Southern California Bight
2018 Regional Marine Monitoring Survey
(Bight'18)

Sediment Quality Assessment Field Operations Manual

APPENDICIES

Prepared by:
Bight'18 Field Sampling & Logistics Committee

Prepared for:
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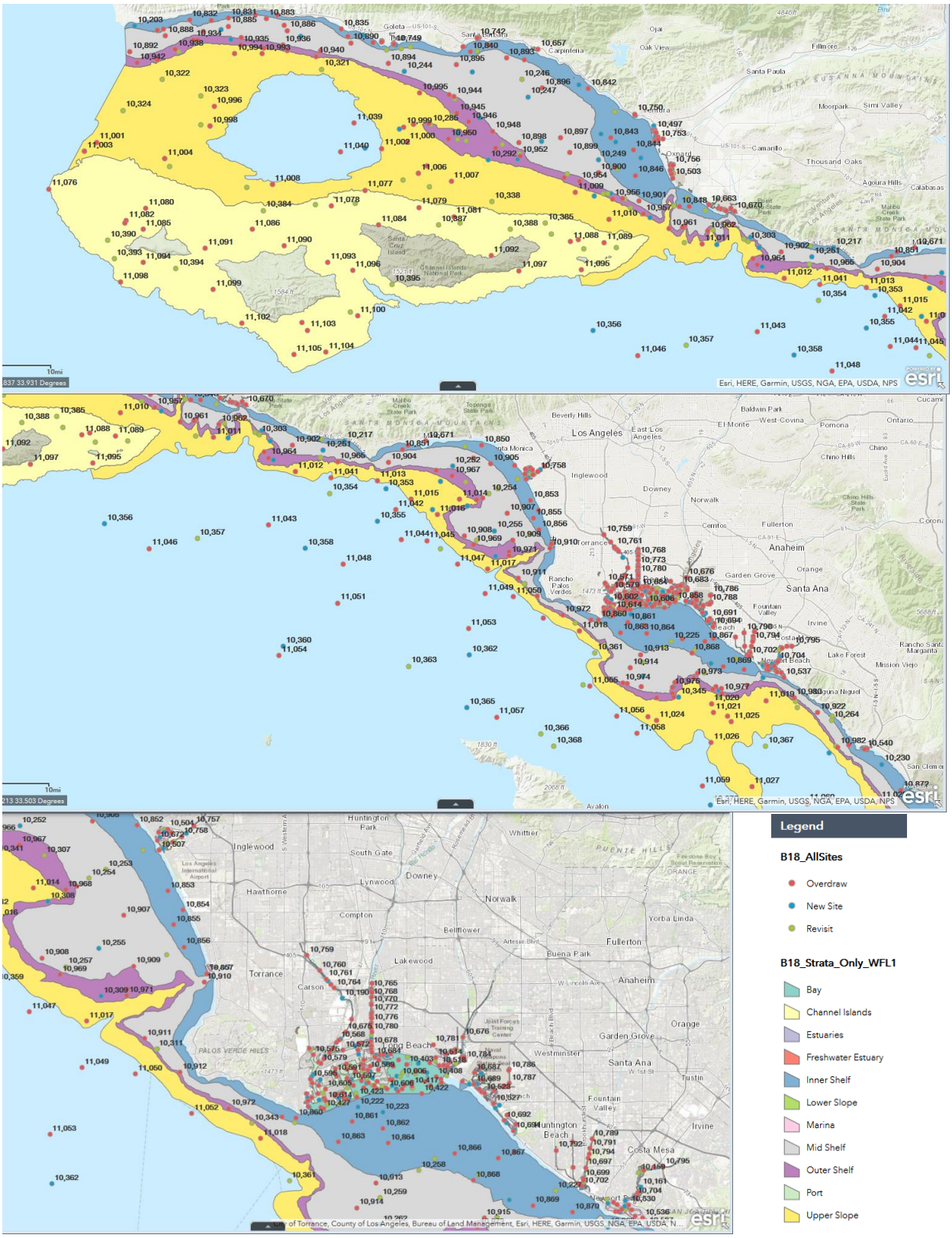
JULY 2018

APPENDIX A

BIGHT'18 STATION LOCATION MAPS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Overdraw
New Site
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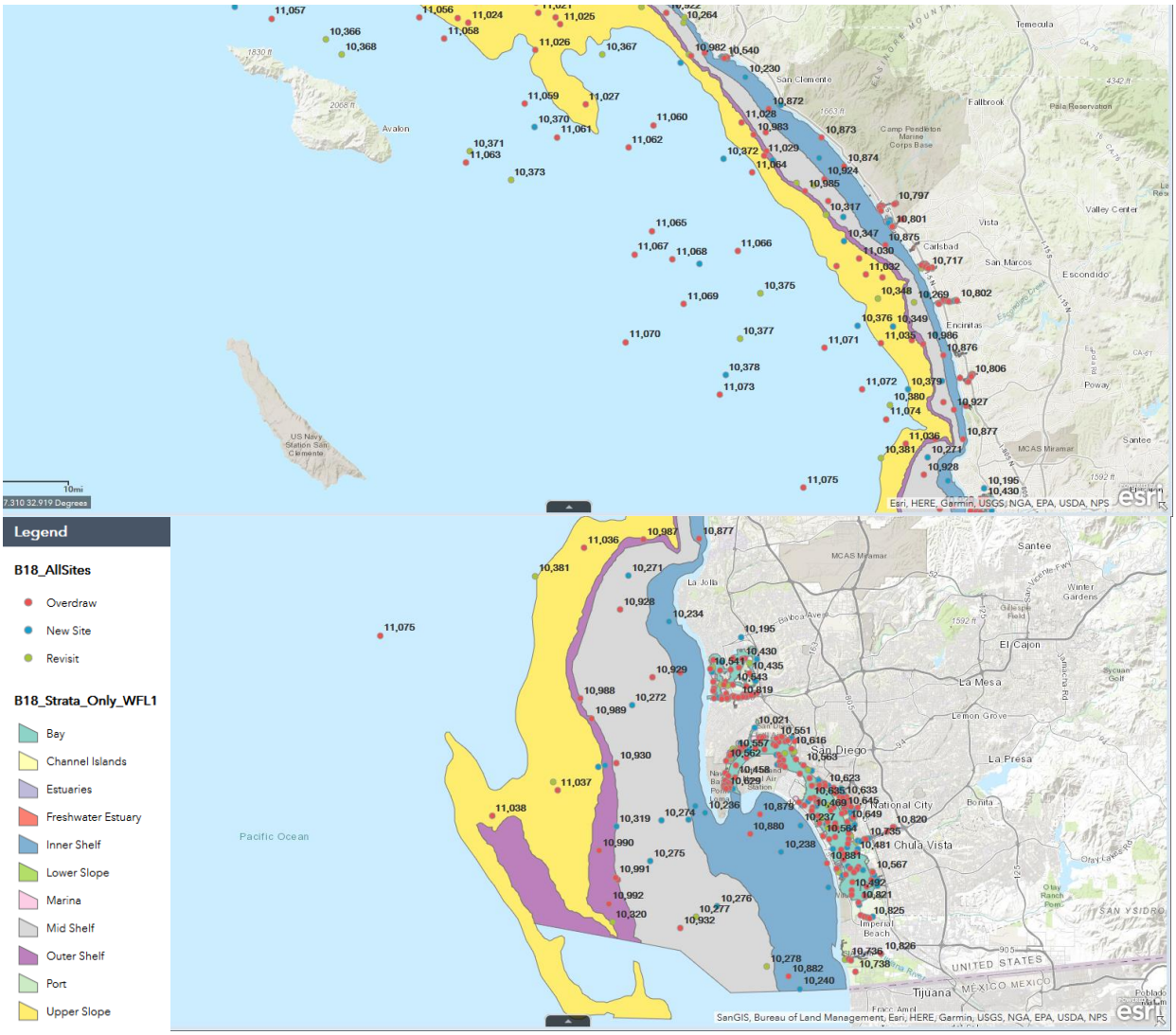
B18_Strata_Only_WFL1
Bay
Channel Islands
Estuaries
Freshwater Estuary
Inner Shelf
Lower Slope
Marina
Mid Shelf
Outer Shelf
Port
Upper Slope
Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS
City of Torrance, County of Los Angeles, Bureau of Land Management, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, N...



To zoom into selected areas, a link to an interactive map is provided below:
https://gis.sccwrp.org/arcgis/apps/webappviewer/index.html?id=8476b5a6697b47c090352879fccbe3c

