, 1 growth	>1 survival, >1 growth	>1 germination, 1 growth	---	---	EPA Dilution protocol not performed
3/6/06	19	Pacific Grove	City of Monterey	---	Discharge	PTDV (Prescott & Divisadero) Stormwater (R1)	Grab	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	EPA Dilution protocol not performed
3/6/06	19	Pacific Grove	City of Pacific Grove	---	Discharge	PGWB	Grab	1 survival, 1 growth	1 survival, >1 growth	>1 germination, 1 growth	---	---	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
3/6/06	19	Pacific Grove	City of Pacific Grove	---	Discharge	PGSW	Grab	1 survival, 1 growth	1 survival, >1 growth	>1 germination 1 growth	---	---	
3/6/06	19	Pacific Grove	City of Pacific Grove	---	Discharge	PGAF	Grab	1 survival, 1 growth	1 survival, >1 growth	>1 germination, 1 growth	---	---	
													Discharger not submitted
Storm season 05/06	34	Carmel Bay	Pebble Beach Company	CAR 202	Discharge	Stillwater Beach	Grab	1 survival, 1 growth	2 survival	1 germination, 1 growth	2	---	
Storm season 05/06	34	Carmel Bay	Pebble Beach Company	CAR 202	Ocean receiving water	Stillwater Pier	Grab	1 survival, <1 growth	1 survival	2 germination, 1 growth	1	---	
Storm season 06/07	34	Carmel Bay	Pebble Beach Company	CAR 202	Discharge	Stillwater Beach	Flow-weighted	1 survival, 1 growth	---	16 germination 1 growth	---	4 (<i>Haliotis sp.</i>)	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
Storm season 06/07	34	Carmel Bay	Pebble Beach Company	CAR 202	Ocean receiving water	Stillwater Pier	Grab	1 survival, 1 growth	---	8 germination 4 growth	---	1 (<i>Haliotis sp.</i>)	
Storm season 06/07	34	Carmel Bay	Pebble Beach Company	CAR 202	Discharge	Stillwater Beach storm 2	Flow-weighted	1 survival 1 growth	---	4 germination 1 growth	---	2 (<i>Haliotis sp.</i>)	
Storm season 06/07	34	Carmel Bay	Pebble Beach Company	CAR 202	Ocean receiving water	Stillwater Pier storm 2	Grab	1 survival 1 growth	---	4 germination 2 growth	---	1 (<i>Haliotis sp.</i>)	
3/28/06	24	Laguna Point to Latigo Point	Caltrans	MUG 011	Discharge	Mug001R Edge of Pavement	Time composite	1 survival, 1 growth	1 survival, 1 growth	>16 germination, 2 growth	---	---	
3/28/06	24	Laguna Point to Latigo Point	Caltrans	MUG 011	Ocean receiving water	Mug001S Caltrans Receiving	Grab	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
4/14/06	24	Laguna Point to Latigo Point	Caltrans	MUG 011	Discharge	Mug001R Edge of Pavement	Time composite	1 survival, 1 growth	2 survival, 2 growth	1.8 germination, 1.8 growth	---	---	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
4/14/06	24	Laguna Point to Latigo Point	Caltrans	MUG 011	Ocean receiving water	Mug001S Caltrans Receiving	Grab	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
4/14/06	24	Laguna Point to Latigo Point	Caltrans	MUG 002	Ocean background water	Mug001B Caltrans Background 100 meters S.	Grab	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
4/15/06	24	Laguna Point to Latigo Point	LA County	MUG 011	Discharge	Storm Drain	Time composite	1 survival, 1 growth	2 survival, 2 growth	1.8 germination, 1.8 growth	---	---	
4/15/06	24	Laguna Point to Latigo Point	LA County	MUG 011	Ocean receiving water	---	Grab	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	Dry weather sample
7/25/07	24	Laguna Point to Latigo Point	City of Malibu	MUG 232	Ocean receiving water	---	Grab	1 survival, 1 growth	---	1 germination, 1 growth	1.0	---	Dry weather sample
7/25/07	24	Laguna Point to Latigo Point	City of Malibu	MUG 430	Ocean receiving water	---	Grab	1 survival, 1 growth	---	1 germination, 1 growth	2.0	---	Dry weather sample