APPENDIX B

BIGHT'18 FIELD SAMPLING ORGANIZATIONS

AND STATION DRAW INFORMATION

Table B1. Station locations and assignments

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10000	33.7594	-118.162667	5	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10001	33.75298309	-118.1502215	9	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10002	33.744217	-118.168733	10	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10003	33.74379309	-118.1398563	8	Bays	Los Angeles/Long Beach	Yes	RMC	Yes	CLA-EMD
B18-10004	33.742717	-118.1532	10	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10005	33.74081332	-118.1751432	14	Bays	Los Angeles/Long Beach	Yes	RMC	Yes	CLA-EMD
B18-10006	33.7398	-118.171317	12	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10007	33.73370098	-118.2113542	20	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10008	33.73168	-118.20415	20	Bays	Los Angeles/Long Beach	No	N/A	Yes	CLA-EMD
B18-10009	33.728683	-118.157	14	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10010	33.7282943	-118.1757358	16	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10011	33.72421	-118.22437	18	Bays	Los Angeles/Long Beach	Yes	POLA/LB	Yes	CLA-EMD
B18-10012	33.71345	-118.24131	24	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	Yes	CLA-EMD
B18-10013	33.71242	-118.2579	25	Bays	Los Angeles/Long Beach	Yes	CLA-EMD	No	N/A
B18-10014	33.70964533	-118.2791439	5	Bays	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10015	32.78719078	-117.2082639	0	Bays	Mission Bay	Yes	RHMP	No	N/A
B18-10016	32.78486474	-117.2405215	1	Bays	Mission Bay	Yes	RHMP	Yes	RHMP
B18-10017	32.784475	-117.215358	4	Bays	Mission Bay	Yes	RHMP	Yes	RHMP
B18-10018	32.77081374	-117.2097002	1	Bays	Mission Bay	Yes	RHMP	No	N/A
B18-10019	32.767905	-117.241481	7	Bays	Mission Bay	Yes	RHMP	Yes	RHMP
B18-10020	32.7580708	-117.2441015	2	Bays	Mission Bay	Yes	RHMP	No	N/A
B18-10021	32.73462213	-117.2105636	3	Bays	San Diego Bay	Yes	Unassigned	Yes	Unassigned
B18-10022	32.724148	-117.182983	5	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10023	32.71745595	-117.2159262	0	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10024	32.714963	-117.182907	12	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10025	32.7137	-117.1909	2	Bays	San Diego Bay- NBC	Yes	Navy	No	N/A
B18-10026	32.7096	-117.187	2	Bays	San Diego Bay- NBC	Yes	Navy	No	N/A
B18-10027	32.7079	-117.1850	2	Bays	San Diego Bay- NBC	Yes	Navy	No	N/A
B18-10028	32.70658	-117.19	2	Bays	San Diego Bay- NBC	Yes	Navy	No	N/A
B18-10029	32.701758	-117.15861	1	Bays	San Diego Bay	Yes	RHMP	No	N/A
B18-10030	32.68796429	-117.2305094	1	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10031	32.686984	-117.132959	1	Bays	San Diego Bay	Yes	RHMP	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10032	32.675472	-117.143841	5	Bays	San Diego Bay	Yes	RHMP	No	N/A
B18-10033	32.6752	-117.1670	3	Bays	San Diego Bay- NAB	Yes	Navy	No	N/A
B18-10034	32.665184	-117.149804	4	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10035	32.66074324	-117.1454935	3	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10036	32.658339	-117.144218	5	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10037	32.646936	-117.118238	10	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10038	32.6428033	-117.1262292	3	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10039	32.641654	-117.139188	2	Bays	San Diego Bay	Yes	RHMP	No	N/A
B18-10040	32.64164436	-117.1164632	1	Bays	San Diego Bay	Yes	RHMP	No	N/A
B18-10041	32.628574	-117.125565	2	Bays	San Diego Bay	Yes	RHMP	No	N/A
B18-10042	32.6258071	-117.1115371	1	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10043	32.6172124	-117.1022578	1	Bays	San Diego Bay	Yes	RHMP	Yes	RHMP
B18-10044	32.61327	-117.098925	1	Bays	San Diego Bay	Yes	RHMP	No	N/A
B18-10045	34.25841416	-119.2669992	0	Marinas	Ventura Harbor	Yes	ABC	No	N/A
B18-10046	34.1712	-119.22348	3	Marinas	Channel Islands Harbor	Yes	ABC	No	N/A
B18-10047	33.983083	-118.45075	2	Marinas	Marina del Rey	Yes	LA Public Works	No	N/A
B18-10048	33.98015207	-118.4509405	0	Marinas	Marina del Rey	Yes	LA Public Works	No	N/A
B18-10049	33.97524009	-118.4561531	0	Marinas	Marina del Rey	Yes	LA Public Works	No	N/A
B18-10050	33.970367	-118.447683	5	Marinas	Marina del Rey	Yes	LA Public Works	No	N/A
B18-10051	33.9647	-118.453517	5	Marinas	Marina del Rey	Yes	LA Public Works	No	N/A
B18-10052	33.77738666	-118.2417289	0	Marinas	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10053	33.767	-118.24938	4	Marinas	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10054	33.76044833	-118.1873161	0	Marinas	Long Beach	Yes	MBC	No	N/A
B18-10055	33.755483	-118.129894	20	Marinas	Alamitos Bay	Yes	MBC	No	N/A
B18-10056	33.7554306	-118.1137115	0	Marinas	Alamitos Bay	Yes	MBC	No	N/A
B18-10057	33.71932122	-118.281224	0	Marinas	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10058	33.71227661	-118.0538902	0	Marinas	Huntington Harbor	Yes	OC Public Works	No	N/A
B18-10059	33.61925	-117.926921	6	Marinas	Newport Bay	Yes	OCSD	No	N/A
B18-10060	33.61554889	-117.9255097	0	Marinas	Newport Bay	Yes	OCSD	No	N/A
B18-10061	33.61247612	-117.905245	0	Marinas	Newport Bay	Yes	OCSD	No	N/A
B18-10062	33.609098	-117.904639	6	Marinas	Newport Bay	Yes	OCSD	No	N/A
B18-10063	33.60709413	-117.911185	2	Marinas	Newport Bay	Yes	OCSD	No	N/A
B18-10064	33.59644797	-117.8802341	0	Marinas	Newport Bay	Yes	OCSD	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10065	33.46069968	-117.700811	1	Marinas	Dana Point Harbor	Yes	RHMP	No	N/A
B18-10066	33.46044769	-117.6946126	1	Marinas	Dana Point Harbor	Yes	RHMP	No	N/A
B18-10067	33.45946684	-117.6994206	1	Marinas	Dana Point Harbor	Yes	RHMP	No	N/A
B18-10068	33.45744334	-117.6912491	2	Marinas	Dana Point Harbor	Yes	RHMP	Yes	RHMP
B18-10069	33.21306086	-117.3952555	0	Marinas	Oceanside Harbor	Yes	RHMP	No	N/A
B18-10070	33.20946123	-117.3953086	1	Marinas	Oceanside Harbor	Yes	RHMP	No	N/A
B18-10071	33.2079881	-117.397525	1	Marinas	Oceanside Harbor	Yes	RHMP	Yes	RHMP
B18-10072	33.20419841	-117.3911786	0	Marinas	Oceanside Harbor	Yes	RHMP	No	N/A
B18-10073	32.780705	-117.249278	3	Marinas	Mission Bay	Yes	RHMP	No	N/A
B18-10074	32.77721291	-117.2497482	1	Marinas	Mission Bay	Yes	RHMP	No	N/A
B18-10075	32.767196	-117.235646	4	Marinas	Mission Bay	Yes	RHMP	No	N/A
B18-10076	32.72676884	-117.1767116	1	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10077	32.725018	-117.183684	6	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10078	32.722639	-117.223929	1	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10079	32.71984627	-117.2206964	1	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10080	32.718569	-117.226112	6	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10081	32.718402	-117.2304	4	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10082	32.71660252	-117.2259477	1	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10083	32.71238816	-117.23125	0	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10084	32.711543	-117.232552	7	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10085	32.62596927	-117.1356676	0	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10086	32.623601	-117.13346	3	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10087	32.62173551	-117.1014007	1	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10088	32.62152463	-117.1300244	0	Marinas	San Diego Bay	Yes	RHMP	No	N/A
B18-10104	33.73287437	-118.0892839	0	Marinas	Huntington Harbor	Yes	OC Public Works	No	N/A
B18-10089	33.7703171	-118.2244559	11	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10090	33.7662	-118.27747	15	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10091	33.7624346	-118.2207722	0	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10092	33.75995206	-118.2606779	0	Ports	Los Angeles/Long Beach	Yes	POLA/LB	No	N/A
B18-10093	33.75321832	-118.1884842	9	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10094	33.75269	-118.21776	18	Ports	Los Angeles/Long Beach	Yes	CLA-EMD	No	N/A
B18-10095	33.75109	-118.23063	17	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10096	33.74553	-118.2157	20	Ports	Los Angeles/Long Beach	Yes	POLA/LB	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10097	33.74517931	-118.2067595	0	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10098	33.74229211	-118.2739391	0	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10099	33.74011722	-118.2761255	0	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10100	33.7391719	-118.2044247	18	Ports	Los Angeles/Long Beach	Yes	CLA-EMD	No	N/A
B18-10101	33.73891	-118.21039	27	Ports	Los Angeles/Long Beach	Yes	CLA-EMD	No	N/A
B18-10102	33.73779584	-118.2289921	13	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10103	33.73743265	-118.265866	1	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10105	33.73173013	-118.1809134	15	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10106	33.7311	-118.1924	15	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10107	33.72924	-118.23361	11	Ports	Los Angeles/Long Beach	Yes	CLA-EMD	No	N/A
B18-10108	33.72387	-118.2627	27	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10109	33.71971041	-118.2318764	13	Ports	Los Angeles/Long Beach	Yes	CLA-EMD	No	N/A
B18-10110	33.71897199	-118.2438183	13	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10111	33.71707878	-118.2673881	13	Ports	Los Angeles/Long Beach	Yes	RMC	No	N/A
B18-10112	32.71619	-117.176237	13	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10113	32.716092	-117.173953	12	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10114	32.7024	-117.16178	9	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10115	32.69413825	-117.1523197	6	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10116	32.691721	-117.153217	13	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10117	32.691687	-117.238244	15	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10118	32.6907	-117.2340	3	Ports	San Diego Bay- NBPL	Yes	Navy	No	N/A
B18-10119	32.69025491	-117.1433799	0	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10120	32.6895	-117.2380	3	Ports	San Diego Bay- NBPL	Yes	Navy	No	N/A
B18-10121	32.68739097	-117.1406312	5	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10122	32.6872	-117.2340	3	Ports	San Diego Bay- NBPL	Yes	Navy	No	N/A
B18-10123	32.68578263	-117.1362525	5	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10124	32.68426001	-117.1310331	0	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10125	32.6832	-117.1291	3	Ports	San Diego Bay- NBSD	Yes	Navy	No	N/A
B18-10126	32.68167548	-117.1310279	3	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10127	32.6792931	-117.1285701	3	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10128	32.6784	-117.1243	3	Ports	San Diego Bay- NBSD	Yes	Navy	No	N/A
B18-10129	32.6780	-117.1621	3	Ports	San Diego Bay- NAB	Yes	Navy	No	N/A
B18-10130	32.67606917	-117.1269117	3	Ports	San Diego Bay- NBSD	Yes	Navy	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10131	32.67484386	-117.1540384	3	Ports	San Diego Bay- NAB	Yes	Navy	No	N/A
B18-10132	32.67427386	-117.1248611	2	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10133	32.67359712	-117.1296354	3	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10134	32.67245708	-117.1204634	3	Ports	San Diego Bay- NBSD	Yes	Navy	No	N/A
B18-10135	32.6721	-117.1180	3	Ports	San Diego Bay- NBSD	Yes	Navy	No	N/A
B18-10136	32.67014627	-117.123543	3	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10137	32.66783189	-117.1220505	2	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10138	32.6660	-117.1200	3	Ports	San Diego Bay- NBSD	Yes	Navy	No	N/A
B18-10139	32.66427152	-117.1225257	4	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10140	32.660613	-117.12339	10	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10141	32.66033036	-117.1253183	5	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10142	32.66006467	-117.1193153	3	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10143	32.65755441	-117.1232918	3	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10144	32.65155	-117.122464	12	Ports	San Diego Bay	Yes	RHMP	No	N/A
B18-10145	33.97108	-118.43923	7	Estuaries	Ballona Creek	Yes	MBC	No	N/A
B18-10146	33.96422692	-118.4521081	1	Estuaries	Ballona Creek	Yes	MBC	No	N/A
B18-10147	33.78083	-118.20569	9	Estuaries	Los Angeles River	Yes	MBC	No	N/A
B18-10148	33.7774381	-118.2055034	0	Estuaries	Los Angeles River	Yes	MBC	No	N/A
B18-10149	33.766034	-118.103714	8	Estuaries	Los Alamitos Estuary	Yes	MBC	No	N/A
B18-10150	33.76109325	-118.2003214	3	Estuaries	Los Angeles River Estuary	Yes	RMC	No	N/A
B18-10151	33.75302	-118.10528	4	Estuaries	San Gabriel River	Yes	ABC	No	N/A
B18-10152	33.72809	-118.0721	0	Estuaries	Huntington Harbor	Yes	OC Public Works	No	N/A
B18-10153	33.74148	-118.11662	2	Estuaries	San Gabriel River Estuary	Yes	ABC	No	N/A
B18-10155	33.70343	-118.0528	0	Estuaries	Bolsa Chica Wetlands	Yes	OC Public Works	No	N/A
B18-10156	33.69572	-118.0462	0	Estuaries	Bolsa Chica Wetlands	Yes	OC Public Works	No	N/A
B18-10158	33.64705	-117.88421	19	Estuaries	Upper Newport Bay	Yes	OC Public Works	No	N/A
B18-10159	33.64579	-117.8889	18	Estuaries	Upper Newport Bay	Yes	OC Public Works	No	N/A
B18-10160	33.636618	-117.953748	3	Estuaries	Santa Ana River	Yes	OC Public Works	No	N/A
B18-10161	33.63159164	-117.8865874	0	Estuaries	Newport Bay	Yes	OC Public Works	No	N/A
B18-10162	33.63667	-117.9633	2	Estuaries	Talbert Marsh	Yes	OC Public Works	No	N/A
B18-10163	33.62374695	-117.8922848	0	Estuaries	Newport Bay	Yes	OC Public Works	No	N/A
B18-10164	33.62096631	-117.8947269	1	Estuaries	Newport Bay	Yes	OC Public Works	No	N/A
B18-10165	33.61821915	-117.9046339	1	Estuaries	Newport Bay	Yes	OC Public Works	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10166	33.23333813	-117.4140932	2	Estuaries	Santa Margarita estuary	Yes	Riverside County Flood Control	No	N/A
B18-10167	33.23197	-117.41291	1	Estuaries	Santa Margarita Estuary	Yes	Riverside County Flood Control	No	N/A
B18-10168	33.140126	-117.324378	3	Estuaries	Agua Hedionda Lagoon	Yes	San Diego Stormwater	No	N/A
B18-10169	33.139452	-117.31874	1	Estuaries	Agua Hedionda Lagoon	Yes	San Diego Stormwater	No	N/A
B18-10170	33.139112	-117.337572	6	Estuaries	Agua Hedionda Lagoon	Yes	San Diego Stormwater	No	N/A
B18-10171	33.08985657	-117.2786859	0	Estuaries	Batiquitos Lagoon	Yes	San Diego Stormwater	No	N/A
B18-10172	33.08963637	-117.2947619	0	Estuaries	Batiquitos Lagoon	Yes	San Diego Stormwater	No	N/A
B18-10173	33.089536	-117.284912	0	Estuaries	Batiquitos Lagoon	Yes	San Diego Stormwater	No	N/A
B18-10174	32.97301227	-117.2496542	3	Estuaries	San Dieguito Lagoon	Yes	San Diego Stormwater	No	N/A
B18-10175	32.932778	-117.25881	0	Estuaries	Los Penasquitos Lagoon	Yes	San Diego Stormwater	No	N/A
B18-10177	32.756983	-117.235297	1	Estuaries	San Diego River	Yes	San Diego Stormwater	No	N/A
B18-10178	32.68785665	-117.1317259	0	Estuaries	San Diego Bay	Yes	RHMP	No	N/A
B18-10179	32.64973002	-117.1067462	0	Estuaries	San Diego Bay	Yes	RHMP	No	N/A
B18-10180	32.64779355	-117.1161832	1	Estuaries	San Diego Bay	Yes	RHMP	No	N/A
B18-10181	32.6477399	-117.113523	1	Estuaries	San Diego Bay	Yes	RHMP	No	N/A
B18-10182	32.55662	-117.128214	1	Estuaries	Tijuana River Estuary	Yes	San Diego Stormwater	No	N/A
B18-10176	32.757755	-117.22732	1	Brackish Estuaries	San Diego River	Yes	San Diego Stormwater	No	N/A
B18-10183	34.40800568	-119.844335	7	Brackish Estuaries	UCSB Lagoon	Yes	MBC	No	N/A
B18-10184	34.27684618	-119.3081933	2	Brackish Estuaries	Ventura River	Yes	ABC	No	N/A
B18-10185	34.238994	-119.2628082	1	Brackish Estuaries	Surfers Knoll Pond	No	MBC-Reject	No	N/A
B18-10774	33.79791672	-118.2048952	0	Brackish Estuaries	Los Angeles River	Yes	MBC	No	N/A
B18-10186	34.18694997	-119.223427	5	Brackish Estuaries	Edison Canal	Yes	MBC	No	N/A
B18-10187	34.18620034	-119.2299489	1	Brackish Estuaries	Edison Canal	Yes	MBC	No	N/A
B18-10188	33.97918128	-118.4248676	0	Brackish Estuaries	Ballona Creek	Yes	MBC	No	N/A
B18-10189	33.842076	-118.264579	5	Brackish Estuaries	Dominguez Channel	Yes	Dominguez Channel Watershed	No	N/A
B18-10190	33.791886	-118.230535	7	Brackish Estuaries	Dominguez Channel	Yes	Dominguez Channel Watershed	No	N/A
B18-10191	33.76313462	-118.1892578	4	Brackish Estuaries	Rainbow Lagoon	Yes	MBC	No	N/A
B18-10192	33.3870841	-117.5934011	0	Brackish Estuaries	San Mateo	Yes	MBC	No	N/A
B18-10193	33.20309722	-117.3912421	2	Brackish Estuaries	San Luis Rey River	Yes	SD Co/ San Luis Rey	No	N/A
B18-10194	32.97616023	-117.2477884	3	Brackish Estuaries	San Dieguito	Yes	San Diego County Stormwater	No	N/A
B18-10195	32.80422604	-117.2231091	3	Brackish Estuaries	Rose	Yes	San Diego County Stormwater	No	N/A
B18-10196	32.76112759	-117.2108584	0	Brackish Estuaries	San Diego River	Yes	San Diego Stormwater	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10197	32.75866963	-117.2172825	1	Brackish Estuaries	San Diego River	Yes	San Diego Stormwater	No	N/A
B18-10198	32.75801014	-117.2247979	0	Brackish Estuaries	San Diego River	Yes	San Diego Stormwater	No	N/A
B18-10199	32.65844403	-117.0834648	0	Brackish Estuaries	Sweetwater River	Yes	San Diego County Stormwater	No	N/A
B18-10200	32.61763302	-117.0976771	1	Brackish Estuaries	San Diego Bay	Yes	RHMP	No	N/A
B18-10201	32.59869843	-117.1154819	0	Brackish Estuaries	Otay	Yes	San Diego Stormwater	No	N/A
B18-10202	32.589642	-117.102982	0	Brackish Estuaries	Otay	Yes	San Diego Stormwater	No	N/A
B18-10203	34.44317889	-120.4298373	18	Inner Shelf	West Santa Barbara Channel	Yes	MBC	No	N/A
B18-10838	34.41259179	-119.8958176	19	Inner Shelf	Eastern Santa Barbara Channel	No	N/A	Yes	MBC
B18-10204	34.42640872	-119.917066	4	Inner Shelf	West Santa Barbara Channel	Yes	MBC	Yes	MBC
B18-10205	34.40395	-119.81211	18	Inner Shelf	East Santa Barbara Channel	No	N/A	Yes	ABC
B18-10206	34.398397	-119.864848	29	Inner Shelf	Campus Point	Yes	ABC	No	N/A
B18-10848	34.10921345	-119.2095335	29	Inner Shelf	Hueneme to Dume	No	N/A	Yes	ABC
B18-10207	34.396139	-119.661999	24	Inner Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10208	34.3340827	-119.4346221	19	Inner Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10209	34.28368	-119.35453	18	Inner Shelf	East Santa Barbara Channel	Yes	ABC	No	N/A
B18-10210	34.24335366	-119.3852447	26	Inner Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10211	34.22842249	-119.3525247	23	Inner Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10212	34.19944692	-119.2960875	17	Inner Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10213	34.17863	-119.34714	26	Inner Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10214	34.12488	-119.19248	15	Inner Shelf	Hueneme to Dume	Yes	ABC	Yes	ABC
B18-10215	34.10102	-119.15105	15	Inner Shelf	Hueneme to Dume	Yes	ABC	Yes	ABC
B18-10216	34.03669	-118.9171	15	Inner Shelf	Hueneme to Dume	Yes	ABC	No	N/A
B18-10217	34.0333739	-118.8638262	4	Inner Shelf	Hueneme to Dume	Yes	ABC	No	N/A
B18-10842	34.32715802	-119.4137858	13	Inner Shelf	Bight	No	N/A	Yes	ABC
B18-10218	34.0233	-118.593483	23	Inner Shelf	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10219	33.962433	-118.476117	16	Inner Shelf	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10220	33.733383	-118.122033	5	Inner Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10221	33.71388	-118.24162	18	Inner Shelf	Hueneme to Dume	No	N/A	Yes	ABC
B18-10222	33.71036868	-118.2216644	18	Inner Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10223	33.70516351	-118.1919918	22	Inner Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10224	33.6952	-118.296	27	Inner Shelf	Palos Verdes Shelf	Yes	LACSD	Yes	LACSD
B18-10225	33.6596	-118.131	27	Inner Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10226	33.6434	-118.078743	26	Inner Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10227	33.627799	-117.987516	13	Inner Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10228	33.61891999	-118.0418036	28	Inner Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10229	33.520951	-117.770247	16	Inner Shelf	Orange Shelf	Yes	OCSD	No	N/A
B18-10867	33.65988706	-118.054842	16	Inner Shelf	Bight	No	N/A	Yes	OCSD
B18-10230	33.43047212	-117.6582498	13	Inner Shelf	Orange Shelf	Yes	OCSD	Yes	OCSD
B18-10231	33.30718509	-117.5233882	17	Inner Shelf	North San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10232	33.09985	-117.3263453	12	Inner Shelf	North San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10233	33.0399657	-117.3128137	24	Inner Shelf	North San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10880	32.65309661	-117.214964	10	Inner Shelf	Bight	No	N/A	Yes	City of San Diego
B18-10234	32.81629057	-117.2889376	14	Inner Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10235	32.67462964	-117.2646724	13	Inner Shelf	South San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10236	32.66917453	-117.2559687	11	Inner Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10237	32.65983159	-117.1684268	10	Inner Shelf	South San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10238	32.63931549	-117.1865887	19	Inner Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10239	32.61201273	-117.1434812	11	Inner Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10240	32.53430972	-117.1693426	22	Inner Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10241	34.43591826	-120.2367627	75	Mid Shelf	West Santa Barbara Channel	Yes	MBC	Yes	MBC
B18-10242	34.42375244	-120.0577384	71	Mid Shelf	West Santa Barbara Channel	Yes	MBC	Yes	MBC
B18-10243	34.400981	-119.832791	29	Mid Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10244	34.35909285	-119.8250195	81	Mid Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10245	34.35756132	-119.673767	55	Mid Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10246	34.34406	-119.56253	44	Mid Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10247	34.31192099	-119.5477014	69	Mid Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10248	34.2297993	-119.5181744	88	Mid Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10249	34.19527121	-119.3909015	35	Mid Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10250	34.05265231	-119.0491019	82	Mid Shelf	Hueneme to Dume	Yes	CLA-EMD	Yes	CLA-EMD
B18-10251	34.0157796	-118.9120183	58	Mid Shelf	Hueneme to Dume	Yes	ABC	Yes	ABC
B18-10252	33.9864445	-118.6218623	73	Mid Shelf	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10253	33.943783	-118.519783	48	Mid Shelf	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10254	33.93486	-118.53976	37	Mid Shelf	Santa Monica Bay	No	N/A	Yes	CLA-EMD
B18-10255	33.86610609	-118.5280901	72	Mid Shelf	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10256	33.860133	-118.447783	60	Mid Shelf	Santa Monica Bay	No	CLA-EMD-reject	No	CLA-EMD-reject
B18-10906	33.92690864	-118.554542	115	Mid Shelf	Bight	Yes	CLA-EMD	Yes	CLA-EMD

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10257	33.84815	-118.56745	80	Mid Shelf	Santa Monica Bay	Yes	CLA-EMD	No	N/A
B18-10258	33.6481	-118.149	31	Mid Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10259	33.621	-118.195	43	Mid Shelf	San Pedro Shelf	Yes	OCSD	No	N/A
B18-10260	33.601949	-118.056462	38	Mid Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10261	33.60185	-118.05647	55	Mid Shelf	San Pedro Shelf	No	N/A	Yes	OCSD
B18-10262	33.59497191	-118.1944958	51	Mid Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10263	33.59226054	-117.9254279	28	Mid Shelf	San Pedro Shelf	Yes	OCSD	Yes	OCSD
B18-10264	33.512166	-117.771484	41	Mid Shelf	Orange Shelf	Yes	OCSD	No	N/A
B18-10914	33.61116072	-118.2224555	50	Mid Shelf	Bight	No	N/A	Yes	OCSD
B18-10265	33.269751	-117.564827	78	Mid Shelf	North San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10266	33.265584	-117.533447	62	Mid Shelf	North San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10267	33.21759371	-117.4805131	57	Mid Shelf	North San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10268	33.10526	-117.36216	85	Mid Shelf	North San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10269	33.08764	-117.35097	73	Mid Shelf	North San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10270	32.96766131	-117.2995866	48	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10271	32.85111126	-117.325908	67	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10272	32.75182312	-117.3226555	74	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10273	32.66439671	-117.2712796	43	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10274	32.66369091	-117.2959914	74	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10275	32.6323618	-117.3057403	103	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10276	32.59752772	-117.2447978	45	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10277	32.58969	-117.26429	58	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10278	32.55148	-117.1995	35	Mid Shelf	South San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10279	34.41819003	-120.2139579	163	Outer Shelf	West Santa Barbara Channel	Yes	MBC	Yes	MBC
B18-10280	34.39785188	-120.0874257	183	Outer Shelf	West Santa Barbara Channel	Yes	Unassigned	Yes	Unassigned
B18-10281	34.39477	-120.33174	184	Outer Shelf	West Santa Barbara Channel	Yes	MBC	No	N/A
B18-10282	34.30786	-119.71283	139	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	No	N/A
B18-10283	34.27783	-119.71844	202	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10284	34.27241821	-119.6573421	129	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10285	34.26088	-119.76726	195	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	No	N/A
B18-10286	34.24395824	-119.7057712	173	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10287	34.23287	-119.70663	159	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	No	N/A
B18-10288	34.2303	-119.68726	138	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10289	34.22412	-119.60608	146	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	No	N/A
B18-10290	34.20677	-119.56748	135	Outer Shelf	East Santa Barbara Channel	No	N/A	Yes	LACSD
B18-10291	34.19693036	-119.5713302	147	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10292	34.19563166	-119.6373317	226	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10293	34.16897	-119.46088	127	Outer Shelf	East Santa Barbara Channel	Yes	LACSD	No	N/A
B18-10294	34.1329	-119.37902	119	Outer Shelf	East Santa Barbara Channel	No	N/A	Yes	LACSD
B18-10295	34.13274521	-119.3633611	178	Outer Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10296	34.132675	-119.369899	173	Outer Shelf	East Santa Barbara Channel	No	N/A	Yes	LACSD
B18-10297	34.12281	-119.33129	129	Outer Shelf	East Santa Barbara Channel	No	N/A	Yes	LACSD
B18-10298	34.11009	-119.22178	137	Outer Shelf	Hueneme to Dume	Yes	ABC	No	N/A
B18-10299	34.10717	-119.31902	195	Outer Shelf	East Santa Barbara Channel	No	N/A	Yes	ABC
B18-10300	34.08884049	-119.2747574	210	Outer Shelf	East Santa Barbara Channel	Yes	ABC	Yes	ABC
B18-10301	34.06644	-119.13415	186	Outer Shelf	Hueneme to Dume	Yes	ABC	No	N/A
B18-10302	34.04914	-119.06544	119	Outer Shelf	Hueneme to Dume	No	N/A	Yes	ABC
B18-10303	34.04413	-119.05558	205	Outer Shelf	Hueneme to Dume	Yes	CLA-EMD	Yes	CLA-EMD
B18-10304	34.03355024	-119.0300097	129	Outer Shelf	Hueneme to Dume	Yes	CLA-EMD	Yes	CLA-EMD
B18-10305	34.002434	-118.917967	118	Outer Shelf	Hueneme to Dume	No	N/A	Yes	LACSD
B18-10306	33.99729247	-119.0237869	85	Outer Shelf	Hueneme to Dume	Yes	CLA-EMD	Yes	CLA-EMD
B18-10307	33.95711	-118.59303	156	Outer Shelf	Santa Monica Bay	No	N/A	Yes	LACSD
B18-10308	33.91233898	-118.5885681	201	Outer Shelf	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10309	33.8191507	-118.5255526	169	Outer Shelf	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10310	33.76745	-118.45903	118	Outer Shelf	Santa Monica Bay	No	N/A	Yes	LACSD
B18-10311	33.7671	-118.46	127	Outer Shelf	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10312	33.57529025	-118.1254068	119	Outer Shelf	San Pedro Channel	Yes	OCSD	Yes	OCSD
B18-10313	33.56828222	-118.0242786	95	Outer Shelf	San Pedro Channel	Yes	OCSD	Yes	OCSD
B18-10314	33.547898	-117.85292	190	Outer Shelf	Orange Shelf	No	N/A	Yes	OCSD
B18-10315	33.464034	-117.761898	155	Outer Shelf	Orange Shelf	Yes	OCSD	No	N/A
B18-10316	33.30330725	-117.609189	130	Outer Shelf	San Diego Slope	Yes	City of San Diego	Yes	City of San Diego
B18-10317	33.221016	-117.511475	181	Outer Shelf	North San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10318	32.70574626	-117.347139	185	Outer Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10319	32.65914361	-117.3370725	155	Outer Shelf	South San Diego Shelf	Yes	City of San Diego	No	N/A
B18-10320	32.58574	-117.3407	183	Outer Shelf	South San Diego Shelf	Yes	City of San Diego	Yes	City of San Diego
B18-10321	34.36292	-120.0104	453	Upper Slope	West Santa Barbara Channel	Yes	MBC	Yes	MBC

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10322	34.34418	-120.36868	288	Upper Slope	West Santa Barbara Channel	Yes	MBC	Yes	MBC
B18-10323	34.31423	-120.28184	387	Upper Slope	West Santa Barbara Channel	Yes	MBC	No	N/A
B18-10324	34.28685	-120.45566	430	Upper Slope	West Santa Barbara Channel	Yes	MBC	Yes	MBC
B18-10325	34.26183967	-119.8054344	280	Upper Slope	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10326	34.260016	-120.281134	463	Upper Slope	West Santa Barbara Channel	No	N/A	Yes	MBC
B18-10327	34.25797601	-120.2614808	478	Upper Slope	West Santa Barbara Channel	Yes	Unassigned	Yes	Unassigned
B18-10328	34.25207557	-119.8373496	385	Upper Slope	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10329	34.21151049	-120.5426017	314	Upper Slope	West Santa Barbara Channel	Yes	Unassigned	Yes	Unassigned
B18-10330	34.19785735	-120.3625382	477	Upper Slope	West Santa Barbara Channel	Yes	Unassigned	Yes	Unassigned
B18-10331	34.18317	-120.35125	457	Upper Slope	West Santa Barbara Channel	Yes	MBC	Yes	MBC
B18-10332	34.17079922	-119.7936254	390	Upper Slope	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10333	34.15835	-119.82779	406	Upper Slope	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10334	34.14986805	-120.1213097	487	Upper Slope	West Santa Barbara Channel	Yes	Unassigned	Yes	Unassigned
B18-10335	34.1457	-119.76997	363	Upper Slope	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10336	34.144	-120.17799	430	Upper Slope	West Santa Barbara Channel	Yes	MBC	Yes	MBC
B18-10337	34.12821897	-119.3999854	225	Upper Slope	Hueneme to Dume	Yes	LACSD	Yes	LACSD
B18-10338	34.11828	-119.6289	259	Upper Slope	East Santa Barbara Channel	Yes	LACSD	Yes	LACSD
B18-10339	34.0416	-119.19757	400	Upper Slope	Hueneme to Dume	Yes	LACSD	Yes	LACSD
B18-10340	34.03853333	-119.1256413	373	Upper Slope	Hueneme to Dume	Yes	LACSD	Yes	LACSD
B18-10341	33.95820606	-118.6488313	229	Upper Slope	Santa Monica Bay	Yes	CLA-EMD	Yes	CLA-EMD
B18-10342	33.90605707	-118.6663844	443	Upper Slope	Santa Monica Bay	Yes	LACSD	Yes	LACSD
B18-10343	33.6942	-118.347	257	Upper Slope	Palos Verdes Shelf	Yes	LACSD	Yes	LACSD
B18-10344	33.556099	-118.021956	227	Upper Slope	Orange Slope	Yes	OCSD	Yes	OCSD
B18-10345	33.55555561	-118.1147775	243	Upper Slope	Orange Slope	Yes	OCSD	Yes	OCSD
B18-10346	33.536816	-117.847705	345	Upper Slope	Orange Slope	Yes	OCSD	Yes	OCSD
B18-10347	33.1806614	-117.478174	243	Upper Slope	San Diego Slope	Yes	City of San Diego	Yes	City of San Diego
B18-10348	33.09383	-117.41715	405	Upper Slope	San Diego Slope	Yes	City of San Diego	Yes	City of San Diego
B18-10349	33.05043032	-117.389548	395	Upper Slope	San Diego Slope	Yes	City of San Diego	Yes	City of San Diego
B18-10350	32.70484185	-117.353721	232	Upper Slope	San Diego Slope	Yes	City of San Diego	Yes	City of San Diego
B18-10351	32.6929	-117.39491	372	Upper Slope	San Diego Slope	Yes	City of San Diego	Yes	City of San Diego
B18-10352	34.21724563	-119.9140528	534	Lower Slope	East Santa Barbara Channel	Yes	LACSD	No	N/A
B18-10353	33.94413688	-118.7713436	583	Lower Slope	Santa Monica Basin	Yes	CLA-EMD	No	N/A
B18-10354	33.93569	-118.89715	827	Lower Slope	Hueneme to Dume	Yes	LACSD	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10355	33.88368692	-118.7900578	818	Lower Slope	Santa Monica Basin	Yes	LACSD	No	N/A
B18-10356	33.87933016	-119.4029034	705	Lower Slope	Hueneme to Dume	Yes	LACSD	No	N/A
B18-10357	33.85208	-119.19431	845	Lower Slope	Hueneme to Dume	Yes	LACSD	No	N/A
B18-10358	33.83378242	-118.9524278	900	Lower Slope	Santa Monica Basin	Yes	LACSD	No	N/A
B18-10359	33.83245	-118.64885	678	Lower Slope	Santa Monica Basin	Yes	CLA-EMD	No	N/A
B18-10360	33.65083511	-119.0017093	701	Lower Slope	Santa Monica Basin	Yes	LACSD	No	N/A
B18-10361	33.63781	-118.30256	613	Lower Slope	San Pedro Channel	Yes	OCSD	No	N/A
B18-10362	33.63467314	-118.5836013	746	Lower Slope	San Pedro Channel	Yes	LACSD	No	N/A
B18-10363	33.61355	-118.72014	750	Lower Slope	Santa Monica Basin	Yes	LACSD	No	N/A
B18-10364	33.57922	-118.32894	690	Lower Slope	San Pedro Channel	Yes	OCSD	No	N/A
B18-10365	33.53645097	-118.5894325	516	Lower Slope	San Pedro Channel	Yes	LACSD	No	N/A
B18-10366	33.48691	-118.42353	900	Lower Slope	San Pedro Channel	Yes	LACSD	No	N/A
B18-10367	33.46425	-117.919678	558	Lower Slope	Orange Slope	Yes	OCSD	No	N/A
B18-10368	33.46395	-118.39474	595	Lower Slope	San Pedro Channel	Yes	LACSD	No	N/A
B18-10369	33.45226098	-117.7768889	583	Lower Slope	Orange Slope	Yes	OCSD	No	N/A
B18-10370	33.35429475	-118.0432223	747	Lower Slope	Orange Slope	Yes	OCSD	No	N/A
B18-10371	33.317468	-118.160612	787	Lower Slope	Orange Slope	Yes	OCSD	No	N/A
B18-10372	33.30579143	-117.697866	691	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10373	33.274032	-118.086377	826	Lower Slope	Orange Slope	Yes	OCSD	No	N/A
B18-10374	33.14638708	-117.7429	809	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10375	33.10192	-117.6311	788	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10376	33.05229639	-117.4540585	509	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10377	33.03243	-117.66875	854	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10378	32.9772337	-117.6945535	898	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10379	32.95543291	-117.3626538	492	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10380	32.93167	-117.39472	562	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10381	32.85103	-117.41079	527	Lower Slope	San Diego Slope	Yes	City of San Diego	No	N/A
B18-10382	34.11525	-119.93538	100	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10383	34.11255	-120.02533	110	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10384	34.1018	-120.14144	101	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10385	34.0788	-119.50937	124	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10386	34.07858	-119.70081	92	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10387	34.07505	-119.74828	88	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A