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
7/25/07	24	Laguna Point to Latigo Point	City of Malibu	MUG 375/386	Ocean Receiving Water	Paradise Cove	Grab	1 survival, 1 growth	---	1 germination, 1 growth	1.0	---	Dry weather sample
4/14/06	33	Irvine Coast	Caltrans	IRV 020	Discharge	IRV002R Edge of Pavement	Time composite	1 survival, 1 growth	2 survival, 8 growth	2 germination, 2 growth	---	---	
4/14/06	33	Irvine Coast	Caltrans	IRV 020	Ocean receiving water	IRV001S Caltrans Receiving	Grab	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
4/14/06	33	Irvine Coast	Caltrans	IRV 020	Ocean background water	IRV001B 60 meters downcoast Caltrans Background	Grab	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
2/17/06	32	Robert E. Badham	City of Newport Beach	NEW 020	Ocean receiving water	BGO - Buck Gully Ocean Receiving Water	Flow Weighted	---	1.18 survival, 1.18 growth	4 germination, 1.33 growth	1.33	---	
3/10/2006	30	Heisler Park	City of Laguna Beach	HSL 013	Discharge	LB-2 - Heisler Park S. End	Composite	1 survival, 1 growth	2 survival, 2 growth	---	1 development, 2 fertilization	---	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
3/11/2006	30	Heisler Park	City of Laguna Beach	HSL 013	Discharge	LB-2 - Heisler Park S. End	Composite	1 survival, 1 growth	2 survival, >16 growth	---	2 development 2 fertilization	---	
3/11/2006	30	Heisler Park	City of Laguna Beach	HSL 013	Ocean background water	25 yds down coast of LB-2	---	1 survival, >1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
3/11/2006	30	Heisler Park	City of Laguna Beach	HSL 013	Ocean background water	25 yds up coast of LB-2	---	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
3/11/2006	30	Heisler Park	City of Laguna Beach	HSL 013	Ocean receiving water	Point zero	---	1 survival, 1 growth	1 survival, 1 growth	1 germination, 1 growth	---	---	
2/19/06	29	La Jolla	City of San Diego	SDL 165	Discharge	Paseo Dorado La Jolla Preserve 02-S2	Flow weighted composite	---	1.54 survival, 1.54 growth	1.67 germination, >16 growth	2	---	
2/19/06	29	La Jolla	City of San Diego	SDL 062	Ocean receiving water	Paseo Dorado La Jolla Preserve 02 MZ-D2	Flow weighted composite	---	1.33 survival, 1.33 growth	16 germination, 4 growth	1	---	
2/19/06	29	La Jolla	City of San Diego	---	Ocean background water	Offshore	Flow weighted composite	---	1.33 survival, 1.33 growth	1 germination, 1 growth	1	---	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
2/28/06	25	Northwest Santa Catalina Island	Santa Catalina Island Company	Isthmus Cove	Discharge	TH1-FW	Grab	---	---	---	---	---	
2/28/06	25	Northwest Santa Catalina Island	Santa Catalina Island Company	Isthmus Cove	Ocean receiving water	TH1-SW	Grab	1 survival 1 growth		---	1	---	
2/28/06	25	Northwest Santa Catalina Island	Santa Catalina Island Company	Isthmus Cove	Discharge	TH2-FW	Grab	---	---	---	---	---	
2/28/06	25	Northwest Santa Catalina Island	Santa Catalina Island Company	Isthmus Cove	Ocean receiving water	TH2-SW	Grab	1 survival 1 growth	---	---	16	---	
2/28/06	25	Northwest Santa Catalina Island	Santa Catalina Island Company	Isthmus Cove	Discharge	TH3-FW	Grab	---	---	---	---	---	
2/28/06	25	Northwest Santa Catalina Island	Santa Catalina Island Company	Isthmus Cove	Ocean receiving water	TH3-SW	Grab	1 survival, 1 growth	---	---	>16	---	
9/23/06	25	Northwest Santa Catalina Island	Santa Catalina Island Company	Isthmus Cove	Ocean receiving water	THMF-Mooring Field	Grab	1 survival, 1 growth	---	1 germination 1 growth	---	---	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
10/07/06	25	Northwest Santa Catalina Island	Santa Catalina Island Company	Isthmus Cove	Ocean receiving water	THMF Mooring Field	Grab	1 survival, 4 growth	---	1 germination 1 growth	1	---	
2/28/06	28	Southeast Santa Catalina Island	Connolly-Pacific		Discharge	CP1-FW Outfall#1	Grab	---	---	---	---	---	
2/28/06	28	Southeast Santa Catalina Island	Connolly-Pacific		Ocean receiving water	CP1-SW	Grab	---	---	---	---	---	
2/28/06	28	Southeast Santa Catalina Island	Connolly-Pacific		Ocean receiving water	CP2-SW	Grab	1 survival 1 growth	---	---	1	---	
2/28/06			Connolly-Pacific/SCICO	---	Stream	Italian Gardens reference station IG1-FW	Grab	1 survival	---	---	---	---	Site not in ASBS, but between ASBS 25 and 28
2/28/06			Connolly-Pacific/SCICO	---	Ocean background water	Italian Gardens reference station IG1-SW	Grab	1 survival 1 growth	---	---	1	---	Site not in ASBS, but between ASBS 25 and 28