B18 Station ID	Target Latitude	Target Longitude	GIS Depth	B18 Stratum	Region	Sed Grab	Agency Sed Grab	Trawl	Agency Trawl
B18-10388	34.06663	-119.58862	88	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10389	34.05855	-119.4961	82	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10390	34.04681	-120.48995	75	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10391	34.03352	-119.35002	84	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10392	34.03022	-119.42289	82	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10393	34.01217	-120.47562	95	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10394	33.99451	-120.33739	71	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10395	33.96426	-119.85254	21	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A
B18-10396	33.91322	-119.94719	72	Channel Islands	North Channel Islands	Yes	NOAA/ SCCWRP	No	N/A

APPENDIX C

BIGHT'18 SAMPLE PROCESSING

ANALYTICAL LABORATORIES

Table C1. Sediment Laboratory Assignments

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10000	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10001	CLA-EMD	CLA-EMD	AMEC/ WOOD	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10002	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10003	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10004	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10005	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10006	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10007	CLA-EMD	CLA-EMD	AMEC/ WOOD	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10008	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10009	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10010	CLA-EMD	CLA-EMD	AMEC/ WOOD	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10011	POLA/LB	CLA-EMD	ABC	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	LACSD	Weck	Weck	N/A	POLA/LB
B18-10012	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10013	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10014	RMC	RMC	RMC	RMC	N/A	RMC	RMC	RMC	RMC	N/A	N/A	N/A	N/A	RMC
B18-10015	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10016	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10017	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10018	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10019	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10020	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10021	Unassigned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10022	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10023	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10024	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10025	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10026	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10027	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10028	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10029	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10030	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10031	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10032	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10033	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10034	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10035	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10036	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10037	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10038	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10039	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10040	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10041	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10042	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10043	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10044	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10045	ABC	LACSD	AMEC/ WOOD	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	OCSD	OCSD	OCSD	N/A	ABC
B18-10046	ABC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	OCSD	OCSD	OCSD	N/A	ABC
B18-10047	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LACSD	Weck	Weck	N/A	LA Public Works
B18-10048	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LACSD	Weck	Weck	N/A	LA Public Works
B18-10049	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LACSD	Weck	Weck	N/A	LA Public Works
B18-10050	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LACSD	Weck	Weck	N/A	LA Public Works
B18-10051	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LA Public Works	LACSD	Weck	Weck	N/A	LA Public Works
B18-10052	RMC	RMC	RMC	RMC	N/A	RMC	RMC	RMC	RMC	N/A	N/A	N/A	N/A	RMC

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10053	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10054	MBC	AMEC/ WOOD	Unassigned	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10055	MBC	CLA-EMD	AMEC/ WOOD	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	Dancing Coyote
B18-10056	MBC	AMEC/ WOOD	Unassigned	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	Dancing Coyote
B18-10057	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10058	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10059	OCSD	OCSD	OC Public Works	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	OCSD
B18-10060	OCSD	CLA-EMD	OC Public Works	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	OCSD
B18-10061	OCSD	CLA-EMD	OC Public Works	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	OCSD
B18-10062	OCSD	OCSD	OC Public Works	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	OCSD
B18-10063	OCSD	CLA-EMD	OC Public Works	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	OCSD
B18-10064	OCSD	CLA-EMD	OC Public Works	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	OCSD
B18-10065	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10066	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10067	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10068	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10069	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10070	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10071	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10072	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10073	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10074	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10075	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10076	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10077	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10078	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10079	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10080	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10081	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10082	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10083	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10084	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10085	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10086	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10087	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10088	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10089	RMC	RMC	RMC	RMC	N/A	RMC	RMC	RMC	RMC	N/A	N/A	N/A	N/A	RMC
B18-10090	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10091	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10092	POLA/LB	AMEC/ WOOD	AMEC/ WOOD	City of San Diego	City of San Diego	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	LACSD	Weck	Weck	N/A	POLA/LB
B18-10093	RMC	RMC	RMC	RMC	N/A	RMC	RMC	RMC	RMC	N/A	N/A	N/A	N/A	RMC
B18-10094	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	LACSD	OCSD	OCSD	N/A	CLA-EMD
B18-10095	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10096	POLA/LB	LACSD	ABC	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	LACSD	Weck	Weck	N/A	POLA/LB
B18-10097	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10098	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10099	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10100	CLA-EMD	CLA-EMD	Unassigned	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	LACSD	OCSD	OCSD	N/A	CLA-EMD
B18-10101	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	LACSD	OCSD	OCSD	N/A	CLA-EMD
B18-10102	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10103	RMC	RMC	RMC	RMC	N/A	RMC	RMC	RMC	RMC	N/A	N/A	N/A	N/A	RMC
B18-10104	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10105	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10106	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10107	CLA-EMD	CLA-EMD	ABC	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10108	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10109	CLA-EMD	CLA-EMD	Unassigned	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	LACSD	OCSD	OCSD	N/A	CLA-EMD
B18-10110	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10111	RMC	RMC	RMC	RMC	City of San Diego	RMC	RMC	RMC	RMC	LACSD	Weck	Weck	N/A	RMC
B18-10112	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10113	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10114	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10115	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10116	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10117	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10118	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10119	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10120	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10121	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10122	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10123	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10124	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10125	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10126	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10127	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10128	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10129	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10130	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10131	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10132	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10133	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10134	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10135	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10136	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10137	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10138	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Navy	Unassigned	Unassigned	Unassigned	N/A	Navy
B18-10139	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10140	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10141	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10142	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10143	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10144	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10145	MBC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10146	MBC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	CLA-EMD
B18-10147	MBC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10148	MBC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10149	MBC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10150	RMC	RMC	RMC	RMC	N/A	RMC	RMC	RMC	RMC	N/A	N/A	N/A	N/A	RMC
B18-10151	ABC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	OCSD	OCSD	OCSD	N/A	ABC
B18-10152	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10153	ABC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	OCSD	OCSD	OCSD	N/A	ABC
B18-10155	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10156	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10158	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10159	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10160	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10161	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10162	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10163	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10164	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10165	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	OC Public Works	N/A	OC Public Works
B18-10166	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	N/A	Riverside County Flood Control
B18-10167	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	Riverside County Flood Control	N/A	Riverside County Flood Control
B18-10168	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10169	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10170	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10171	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10172	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10173	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10174	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10175	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10176	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10177	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10178	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10179	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10180	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10181	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10182	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10183	MBC	LACSD	ABC	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10184	ABC	ABC	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	OCSD	OCSD	OCSD	N/A	ABC
B18-10185	MBC	LACSD	ABC	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10186	MBC	ABC	ABC	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10187	MBC	LACSD	ABC	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10188	MBC	LACSD	SCCWRP-archive	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10189	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	N/A	Dominguez Channel Watershed
B18-10190	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	Dominguez Channel Watershed	N/A	Dominguez Channel Watershed
B18-10191	MBC	LACSD	EcoAnalyst	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	EcoAnalyst
B18-10192	MBC	LACSD	SCCWRP-archive	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	Dancing Coyote
B18-10193	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	SD Co/ San Luis Rey	N/A	SD Co/ San Luis Rey
B18-10194	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	N/A	San Diego County Stormwater
B18-10195	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	N/A	San Diego County Stormwater
B18-10196	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10197	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10198	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10199	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	San Diego County Stormwater	N/A	San Diego County Stormwater
B18-10200	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	RHMP	N/A	RHMP
B18-10201	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10202	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	San Diego Stormwater	N/A	San Diego Stormwater
B18-10203	MBC	LACSD	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10204	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10205	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10206	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10207	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10208	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10209	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10210	ABC	LACSD	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	SCCWRP-archive	N/A	Weck	ABC
B18-10211	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10212	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10213	ABC	N/A	N/A	City of San Diego	City of San Diego	OCSD	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10214	ABC	N/A	N/A	City of San Diego	City of San Diego	OCSD	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10215	ABC	N/A	N/A	City of San Diego	City of San Diego	OCSD	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10216	ABC	N/A	N/A	City of San Diego	City of San Diego	OCSD	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10217	ABC	LACSD	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	SCCWRP-archive	N/A	Weck	ABC
B18-10218	CLA-EMD	CLA-EMD	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	SCCWRP-archive	N/A	Weck	CLA-EMD
B18-10219	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10220	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	OCSD
B18-10221	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10222	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	OCSD
B18-10223	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	OCSD
B18-10224	LACSD	LACSD	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	SCCWRP-archive	N/A	Weck	LACSD
B18-10225	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	OCSD
B18-10226	OCSD	OCSD	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	SCCWRP-archive	N/A	Weck	OCSD
B18-10227	OCSD	OCSD	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	SCCWRP-archive	N/A	Weck	OCSD
B18-10228	OCSD	OCSD	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	SCCWRP-archive	N/A	Weck	OCSD
B18-10229	OCSD	OCSD	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	SCCWRP-archive	N/A	Weck	OCSD
B18-10230	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	OCSD
B18-10231	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10232	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10233	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10234	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10235	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10236	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10237	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10238	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10239	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10240	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10241	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10242	MBC	LACSD	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10243	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10244	ABC	LACSD	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	SCCWRP-archive	N/A	Weck	ABC
B18-10245	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10246	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10247	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10248	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10249	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10250	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10251	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10252	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10253	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10254	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10255	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10256	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10257	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10258	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	City of San Diego
B18-10259	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	City of San Diego
B18-10260	OCSD	OCSD	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10261	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10262	OCSD	OCSD	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10263	OCSD	OCSD	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10264	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	City of San Diego
B18-10265	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10266	City of San Diego	CLA-EMD	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10267	City of San Diego	CLA-EMD	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10268	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10269	City of San Diego	CLA-EMD	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10270	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10271	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10272	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10273	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10274	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10275	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10276	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10277	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10278	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10279	MBC	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10280	Unassigned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10281	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10282	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10283	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10284	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10285	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10286	LACSD	LACSD	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	SCCWRP-archive	N/A	Weck	LACSD
B18-10287	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10288	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10289	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10290	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10291	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10292	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10293	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	Weck	LACSD
B18-10294	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10295	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10296	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10297	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10298	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	ABC
B18-10299	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10300	ABC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	N/A	N/A	Weck	OCSD
B18-10301	ABC	LACSD	N/A	City of San Diego	City of San Diego	City of San Diego	ABC	ABC	ABC	N/A	SCCWRP-archive	N/A	Weck	ABC
B18-10302	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10303	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10304	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10305	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10306	CLA-EMD	CLA-EMD	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	SCCWRP-archive	N/A	Weck	CLA-EMD
B18-10307	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10308	CLA-EMD	CLA-EMD	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	SCCWRP-archive	N/A	Weck	CLA-EMD
B18-10309	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	Weck	CLA-EMD
B18-10310	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10311	CLA-EMD	CLA-EMD	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	SCCWRP-archive	N/A	Weck	CLA-EMD
B18-10312	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	OCSD
B18-10313	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	Weck	OCSD
B18-10314	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10315	OCSD	OCSD	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	SCCWRP-archive	N/A	Weck	OCSD
B18-10316	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10317	City of San Diego	CLA-EMD	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10318	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10319	City of San Diego	City of San Diego	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	Weck	City of San Diego
B18-10320	City of San Diego	CLA-EMD	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	SCCWRP-archive	N/A	Weck	City of San Diego
B18-10321	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	City of San Diego

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10322	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10323	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10324	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10325	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10326	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10327	Unassigned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10328	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10329	Unassigned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10330	Unassigned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10331	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10332	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10333	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10334	Unassigned	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
B18-10335	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10336	MBC	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	OCSD	OCSD	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10337	LACSD	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	CLA-EMD
B18-10338	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10339	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10340	LACSD	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	CLA-EMD
B18-10341	CLA-EMD	N/A	N/A	City of San Diego	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	N/A	N/A	N/A	N/A	CLA-EMD
B18-10342	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10343	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10344	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10345	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10346	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10347	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10348	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10349	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10350	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10351	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10352	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10353	CLA-EMD	N/A	N/A	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	CLA-EMD
B18-10354	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10355	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10356	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10357	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10358	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10359	CLA-EMD	N/A	N/A	City of San Diego	City of San Diego	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	CLA-EMD
B18-10360	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10361	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10362	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10363	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10364	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10365	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10366	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10367	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10368	LACSD	N/A	N/A	City of San Diego	LACSD	LACSD	LACSD	LACSD	LACSD	N/A	N/A	N/A	N/A	LACSD
B18-10369	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10370	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10371	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10372	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10373	OCSD	N/A	N/A	City of San Diego	OCSD	OCSD	OCSD	OCSD	OCSD	N/A	N/A	N/A	N/A	OCSD
B18-10374	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10375	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego