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest Drainage ID No.	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Mollusk Embryo Development TUC	Notes
12/4/06	21	San Nicholas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI-CG-W		1 survival, 1 growth		1 germination, 1 growth	---	---	
12/4/06	21	San Nicholas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI-CG-W-D		1 survival, 1 growth		1 germination, 1 growth	---	---	
12/4/06	21	San Nicholas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI-DB-W		1 survival, 1 growth		1 germination, 1 growth	---	---	
12/4/06	21	San Nicholas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI-TB-W		1 survival, 1 growth		1 germination, 1 growth	---	---	
12/4/06	21	San Nicholas Island	U.S. Department of the Navy	---	Ocean receiving water	SNI-BWC-W		1 survival, 1 growth		1 germination, 1 growth	---	---	
12/4/06	21	San Nicholas Island	U.S. Department of the Navy	---	Ocean reference water	SNI-CB-W		1 survival, 1 growth		1 germination, 1 growth	---	---	

Toxicity Data – Chronic Toxicity

Date	ASBS Number	ASBS	Sampling Agency	Nearest SCCWRP 2003 ID	Waterbody Description	Site Description	Type of Sample	Fish TUC	Mysid TUC	Kelp Germination TUC	Echinoderm Fertilization TUC	Bivalve Embryo Development TUC	Notes
12/4/06	21	San Nicholas Island	U.S. Department of the Navy	---	Ocean reference water	SNI-DH-W		1 survival, 1 growth	---	1 germination, 1 growth	---	---	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Discharge	SCI-WA-W	Grab	1 survival, 1 growth	---	1 germination, 1 growth (89% mean germination)	---	1.0 (86% normal)	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-WWO-W	Grab	1 survival, 1 growth	---	1 germination, 1 growth (99% mean germination)	---	1.0 (87% normal)	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-REF-W	Grab	1 survival, 1 growth	---	1 germination, 1 growth (90% mean germination)	---	1.0 (83% normal)	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-NW-W	Grab	1 survival, 1 growth	---	1 germination, 1 growth (87% mean germination)	---	1.0 (94% normal)	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-HB-W	Grab	1 survival, 1 growth	---	1 germination, 1 growth (87% mean germination)	---	1.0 (95% normal)	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean receiving water	SCI-HB-W-D	Grab	1 survival, 1 growth	---	1 germination, 1 growth (88% mean germination)	---	1.0 (96% normal)	
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean background water	SCI-LP-W	Grab	1 survival, 1 growth	---	1 germination, 1 growth (98% mean germination)	---	1.0 (88% normal)	

Toxicity Data – Chronic Toxicity

12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean background water	SCI-CR-W	Grab	1 survival, 1 growth	---	1 germination, 1 growth (85% mean germination)	---	1.0 (96% normal)
12/2/05	23	San Clemente Island	U.S. Department of the Navy	---	Ocean background water	SCI-SP-W	Grab	1 survival, 1 growth	---	1 germination, 1 growth (87% germination)	---	1.0 (95% normal)