B18 Station ID	Agency Sed Grab	Agency Tox Eohaust	Agency Tox Mytilus	Agency Grain Size	Agency TOC/ TN	Agency Metals	Agency PAH	Agency CHC	Agency PCB	Agency Pyreth	Agency PBDE	Agency Fiproynl	Agency Domoic Acid	Agency Infauna
B18-10376	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10377	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10378	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10379	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10380	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10381	City of San Diego	N/A	N/A	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	City of San Diego	N/A	N/A	N/A	N/A	City of San Diego
B18-10382	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	CLA-EMD
B18-10383	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	CLA-EMD
B18-10384	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	CLA-EMD
B18-10385	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	CLA-EMD
B18-10386	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	CLA-EMD
B18-10387	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	CLA-EMD
B18-10388	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	OCSD
B18-10389	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	OCSD
B18-10390	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	OCSD
B18-10391	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	OCSD
B18-10392	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego
B18-10393	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego
B18-10394	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego
B18-10395	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego
B18-10396	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego	City of San Diego	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	NOAA/ SCCWRP	N/A	City of San Diego

Table C2. Fish Tissue Laboratory Assignments

Laboratory	Fish Tissue DDT	Fish Tissue Total Mercury	Fish Tissue PCBs	Fish Tissue Lipid Content
	Total # Samples	Total # Samples	Total # Samples	Total # Samples
RHMP	75	75	75	75
City of San Diego	39	100	39	100
OCSD	60	60	60	60
OC Public Works	9	9	9	9
LACSD	30	30	30	30
CLA-EMD	70	70	70	70

APPENDIX D

BIGHT'18 FIELD SAMPLING

EQUIPMENT AND SUPPLY LIST

BIGHT'18 EQUIPMENT AND SUPPLY LIST

GENERAL

Bight'18 Field Operations Manual
Bight'18 Sediment Quality Assessment Workplan
Field Computer/Tablets
Station Occupation data sheets
Field data sheets (Demersal Fish, Epibenthic Invertebrate, Trawl Debris, Sample Tracking, Chain of Custody
Map or list of sites (or programmed into ship's navigation system)
Clipboards and No. 2 pencils
Plastic bags, Zip-Locks, and whirl-paks
Waterproof pens
100% rag paper tags or equivalent
First aid supplies
Sunscreen
Protective glasses
Gloves – leather, latex, and nitrile
Hand Tools - channel locks or pliers, sockets and wrenches, diagonal cutters, etc.
Paper towels and/or cotton towels
Floats/anchors (to mark lost equipment)
Camera
Plenty of water for crew

TRAWL SURVEYS

7.6-M otter trawl net, doors, bridles (and extras)
Spare chain, shackles, and rope
Sorting buckets, tubs, and tags
Field guides and keys
Hand lens
Ice chest with wet ice
Dissecting kits
Spring scales, tare buckets, and calibration weights
Fish Measuring Boards
Jars
Buffered formalin
Relaxant
70% ETOH
95% ETOH (optional for DNA samples)
Pressure/Temperature Sensor (may want to have spares, in case of loss)
Camera, camera board
Photo ID bucket
Camera with spare batteries and memory
Spare specimen bottles

BENTHIC SURVEYS

Modified Van Veen grab sampler
Push corer
Plastic centimeter rulers
Timers
Screening box with 1.0 mm screen (0.5 mm Brackish Estuaries)
Large plastic tubs
Relaxant in seawater
Buffered formalin
Graduated cylinders
Safety Glasses
Stainless and plastic sediment scoops
Ice Chest with wet Ice
Ice Chest with Dry Ice (for nematode study)
Glass Jars / Teflon bags for sediment chemistry and Toxicity
Plastic Jars (variety) for infauna
External labels
Clear packaging tape for outside of infauna containers
Deionized water
Brushes
Forceps
Siphon hose or turkey baster (to remove supernatant water)
5-gallon bucket
Sediment Toxicity Teflon bags
Sediment Toxicity secondary plastic bags
Zip ties
Benthic Screening tables or screens
Hoses (each vessel as their own configuration

APPENDIX E

BIGHT'18 VESSEL SPECIFICATIONS

SPECIFICATION	1	2	3	4	5	6	7	8	9
agency	City of L.A.	City of L.A.	City of L.A.	L.A.C.S.D.	L.A.C.S.D.	OCSD	City of S.D.	City of S.D.	NOAA/CINMS
vessel name	La Mer	Marine Surveyor	Parker	Ocean Sentinel	Phaon	Nerissa	Monitor III	Oceanus	Shearwater
length (ft)	84	61	20	66	25	58	42	48	62
home port	Marina del Rey	Cabrillo	Marina del Rey	Cabrillo	Cabrillo	Newport Beach	Driscoll's Wharf	Driscoll's Wharf	Santa Barbara
call sign	WYW4507	WO5232	Portable VHF	WAA9057	WTA5037	WDC2773	WUV9304	WDH8556	WDB2424
cellular phone	310/507-3186	310/507-3186	310/507-3186	310/613-5434	310/415-4006	714/307-9146	858/342-7331	858/342-7331	805/729-2727
NAV EQUIPMENT									
radar	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
fathometer	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GPS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DGPS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SAMPLING EQUIPMENT									
puller cat-head	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No
wire dia/puller (in)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
wire length/puller (ft)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
winch/grab	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
wire dia/grab (in)	3/16	5/16	N/A	3/16	N/A	3/8	1/4	1/4	0.322
wire length/grab (ft)	656	459	N/A	3000	N/A	3280	4000	5000	6562
winch/trawl	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
wire dia/trawl (in)	3/8	5/8	N/A	3/8	N/A	3/8	1/4	1/4	0.322
wire length/trawl (ft)	4-5K	4592	N/A	4000	N/A	3280	4000	5000	6562
davit	No	Yes	No	Yes	Yes	crane	Yes	Yes	No
A/H - frame	Yes	No	No	No	No	Yes	Yes	Yes	Yes
articulated crane	Yes	No	No	Yes	No	Yes	No	No	Yes
refrigerator	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
freezer	Yes	Yes	No	Yes	No	Yes	No	No	Yes

APPENDIX F

BIGHT'18 FIELD DATA FORMS

STATION OCCUPATION

BIGHT '18

Agency Code
Vessel Name
Latitude
Longitude
Arrival Time (hh:mm)
Depth (m)

Weather

Clear		Rain	
Overcast		Thunderstorm	
Partly Cloudy		Fog	
Drizzle		Fog & Drizzle	
Hazy		Smoky	

Sea State

Calm	
Choppy	
Rough	
Confused	

Salinity (ppt)
Estuary Sites only

Station ID
Date

Abandoned site?
Y or N (If Y explain in comments)

Station Fail Code
(2)

Wind
Speed (kts)
Direction (4)

Swell
Period (s)
Height (ft)
Direction (1)

Nav Type

DGPS	
GPS	
WAAS	

Equipment Type

Trawl		Core		Van Veen	
WQ		Petite Ponar		Tandem Van Veen	

Station Comments

GRAB EVENTS

(Check all sample types that apply)

#	Time (hh:mm)	Latitude (DD°MM.mmmm)	Longitude (DDD°MM.mmmm)	Depth (m)	Distance to target (m)	Grab Fail Code (7)	Penetration (cm)	Composition (3)	Odor (4)	Color (5)	Shell Hash (6) (N/L/M/H)	Infauna (Y/N)	Sed Chem (Y/N)	Grain Size (Y/N)	Sed Tox (Y/N)	Debris (Y/N)
Grab Event Comments:																
Grab Event Comments:																
Grab Event Comments:																
Grab Event Comments:																
Grab Event Comments:																
Grab Event Comments:																

Code Descriptions for the back of the Bight'18 Grab Form

(1) Directions: N, NE, E, SE, S, SW, W, NW, or XX for calm

(2) Station Fail codes: S1-None, S2-Temporary sea conditions (comment req.), S3-Temporary atmosphere (comment req.), S4-Temporary mechanical (comment req.), S5-PreAbandoned (comment req.), S6-Site On Land (comment req.), S7-Vessel safety (comment req.), S8-No Access Allowed (comment req.), S9-Prolonged rough seas, S10-Estuary Bottom salinity <27psu, S11-Too Shallow (comment req.), S12-Too many Event Failures (comment req.), S13-Anthropogenic obstruction (comment req.), S14-Natural hard bottom obstructions (comment req.), S15-Not trawlable - smooth, undulating bottom, S16-Not samplable - other (comment req.), S17-Sampling organization logistics, S18-Brackish estuary >27ppt, S19-Temporarily abandon site due to High density species incidence, S19-Permanently abandon site due to high density species incidence.

(3) Sediment Composition: Coarse sand, Fine sand, Silt/clay, Course Gravel, Fine Gravel, Shell Hash, Cobble, Mixed

(4) Sediment Odor: None (N), Petroleum (P), Hydrogen sulfide (HS), Humic (HU), Other (O, describe in comments)

(5) Sediment Color: Dark Brown, Light Brown, Gray, Black, Olive green, Red, Other

(6) Shell Hash Category: N-None, L-Low (1-25%), M-Medium (26-50%), H-High (>50%)

(7) Grab Fail Codes: G1-None. G2-Outside Radius Limit, G3-Outside Target Depth, G4-Premature closure, G5-Flipped, G6-Rocks/gravel, G7-Dead shell, G8-Live animal (comment req.), G9-Debris (comment req.), G17-Hard bottom, G11-Heavily Canted, G12-Large Humping, G13-Washed, G14-Disturbed Surface, G15-< 5 cm Penetration, G16-<= 7 cm Penetration for biology only, G10-Qther (comment req.).

STATION OCCUPATION

BIGHT '18

Agency Code
Vessel Name
Latitude
Longitude
Arrival Time (hh:mm)
Depth (m)

Weather

Clear		Rain	
Overcast		Thunderstorm	
Partly Cloudy		Fog	
Drizzle		Fog & Drizzle	
Hazy		Smoky	

Sea State

Calm	
Choppy	
Rough	
Confused	

Salinity (ppt)
Estuary Sites only

Abandoned site?
Y or N (If Y explain in comments)

Station ID
Date
Station Fail Code (2)

Wind
Speed (kts)
Direction (4)

Swell
Period (s)
Height (ft)
Direction (1)

Nav Type

DGPS	
GPS	
WAAS	

Equipment Type

Trawl	Core	Van Veen
WQ	Petite Ponar	Tandem Van Veen

Station Comments

TRAWL EVENTS

Trawl Number	Net Position	Deck Time (hh:mm:ss)	Latitude (DD°MM.mmmm)	Longitude (DDD°MM.mmmm)	Depth (m)
	Net Over				
	Start Trawl				
	End Trawl				
	Net on Deck				

Enter Values	
Wire Out (m)	
Closest Distance to target (m)	
PT Bottom Time (mm:ss)	
PT Bottom Temperature (°C)	
Trawl Fail Code (3)	

Check all that apply	
P/T Sensor Data	
Community Structure	
Tissue Chemistry	
P/T Manufacture:	
P/T Serial #:	

Comments:

	Net Over				
	Start Trawl				
	End Trawl				
	Net on Deck				

Enter Values	
Wire Out (m)	
Closest Distance to target (m)	
PT Bottom Time (mm:ss)	
PT Bottom Temperature (°C)	
Trawl Fail Code (3)	

Check all that apply	
P/T Sensor Data	
Community Structure	
Tissue Chemistry	
P/T Manufacture:	
P/T Serial #:	

Comments:

Code Descriptions for the back of the Bight '18 Trawl Form

(1) Directions: N, NE, E, SE, S, SW, W, NW, or XX for calm

(2) Station Fail codes: S1-None, S2-Temporary sea conditions (comment req.), S3-Temporary atmosphere (comment req.), S4-Temporary mechanical (comment req.), S5-PreAbandoned (comment req.), S6-Site On Land (comment req.), S7-Vessel safety (comment req.), S8-No Access Allowed (comment req.), S9-Prolonged rough seas, S10-Estuary Bottom salinity <27psu, S11-Too Shallow (comment req.), S12-Too many Event Failures (comment req.), S13-Anthropogenic obstruction (comment req.), S14-Natural hard bottom obstructions (comment req.), S15-Not trawlable - smooth, undulating bottom, S16-Not samplable - other (comment req.), S17-Sampling organization logistics, S18-Brackish estuary >27ppt, S19-Temporarily abandon site due to High density species incidence, S19-Permanently abandon site due to high density species incidence.

(3) Trawl Fail Codes: T1-None, T2-Outside Radius Limit, T3-Outside Target Depth, T4-Fouled Net (comment req.), T5-Open cod end (knot untied), T6-Trawl hit unknown obstruction, T7-Doors not contacting the bottom, T8-Torn Net, T9-Unusually low catch, T10-Improper Deck Time, T11-Improper Bottom Time, T12-Inadequate trawl track, T13-Other Trawl Failure (comment req.), T14-High density species incidence.

BIGHT '18 DEMERSAL FISH IDENTIFICATION FORM

Station: _____ **Page** _____ **of** _____

Date: _____ **Completed by:** _____

Trawl Number _____ **Failed** _____

	Species	N	Diversity Index Exclude (Y or N)	Standard Length Size Class (cm) *Use for up to 10 individuals. Use Size Class sheet for more abundant species*	FID/ Vouch	Weight (kg)		
						Gross	Tare	Net
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								

Anomaly Codes: (record as superscript to tally mark): **A** = ambicoloration, **B** = albinism, **D** = skeletal deformity, **E** = copepod eye-parasite (i.e., Phrixocephalus), **F** = fin erosion, **H** = Leeches, **L** = lesion (*describe in* Comments), **M** = Monogeneans, **N** = none, **NE** = none examined, **O** = other anomaly (*describe in* Comments), **P** = other external parasite (*describe in* Comments), **T** = tumor. Note multiple occurrences on an individual (put "- "and #). **FID** = *specimen(s) collected for further identification*, **#V** = *Number of specimens collected as species vouchers*

Comments:

QA done at station: (circle) **Yes** **No**

BIGHT '18 DEMERSAL FISH SIZE CLASS FORM

Station: _____ **Trawl Number** [ ] **Page** _____ **of** _____

Date: _____ **Completed by:** _____

Gross weight (kg) _____ **Tare Weight (kg)** _____ **Net weight (kg)** _____

Size class	Anomalies	Species:	N
1			
2			
3			
4			
5			
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30			

Anomaly Codes (*record as superscript to length measurement*): **A** = ambicoloration, **B** = albinism, **D** = skeletal deformity, **E** = copepod eye-parasite, **F** = fin erosion, **H** = Leeches, **L** = lesion (*describe in* Comments), **M** = Monogeneans, **N** = none, **NE** = none examined, **O** = other anomaly (*describe in* Comments), **P** = other external parasite (*describe in* Comments), **T** = tumor. Note multiple occurrences on an individual (put "-" and #)

Total	

Comments:

QA done for species: (circle) **Yes** **No**

ALIQUOT DATA

Species:	**N**	**Gross (kg)**	**Tare (kg)**	**Net (kg)**
Record Catch gross weights here:	*Show calculations here*			
	Catch gross wt. – Catch tare wt. = catch Net wt.			
	_____ - _____ = _____			
	(Catch Net wt. /Aliquot net wt.) x # in Aliquot = Abundance			
	_____ x _____ = _____			

All weights are to be recorded in kg.

Comments:

BIGHT '18 EPIBENTHIC INVERTEBRATE FORM

Station: _____ **Page** _____ **of** _____

Date: _____ **Completed by:** _____

Trawl Number [ ] **Failed** [ ]

	Species	N	Diversity Index Exclude Code	Anomalies	Comments	FID or Vouch	Weight (kg)		
							Gross	Tare	Net
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									

Anomaly Codes: **U** = burnspot, **P** = External Parasite, **O** = other anomaly (*describe in* Comments*)*, **W** = wasting disease. Note multiple occurrences on an individual (put "- "and #). **FID** = *specimen(s) collected for further identification,* **#V** = *Number of specimens collected as species vouchers*

Comments:

QA done at station: (circle) **Yes** **No**

ALIQUOT DATA

Species:	**N**	**Gross (kg)**	**Tare (kg)**	**Net (kg)**

Record Catch gross weights and comments here:	*Show calculations here*
	Catch gross wt. – Catch tare wt. = catch Net wt.
	_____ - _____ = _____
	(Catch Net wt. /Aliquot net wt.) x # in Aliquot = Abundance
	_____ x _____ = _____

All weights are to be recorded in kg.

ALIQUOT DATA

Species:	**N**	**Gross (kg)**	**Tare (kg)**	**Net (kg)**

Record Catch gross weights and comments here:	*Show calculations here*
	Catch gross wt. – Catch tare wt. = catch Net wt.
	_____ - _____ = _____
	(Catch Net wt. /Aliquot net wt.) x # in Aliquot = Abundance
	_____ x _____ = _____

All weights are to be recorded in kg.

ALIQUOT DATA

Species:	**N**	**Gross (kg)**	**Tare (kg)**	**Net (kg)**

Record Catch gross weights comments here:	*Show calculations here*
	Catch gross wt. – Catch tare wt. = catch Net wt.
	_____ - _____ = _____
	(Catch Net wt. /Aliquot net wt.) x # in Aliquot = Abundance
	_____ x _____ = _____

All weights are to be recorded in kg.

BIGHT '18 TRAWL DEBRIS FORM

Agency:_____ **Page**_____**of**_____

Station:_____ **Trawl #:**_____ **Date:**_____

☐ **CHECK HERE IF NO DEBRIS PRESENT IN SAMPLE**

Anthropogenic Debris - *include Brand names in Comments if known*

Plastic	Count	Comment
Bag		
Bandaid		
Balloon (mylar/latex)/Ribbon		
Bottle		
Buoy		
Cap/Lid		
Cigarette box/Wrapper		
Cup		
Filmstrip (movie)		
Fishing Line/Net		
Food Bag/Wrapper		
Polypropylene Rope		
Single use food container		
Toy		
Utensil		
Plastic Piece (unid.)		
Other Plastic *(comment req.)*		
Glass		
Beer Bottle		
Other Glass Bottle/Jar		
Glass Piece (unid.)		
Other Glass *(comment req)*		

Misc. Items/Pieces	Count	Comment
Boat/Ship/Engine Part		
Clothing		
Concrete/Asphalt		
Fiberglass		
Food		
Leather		
Lumber		
Paper		
Rag/Cloth		
Rubber		
Shoe		
Tape		
Tire		
Other Misc. *(comment req.)*		
Metal	**Count**	**Comment**
Drink Can		
Can - other		
Fishing Gear		
Wire		
Metal Piece (unid.)		
Other Metal (comment req.)		

Natural Debris

Marine Origin	Count	Est.*	Comment
Foliose Algae - not kelp			
Gorgonian Sea Fan (dead)			
Kelp Holdfast			
Kelp Stipe/Blade			
Other Foliose Algae			
Rock			
Seagrass			
Other Marine *(comment req.)*			

Terrestrial Vegetation	Count	Est.*	Comment
Leaves/Seed Pod			
Stick/Branch/Driftwood			
Other Terrestrial *(comment req.)*			

**For Natural Debris only*, if the count is >10 and an exact count cannot be made, leave the "Count" column blank and estimate the amount (M or H) in the "Est." column

Moderate: **M** = 11-100

High: **H** = >100

Completed by: _____

BIGHT '18 SAMPLE TRACKING FORM

AGENCY: _____ **Page** _____ **of** _____

DATE: _____ **COMPLETED BY:** _____

Station	Sample Description	Sample disposition

Include all stations that have been abandoned during the sampling day(s) and describe the reason for each instance of abandonment.

BIGHT '18 CHAIN OF CUSTODY FORM

Agency: _____ **Contact name:** _____

Date: _____ **Contact #:** _____

Sampled By: _____

Station	Sample type	Container type	# of Containers

Relinquished by: _____ **Accepted by:** _____

Agency: _____ **Agency:** _____

Signature: _____ **Signature:** _____

Date: **Date:**

Comments: _____

Relinquished by: _____ **Accepted by:** _____

Agency: _____ **Agency:** _____

Signature: _____ **Signature:** _____

Date: **Date:**

Comments: _____

Suggested label format for biology samples

EXAMPLE 1 Agency: LACSD Station Name: B18-100003 Gear/Split: Van Veen / 3 of 3 Date of Collection: 21 Aug 2018 Circle One: 95% ethanol OR 10% formalin	EXAMPLE 2 Agency Code: SCCWRP Station Name: B18-10000 Sample Type: Trawl Fish Voucher Date of Collection: 1 July 2018 Species: Sebastes saxicola Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin
Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin
Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin
Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin
Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________ Date of Collection: __________________ Circle One: 95% ethanol OR 10% formalin
Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________	Agency Code: ______________________ Station Name ______________________ Sample Type/Split No.______________

Date of Collection: _____ Circle One: 95% ethanol OR 10% formalin	Date of Collection: _____ Circle One: 95% ethanol OR 10% formalin	Date of Collection: _____ Circle One: 95% ethanol OR 10% formalin

Suggested additional label added to "Voucher" or "FID" specimen.

Example 1	Example 2	Example 3
Agency: LACSD ID by: D. Cadien Date: 1Aug2018 Exosphaeroma inornata	Agency: **SCCWRP** Date: **1July201**8 ID by: **D. Diehl** Ophidion scrippsae	Id. by/date: City of SD, M. Lilly, 1June2018 Taxon Name: Rhizorhagium formosum
Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____
Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____
Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____
Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____
Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____
Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____
Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____
Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____	Id. by/date ____ Taxon Name: ____

CA Halibut Sampling Form

(1) Wave tag reader over all CA Halibut caught, be sure the 'reading' symbol is displayed.
(2) If a fish is tagged the reader will immediately beep and display the tag number.
(3) If Halibut are in poor condition and unlikely to survive if released, please keep sample for otoliths.

Station ID	**Halibut TL** (mm)	**Tag #** (last 5 digits)	**Condition/Notes**	**Kept for Otoliths?**

If there are any questions/concerns please contact:
Miranda.Haggerty@wildlife.ca.gov Office: 562-342-7162 Cell: 760-807-6444

APPENDIX G

BIGHT'18 SEDIMENT SAMPLING GUIDE

Constituent	Jar Size	Jar Type	Scoop	Storage Temperature	Preservation	Holding Time	Notes
Grain Size	118 ml	Plastic snap or screwtop lid	Stainless Steel/Plastic	Refrigerated	None	6 months	100 ml sample size
TOC/TN	250 ml	Borosilicate amber glass, wide mouth, Teflon lined lid	SS	Frozen	None	1 yr	200 ml sample size (jar filled ~80%)
Metals	250 ml	Borosilicate amber glass, wide mouth, Teflon lined lid	SS/Plastic	Frozen	None	6 months Hg /1 yr all else	200 ml sample size (jar filled ~80%)
Organics (PCBs, CHCs)	125 ml	borosilicate amber glass, wide mouth, Teflon lined lid	SS	Frozen	None	1 yr	100 ml sample size (jar filled ~80%)
Organics (PAHs)	125 ml	borosilicate amber glass, wide mouth, Teflon lined lid	SS	Frozen	None	1 yr	100 ml sample size (jar filled ~80%)
Pyrethroid Pesticides	250 ml	borosilicate amber glass, wide mouth, Teflon lined lid	SS	Frozen	None	1 yr	200 ml sample size (jar filled ~80%)
PBDE	250 ml	borosilicate amber glass, wide mouth, Teflon lined lid	SS	Frozen	None	1 yr	200 ml sample size (jar filled ~80%)
Fipronils	250 ml	borosilicate amberglass, wide mouth, Teflon lined lid	SS	Frozen	None	1 yr	200 ml sample size (jar filled ~80%)
Domoic acid (DA)	250 m	borosilicate amberglass, wide mouth, Teflon lined lid	SS	Frozen	None	1 yr	200 ml sample size (jar filled ~80%) Only from Inner, mid, outer shelf
Cell Assays	250 ml	borosilicate amber glass, wide mouth, Teflon lined lid	SS	Frozen	None	1 yr	100 ml sample size (jar filled ~80%)
Toxicity	1 Teflon bag (embayments) or equivalent 6 X 1.0L	1 Teflon bag (embayments only) or equivalent 6 X 1L HDPE wide Mouth jars full of sediment	SS/Plastic	Refrigerated	None	2 weeks	6L minimum for embayment and estuaries; 3L min for offshore; sediment homogenized in bag; transport to laboratory within 3 days
Infauna	varies by sample volume	HDPE or plastic wide Mouth	N/A	Room	Relax with Epsom salts, then 10% buffered Formalin		Bring range of jar sizes, multiple jars can also be used
Meiofauna	varies by sample volume	Whirl-Pak or Ziploc bag	SS/Plastic	Refrigerated or frozen on dry ice and kept at -80°C	None		Preferred: 2-inch core,10cm deep Alternate: scoop sediment touching sides

Sample Handling Instructions

1. Grain size-100 ml plastic-refrigerated. If your laboratory is not doing analysis, ship to SCCWRP on ice.

2. TOC/TN-250 ml glass jar-frozen. If your laboratory is not doing analysis, ship to SCCWRP on dry ice. If you are contractually obligated to use a specific laboratory for analysis, you may ship it directly, but send a copy of the chain of custody to SCCWRP.

3. Metals-250 ml glass jar-frozen. If your laboratory is not doing analysis, ship to SCCWRP on dry ice. If you are contractually obligated to use a specific laboratory for analysis, you may ship it directly, but send a copy of the chain of custody to SCCWRP.

4. Organics-2 x 125 ml glass jar-frozen (CHCs and PAHs). If your laboratory is not doing analysis, ship to SCCWRP on dry ice. If you are contractually obligated to use a specific laboratory for analysis, you may ship it directly, but send a copy of the chain of custody to SCCWRP.

5. Pyrethroid pesticides - 250 ml glass jar-frozen, ship to SCCWRP on dry ice. If you are contractually obligated to use a specific laboratory for analysis, you may ship it directly, but send a copy of the chain of custody to SCCWRP.

6. PBDE-250 ml glass-frozen. If your laboratory is not doing analysis, ship to SCCWRP on dry ice.

7. Fipronil-250 ml glass-frozen. If your laboratory is not doing analysis, ship to SCCWRP on dry ice.

8. Domoic acid (DA) - 250 ml glass-frozen. Ship to SCCWRP on dry ice.

9. Cell assay - 250 ml glass-frozen. Ship to SCCWRP on dry ice.

10. Toxicity - 1 Teflon bag or an equivalent to 8 X 1L plastic HDPE wide mouth containers - refrigerated. Teflon bag homogenization is required in embayment sites only, this is not a requirement for offshore stations. Note that in embayment sites, chemistry (2 L) and toxicity (6 L) sediment are homogenized together before distribution. Ensure the bag is big enough to knead and mix sediment thoroughly. If your laboratory is not doing analysis, ship to SCCWRP on ice within 72 hr of collection. If your laboratory is doing analysis on *Eohaustorius* and not *Mytilus*, retain three liters and ship the Teflon bag to SCCWRP. Call Darrin Greenstein (1-714-755-3224) with any questions.

11. Meiofauna – The preferred method uses a 2-inch plastic core for quantification purposes but the alternative scoop sampling method allows qualitative analysis. The main storage method is on ice or refrigerated until long-time storage at -80°C. Field teams can flash freeze samples on dry ice, but sample should be kept on dry ice until long-time storage at -80°C. Sample can be shipped to SCCWRP or contact Holly Bik:

Department of Nematology
University of California, Riverside
3401 Watkins Drive
Riverside, CA 92521
Email: holly.bik@ucr.edu
Phone: (+1) 951-827-4230

APPENDIX H

BIGHT'18 TRAWL WIRE SCOPE GUIDE

[1] Power function was 16.139219 * ($D^{-0.297449384}$) based on method protocol where D = station depth.

Station Depth (m)	Depth/Wire Scope[1]	Wire (m)	Winch[2] Time (min)	Initial Wire[3] Depth (m)	Minutes to Bottom Lag[4]	Minutes Off Bottom Lag[4]	10 Min Trawl Est Deck Time (min)
3	11.6	35	0.85	7.0	-0.31	1.53	8.16
5	10.0	50	1.21	10.1	-0.38	1.56	8.06
10	8.1	81	1.98	16.4	-0.48	1.63	7.89
20	6.6	132	3.22	26.6	-0.50	1.77	7.72
30	5.9	176	4.28	35.4	-0.41	1.92	7.67
40	5.4	215	5.24	43.3	-0.25	2.06	7.69
50	5.0	252	6.12	50.7	-0.05	2.20	7.75
60	4.8	286	6.96	57.6	0.18	2.34	7.84
70	4.6	319	7.76	64.2	0.44	2.48	7.96
80	4.4	351	8.52	70.5	0.72	2.63	8.10
90	4.2	381	9.25	76.6	1.02	2.77	8.25
100	4.1	410	9.97	82.5	1.33	2.91	8.42
110	4.0	439	10.66	88.2	1.66	3.05	8.61
120	3.9	466	11.33	93.7	1.99	3.19	8.80
130	3.8	493	11.98	99.2	2.34	3.33	9.01
140	3.7	520	12.62	104.5	2.70	3.48	9.22
150	3.6	545	13.25	109.6	3.06	3.62	9.44
160	3.6	571	13.86	114.7	3.44	3.76	9.68
170	3.5	596	14.47	119.7	3.82	3.90	9.91
180	3.4	620	15.06	124.6	4.20	4.04	10.16
190	3.4	644	15.64	129.5	4.59	4.19	10.41
200	3.3	668	16.22	134.2	4.99	4.33	10.67
210	3.3	691	16.78	138.9	5.40	4.47	10.93
220	3.2	714	17.34	143.5	5.81	4.61	11.19
230	3.2	736	17.89	148.1	6.22	4.75	11.47
240	3.2	759	18.43	152.5	6.64	4.90	11.74
250	3.1	781	18.97	157.0	7.06	5.04	12.02
260	3.1	803	19.50	161.4	7.49	5.18	12.31
270	3.1	824	20.02	165.7	7.92	5.32	12.59
280	3.0	846	20.54	170.0	8.35	5.46	12.89
290	3.0	867	21.06	174.2	8.79	5.60	13.18
300	3.0	888	21.56	178.4	9.23	5.75	13.48
310	2.9	908	22.07	182.6	9.67	5.89	13.78
320	2.9	929	22.56	186.7	10.12	6.03	14.09
330	2.9	949	23.06	190.8	10.56	6.17	14.39
340	2.9	969	23.55	194.8	11.02	6.31	14.70
350	2.8	989	24.03	198.8	11.47	6.46	15.02
360	2.8	1,009	24.51	202.8	11.93	6.60	15.33
370	2.8	1,028	24.99	206.8	12.39	6.74	15.65
380	2.8	1,048	25.46	210.7	12.85	6.88	15.97
390	2.7	1,067	25.93	214.6	13.32	7.02	16.29
400	2.7	1,086	26.39	218.4	13.78	7.17	16.62
410	2.7	1,105	26.85	222.2	14.25	7.31	16.94
420	2.7	1,124	27.31	226.0	14.72	7.45	17.27
430	2.7	1,143	27.77	229.8	15.20	7.59	17.60
440	2.6	1,162	28.22	233.5	15.67	7.73	17.94
450	2.6	1,180	28.67	237.2	16.15	7.87	18.27
460	2.6	1,198	29.12	240.9	16.63	8.02	18.61
470	2.6	1,217	29.56	244.6	17.11	8.16	18.95
480	2.6	1,235	30.00	248.2	17.59	8.30	19.29
490	2.6	1,253	30.44	251.9	18.07	8.44	19.63
500	2.5	1,271	30.87	255.5	18.56	8.58	19.97

[2] Average agency winch rate was 41.16 m/min.

[3] Average descent rate was 8.3 m/min. Average lag on bottom decent rate changed +1.6 times.

[4] Used: (Station Depth – Wire Depth) / (Avg Descent Rate * Avg Change Rate Factor).

[5] Used: regression formula: 1.4903252151 + (0.0141874591*Station Depth)) based on Lag Off vs. Depth data

APPENDIX I

BIGHT'18 QA/QC AUDIT FORMS

APPENDIX I

Bight'18 FIELD SAMPLING QA/QC AUDIT FORMS

Bight'18 Grab Audit Checklist

Organization: _____ Date: _____

Boat: _____

Tasks	Check for Yes	NA = Not observed, available, applicable Comments
Pre-survey Field Audit	☐	
- organization supposed to use basic B'18 protocols		
In-Survey Field Audit	☐	
Within sampling Index (July 1 – Sept 30)	☐	
Sampled Bight'18 station	☐	
What strata?		_____
Personnel		
Who is the Cruise Leader?		_____
Crew safely hands equipment	☐	
Crew knows methods in manual	☐	
Crew prepared	☐	
Crew knows chain-of-command	☐	
Any observed trouble shooting	☐	
Crew has datasheets/manual/computer	☐	
Crew trained by Lead Scientist	☐	
Equipment		
Modified Van Veen Grab (single/double)	☐	
Material (galvanized/stainless)?		_____
Wash table/screen boxes (1mm)	☐	
Raw water screened	☐	
Communications (phone/others)	☐	
Boat has GPS (handheld/WAAS/DGPS)	☐	
Boat has fathometer	☐	
Boat has life vests/ring	☐	
CDFW Collection Permit aboard	☐	
Site acceptability		
Within radius (100m/200m)	☐	
Within 10% depth (neglect <10m)	☐	
Estuary stratum – checked bottom salinity (>27ppt)	☐	
Brackish estuary stratum – checked bottom salinity (<=27ppt)	☐	
Greater than minimum depths? (Min depths: 6m-coastal, 3m-bay, 1m-estuary, none-brackish)	☐	
Followed manual for site acceptability	☐	
Intermittent success (9 if <500m)	☐	
Intermittent lower slope success (6 if >500m)	☐	
If site abandonment, was it valid	☐	
Was site completed normally	☐	
Benthic Sampling		
Grab lowered at appropriate speed	☐	
Crew could tell when grab hit bottom	☐	
Crew checked sample condition (surface disturbance/evenness)	☐	_____

Bight'18 Grab Audit Checklist

Organization: _____ Date: _____

Boat: _____

Tasks	Check for Yes	NA = Not observed, available, applicable Comments
Crew checked sample penetration	☐	
Hanging debris cut off, inside retained	☐	
Exterior debris discarded	☐	
Overlying water drained carefully	☐	
Penetration depth measured (nearest 0.5 cm)	☐	
Sediment described properly	☐	
Datasheet/computer input observed	☐	
Biology grab		
Was biology grab done first	☐	
Biology grab >=7cm penetration	☐	
Water drained from grab retained/sieved	☐	
Sediment thoroughly removed from sample	☐	
Estuary-sediment removal done on land	☐	
Off site screening done within 90 min	☐	
Retained material transferred to jars	☐	
Examined screen/used forceps	☐	
30% headspace in jars	☐	
Internal/external labels – splits	☐	
30 minute relaxant treatment	☐	
Formalin added after treatment (10%)	☐	
Chemistry grabs		
Crew checked similar sediment types	☐	
Crew checked similar penetration depths	☐	
Chemistry grab >= 5 cm penetration	☐	
Scoop material (stainless steel/plastic)?		_____
SS/plastic acceptable for TOC/Grain size	☐	
Surface sediment only collected	☐	
Top 2 cm for the offshore	☐	
Top 5 cm for the bays, harbors, estuaries	☐	
While scooping, avoided 1 cm of grab wall	☐	
Offshore multiple grabs distributed evenly	☐	
Embayments: sed/tox homogenized	☐	
Circle samples taken (Grain Size, TOC, Metals, Organics, Pyreth, PBDE, Friponil, Domoic acid)		
Were samples iced in the field	☐	
Planning to return samples to lab (24 hrs.)	☐	
Jar with Teflon-lined lid	☐	
Jars labeled appropriately	☐	
Toxicology grabs		
Sediment not homogenized in field	☐	
Scoop material (stainless/plastic)?		_____
SS/plastic scoop acceptable for use		
Surface sediment only collected	☐	
Top 2 cm for the offshore	☐	
Top 5 cm for bays, harbors, estuaries	☐	
Offshore multiple grabs distributed evenly	☐	

Bight'18 Grab Audit Checklist

Organization: _____ Date: _____

Boat: _____

Tasks	Check Yes
Embayments: sed/tox homogenized	
Tox: Teflon bag or jars HDPE w/ Teflon-lined lids	
Jars labeled appropriately	
Circle samples taken (Eohaustorius, Mytilus)	
All samples iced/refrigerated	
QAQC	
Grab scrubbed out between sites	
Grab washed out between sites	
Scoops cleaned between sites	
Scoops placed in clean plastic bags	
Scoops rinsed before use – ambient water	
Left-over sediment dumped over side	
Where (at site, underway, next site)? _____	
End of Day/Transport	
Sample tracking observed	
Shipped samples iced in cooler	
Chain of Custody Form completed	
Datasheet/Tablet/Computer data check	
Special Studies	
Observed special study sampling	

Comments:

Bight'18 Otter Trawl Checklist

Agency: _____ **Vessel:** _____ **Date:** _____

EQUIPMENT AND PROCEDURES	Yes	No	N/A	Comments
Equipment Specifications				
Net Headrope (7.6 m)				
Body Mesh Size (4.1 cm)				
Cod-end Liner Mesh Size (1.3 cm)				
Non-crushable Floats				
Footrope Chain				
Otter Boards (51 x 76 cm or 20 x 30 in.)				
Bridle Length (22.9 m)				
P/T Sensor Mounted on Door				
P/T Reader/software/computer				
Other				
Trawling Procedures				
Properly Deployed				
Proper Wire Scope				
Checked Bottom Time (target 10 min coast, 5 min bays)				
Proper Trawl Decisions (< 8 min on attempted 10 min trawl)				
Proper Trawl Decisions (15-20 min on attempted 10 min trawl)				
Proper Trawl Decisions (> 20 min on attempted 10 min trawl)				
Successful Trawl				
Qualified Crew				
Other				

Notes:

_____

_____

BIGHT'18 FIELD QA/QC

Trawl Processing Equipment Checklist

Agency: _____ **Vessel:** _____ **Date:** _____

EQUIPMENT	Yes	No	N/A	Comments
Sorting Buckets/Trays				
Live Holding Tanks (optional)				
Measuring Boards				
Data Sheets/Field Computer System				
Trawl Cover Sheets				
Trawl Fish Species Sheets				
Trawl Fish Size Class Sheets				
Trawl Invertebrate Species Sheets				
Trawl Debris Sheets				
Tare Container				
Spring Scales				
3 kg				
15 kg				
Other				
Other				
Field Guides and Aids				
Miller and Lea (1972)				
Eschmeyer et al. (1983)				
Kramer et al. (1995) (flatfishes)				
Allen (1977) (juvenile rockfishes)				
Orr et al. (2000) rockfishes				
Other				
Field ID Tool Kit				
Wide-mouth Jars (Plastic)				
Plastic Bags				
10% Buffered Formalin				
Freezer or Ice Chest				
Other _____				
_____				
_____				

SPRING SCALE CALIBRATION CHECK

	Weight (kg)				
Test Weight	**Scale A**	**Scale B**	**Scale C**	**Scale D**	**Scale E**
0.15 kg					
0.30 kg					
0.45 kg					

BIGHT'18 FIELD QA/QC

Trawl Processing Procedures Checklist

Agency: _____ **Vessel:** _____ **Date:** _____

EQUIPMENT	Yes	No	N/A	Comments
Proper Trawl Acceptance				
Removal of All Organisms from Net				
Species Identifications:				
Qualified Staff				
Accurate ID of Common Species				
Return of Difficult Species to Lab				
Length Measurement:				
Proper Designation of Size Class				
Proper Data Sheet Recording for <10 Fish				
Proper Recording on Size Class Data Sheet				
Bony Fish (Standard Length)				
Sharks, Rays, Ratfish (Total Length)				
Stingrays (Wingspan)				
Weight Measurement:				
Scales Calibrated				
Tare Bucket Weight Checked				
Proper Weighing Procedures:				
Species Greater than 0.1 kg				
Species Less than 0.1 kg				
Invertebrate Counts Made				
Invertebrate Counts from Weights				
Anomaly Examination Conducted				
Proper Anomaly Identifications				
Proper Anomaly Notation on Data Sheets				
Debris Assessment Conducted				
FID/Voucher Preservation				
10% Buffered Formalin				
Slitting Body Cavity of Fish				
Proper Labeling				
Proper Photographic Techniques				
Photo Log				
Completion of Data Sheets				
Trawl Cover Sheets				
Trawl Fish Species Sheets				
Trawl Fish Size Class Sheets				
Trawl Invertebrate Species Sheets				
Trawl Debris Data Sheets				

BIGHT'18 FIELD QA/QC

Fish and Invertebrate Identification and Processing Audit

Agency: _____ **Vessel:** _____ **Date:** ___

Trawls

Attempted	- - - -
Successful	- - - -
Percent	- - - -

Species Identification

Number Species Examined	
Number Species Correct	
Percent Species Correct	

Anomaly Identification

No. Anomalies Examined	
No. Anomalies Correct	
% Anomalies Correct	

Problem Anomalies:

Incorrect ID	**Correct ID**
-	-
-	-
-	-
-	-
-	-

	Incorrect ID	**Correct ID**

	Species - -	**Count** Listed	Audited	% Diff.	**Size** Listed Audited %Diff.	**Weight(kg)** Listed	Audited	%Diff.
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

Comments _____

_____

_____

_____

Completed by

BIGHT'18 TRAWL DEMERSAL FISH - QUALITY CONTROL FORM

Station: _____ **Trawl #:** _____ **Agency:** _____

Date: _____ **Previously Measured by:** _____

Re-Measured by: _____

Original Gross weight (kg) _____ **Tare Weight (kg)** _____ **Net weight (kg)** _____

QC Re-weigh weight (kg) _____ **Tare Weight (kg)** _____ **Net weight (kg)** _____

Size Class	Original Species: QC Re-ID: Re-ID Count	+/-2 mm	Tweener count	Anomalies
1		1-2		
2		2-3		
3		3-4		
4		4-5		
5		5-6		
6		6-7		
7		7-8		
8		8-9		
9		9-10		
10		10-11		
11		11-12		
12		12-13		
13		13-14		
14		14-15		
15		15-16		
16		16-17		
17		17-18		
18		18-19		
19		19-20		
20		20-21		
21		21-22		
22		22-23		
23		23-24		
24		24-25		
25		25-26		
26		26-27		
27		27-28		
28		28-29		
Total		Total		

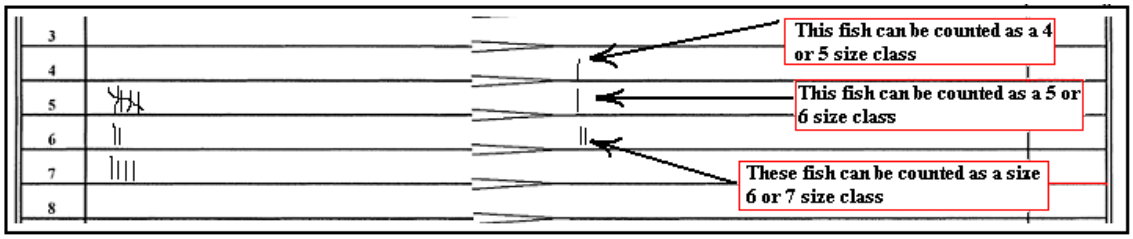
Other Species found in sample:			QA/QC Acceptance	Pass	Fail	Initials
			Identification			
			Count			
			Length			
			Biomass			
Other species Weight (kg)			Pathology			
Gross	Tare	Net	Notes:			

Anomaly Codes (*record as superscript to length measurement*): **A** = ambicoloration, **B** = albinism, **D** = skeletal deformity, **E** = copepod eye-parasite (i.e., *Phrixocephalus*), **F** = fin erosion, , **H** = Leeches, **L** = lesion (*describe in* Comments), **M** = Monogeneans, **O** = other anomaly (*describe in* Comments), **P** = other external parasite (*describe in* Comments), **T** = tumor. Note multiple occurrences on an individual put "-"and #

Using the "Tweener" count section of the QAQC Form

This form closely resembles regular "size class data sheets" except for the allowance of measurements that fall directly near an integer value of a size class. This "tweener" method should be used by the auditor for the recheck/assessment, not for subsequent retests of a species by field crew. To use the form, any measured fish that falls +/- 2mm on either side of a centimeter mark (integer), place a tally mark on the right side of the form straddling the two sizes in question. For example, a fish measuring 59 mm would have a tweener tally in the 5-6 cm category. A fish measuring 63 mm would have a normal tally in the 7 cm size class category.

Measurement errors generally occur with fish measured near the centimeter mark. These errors tend to be subjective, so the "tweener" method helps auditors reduce the ambiguity. To evaluate the crew's performance, the auditor compares normal size class tallies. Any differences can be the result of "tweeners" and moves tweener tallies up or down once. If a 10% or greater difference still exist, the crew has failed the initial QC assessment and needs to re-measure the batch of fish again. Another failure results in spot training by the Cruise leader and re-measurements until error is less than 10%. The subsequent trawl is categorized as another QC trawl with auditor assessing the crew again. The auditor does not have to use the tweener (right-side) section, so all size-class measurements will be recorded on the left-side of the sheet.



BIGHT'18 TRAWL INVERTEBRATE - QUALITY CONTROL FORM

Station: _____ **Trawl #:** _____ **Agency:** _____

Date: _____ **Previously Measured by:** _____

Re-Measured by: _____

Species #1

Original Species name:				
QC Re-ID Species name:				
Comments/Anomalies	**N**	**QC Re-weigh (kg)**		
		Gross	**Tare**	**Net**
Other species found in lot				
1				
2				
3				

Anomaly Codes: **B** = burnspot, **P** = External Parasite, **W** = wasting disease, **O** = other anomaly (*describe)* _____

Species #2

Original Species name:				
QC Re-ID Species name:				
Comments/Anomalies	**N**	**QC Re-weigh (kg)**		
		Gross	**Tare**	**Net**
Other species found in lot				
1				
2				
3				

Anomaly Codes: **B** = burnspot, **P** = External Parasite, **W** = wasting disease, **O** = other anomaly (*describe)* _____

Species #1

QA/QC Acceptance			
Metric	**Pass**	**Fail**	**Initials**
ID			
Count			
Biomass			
Anomalies			

Species #2

QA/QC Acceptance			
Metric	**Pass**	**Fail**	**Initials**
ID			
Count			
Biomass			
Anomalies			

Notes:

ALIQUOT RECORDING AND CALCULATIONS WORKSHEET (If necessary)

Species 1

ALIQUOT DATA

Species:	**N**	**Gross (kg)**	**Tare (kg)**	**Net (kg)**
Record Catch gross weights here:	*Show calculations here*			
	Catch gross wt. – Catch tare wt. = catch Net wt.			
	_____ - _____ = _____			
	(Catch Net wt. /Aliquot net wt.) x # in Aliquot = Abundance			
	_____ **x** _____ **=** _____			

All weights are to be recorded in kg.

Species 2

ALIQUOT DATA

Species:	**N**	**Gross (kg)**	**Tare (kg)**	**Net (kg)**
Record Catch gross weights here:	*Show calculations here*			
	Catch gross wt. – Catch tare wt. = catch Net wt.			
	_____ - _____ = _____			
	(Catch Net wt. /Aliquot net wt.) x # in Aliquot = Abundance			
	_____ **x** _____ **=** _____			

All weights are to be recorded in kg.

Error Calculation Examples

1 Fish count:

Calculated as percent difference between total numbers of fish in original count vs. QA/QC recount.

Initial count: 46 specimens of *Sebastes saxicola*
QA/QC recount: 44 specimens of *Sebastes saxicola*
Percent error: 46 - 44 = 2
(2 / 46)*100 = 4.3% error
Acceptability: Yes
Report:Note percent error and sign off on QA/QC sheet under "QA/QC Acceptance" - "Count". Attach QA/QC sheet to original data record. Enter QA/QC data into computer record.
From DBM or
QA/QC Officer: included in notebook and as comment in Event table.

2 Fish Size-class measurement:

Calculated as a percent difference between original report and QA/QC size class notations.

Example for species *Microstomus pacificus*: 36 specimens were distributed over 12 size classes as follows:

QA/QC

Size	Initial abundances	Abundances	Difference
4	2	3	1
5	0	1	1
6	3	3	0
7	0	0	0
8	5	5	0
9	0	1	1
10	2	1	1
11	4	4	0
12	6	7	1
13	7	6	1
14	2	2	0
15	1	2	1
16	4	3	1

Total discrepancies = 4

Percent error: 4 specimen discrepancies / 36 specimens = 11.1% size class error
Acceptability: No
Results: Re-measure until MQO is met. In this case, until two readings errors are less than 10%.

Report: Note percent error and sign off on QA/QC sheet under "QA/QC Acceptance" - "Length". Attach QA/QC sheet to original data record. Enter into QA/QC data into computer record.

From DBM or QA/QC Officer: Included in notebook and as field event comment.

Note: Each of the above circled pairs is considered a single error. Correction of one of the paired errors results in the pair being correct.

3 Biomass QA/QC:

Calculated as percent difference between original report and QA/QC size class notations. Weights of 1.0 kg or less are expected to be within +/- 0.1 kg of the QA/QC weight. Net weights greater than 1.0 kg will need to be with 10% of a QA/QC weight. Percent error calculated between these determinations is used to determine acceptability.

Example: Species *Lyopsetta exilis* initially weighs 1.5 kg. Re-weighed, it measures 1.4 kg

Percent error: 1.5 – 1.4 = 0.1 differences
0.1 / 1.5 = 6.6 % error

Acceptability: Yes

Results: conserve with files

Report: Note percent error and sign off on QA/QC sheet under "QA/QC Acceptance" - "Biomass". Attach QA/QC sheet to original data record. Enter into computer record.

From DBM or QA/QC Officer: included in notebook and as field event comment.

4 Pathology:

Example: Species *Citharichthys sordidus* has 19 individuals, one with an eye parasite. Recount reveals the same individual with an eye parasite and a skeletal deformity.

Initial count: 19 individual non-abnormality
1 individual eye parasite

QA/QC recount: 19 individual non-abnormality
1 individual eye parasite and skeletal deformity

Percent error: 1 individual with mismatched anomaly
(1 / 19)*100 = 5.26% error

Acceptability: No

Results: Re measure until two closest discrepancy results agree by > 95% and select fish group measured as data reported.

Report:Note percent error and sign off on QA/QC sheet under "QA/QC Acceptance" - "Pathology". Attach QA/QC sheet to original data record. Enter into computer record.

From DBM or QA/QC Officer: included in notebook and as field event comment.

APPENDIX J

BIGHT'18 SAMPLING ORGANIZATION AND ANALYTICAL LABORATORY CONTACTS

SAMPLING ORGANIZATION CONTACTS

Aquatic Bioassay and Consulting Laboratories
29 North Olive St.
Ventura, CA 93001
Karin Wisenbaker (805) 643-5621 x17
karin@aquaticbioassay.com karin@aquaticbioassay.com

City of Los Angeles, Environmental Monitoring Division
12000 Vista del Mar
Playa del Rey, CA 90293
Curtis Cash (310) 648-5269 (office) or (310) 309-7143 (cell)
curtis.cash@lacity.org

City of San Diego
Public Utilities Department,
Environmental Monitoring and Technical Services Division.
2392 Kincaid Rd.
San Diego, CA 92101
Mike Kelly (619) 758-2342
mkelly@sandiego.gov
Adriano Feit (619) 758-2377
afeit@sandiego.gov

Los Angeles County Sanitation Districts
Marine Biology Laboratory
24501 S. Figueroa Street
Carson, CA 90745
Chase McDonald (310) 830-2400 x 5601
cmcdonald@lacsd.org

MBC Aquatic Sciences, Inc.
3000 Red Hill Ave.
Costa Mesa, CA 92626
Rose Cardoza (714) 850-4830
rcardoza@mbcaquatic.com

Orange County Sanitation District
10844 Ellis Ave.
Fountain Valley, CA 92728
Ken Sakamoto (714) 593-7470
ksakamoto@ocsd.com

Southern California Coastal Water Research Project
3535 Harbor Blvd.
Suite 110, Costa Mesa, CA 92626
Dario Diehl (714) 372-3212
dariod@sccwrp.org

Weston Solutions, Inc.
5817 Dryden Place, Suite 101
Carlsbad, CA 92008-2433
Michelle Mattson (760)795-6984
Michelle.Mattson@westonsolutions.com

Wood Environmental and Infrastructure Solutions (formerly Amec)
9210 Sky Park Ct., Suite 200
San Diego, CA 92123
Chris Stransky (858) 300-4350
chris.stransky@woodplc.com

Anchor QEA, LLC
27201 Puerta Real, Suite 350
Mission Viejo, California 92691
Andrew Martin (949) 334-9630
amartin@anchorqea.com

APPENDIX K

BIGHT'18 SCCWRP SAMPLE SHIPPING INFORMATION

Bight'18 Sample Shipping Information

Contact: Darrin Greenstein
Phone: (714) 755-3224
FAX: (714) 755-3299

Shipping Address:

SCCWRP
3535 Harbor Blvd., Suite 110
Costa Mesa, CA 92626
Attn: Darrin Greenstein

In advance of any shipment of samples, please email Darrin Greenstein (darring@sccwrp.org) a list of the samples he can expect to receive.

Please call ahead to make an appointment to deliver samples in person to SCCWRP. If Darrin is not available to receive the call, leave a message and he will automatically be paged. Those making deliveries with prearranged appointments will be processed before others without one. There will be someone at SCCWRP between 7:00 a.m. and 5:00 p.m. Monday through Friday. Arrangements can be made to receive samples outside of normal working hours, or on weekends if necessary.

If samples are shipped using a commercial carrier, such as Fed-Ex, please FAX Darrin a copy of the weigh bill. This proved useful in previous surveys to track/locate samples that that were misplaced.

Darrin will be the main contact for coordinating sample handling at SCCWRP. If Darrin is not available, please contact Dana Shultz (714) 755-3264 or Miranda Roethler (714) 755-3213.

APPENDIX L

BIGHT'18 BRACKISH ESTUARY CORE AND EXTENSION POLE CONSTRUCTION SOP PLUS SAMPLING GUIDE

By David Gillett

Hand Corer Device Construction SOP

Building Materials:

18" – Schedule 40 PVC pipe - https://www.homedepot.com/p/4-in-x-10-ft-PVC-Sch-40-DWV-Plain-End-Pipe-30577/203308683

4" – galvanized steel riser clamps - https://www.mscdirect.com/product/details/02164127

4" – rubber pipe cap w/ galvanized tightening clamp - https://www.homedepot.com/p/CHERNE-4-in-PVC-Pipe-Cap-270784/100204814

Saw w/ PVC blade

Rasp file, Dremel tool, etc

Duct tape, some manner of waterproof tape, or heavy rubber band

Construction:

1. If the pipe is longer than 18" trim to appropriate length. Eighteen inches a recommendation, but a few inches shorter or longer is fine if ergonomically more comfortable.
2. Using the file or Dremel tool or other preferred device, cut a bevel at one end of the tube, this will become the bottom (Fig 1). This will aid in penetrating the sediment.
3. Measure 10cm up from the bottom of the core and place a wrap of tape or rubber band (Fig 2). This will be the minimum depth guide for inserting the core into the sediment.
4. Place the riser clamp approximately 12 – 15 inches from the bottom of the core (Fig 2). This will be the handle for inserting and removing the core from the sediment.
5. Consider wrapping the ends of the riser in waterproof electrical tape to make the handle more comfortable to push and pull on.
6. Ensure rubber cap fits the end of the corer.

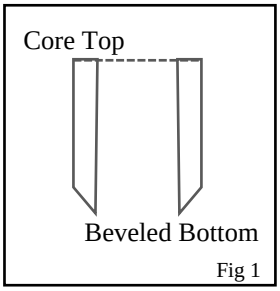


Fig 1

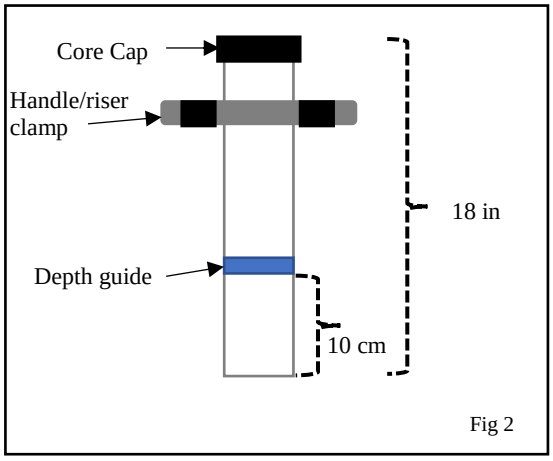


Fig 2

Pole Extension Construction SOP for the Hand Corer

Building Materials

10ft length of 3" diameter PVC pipe

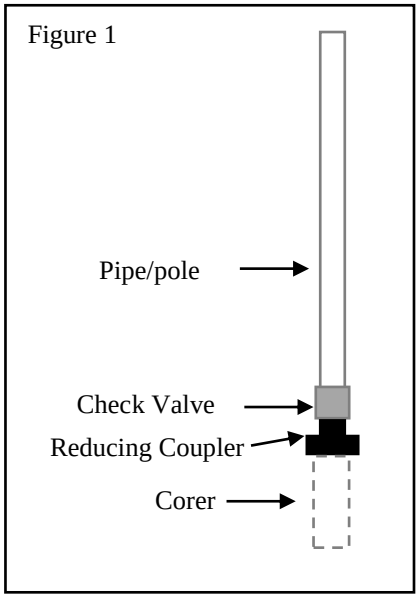
4"-3" rubber reducing coupler - https://www.zoro.com/fernco-flexible-coupling-for-pipe-size-6-x-3-1056-63/i/G2779637/

3" diameter spring-load check valve

Construction:

1. Attach check valve to one end of the pipe (compression or cement fitting). Make sure direction of the valve is flow up the pipe from the bottom.
2. Attach 3"side of couple to the check vale. Tighten the gasket.
3. Mark 2-cm increments along the length of the pipe. This will be used to estimate core penetration into the sediment

Figure 1



Low Salinity Estuary Hand Core Sampling Protocol for Biology

1. *Wadeable Scenario*
    a. Assemble core with handle place 12-15 inches from the bottom of the core. Ensure handle bolts are tight
    b. Wade into approximate sample location. **Make sure you do not walk over where the sample is to be collected**
    c. Push core into the sediment, feeling for when the 10-cm marker on the core reaches the sediment surface. If possible, insert beyond 10 cm, but no more than 15cm.
    d. When core is in the sediment to the appropriate depth, <u>place cap on top of core</u>. <u>Tighten gasket to create a water-tight seal.</u>
    e. Gently pull core from the sediment. It may require some jostling and rocking of the core back and forth to break the seal with the sediment.
    f. Keep the core vertical as you pull it out of the water. As the bottom of the core breaks the surface of the water, use your hand or a wide flat object to prevent any slippage of the sediment out of the tube
    g. Place the corer in or over the sieving device: stacked screens of 1 mm and 0.5 mm.
    h. Loosen the core cap, allowing the sediment to slide out. Gently rinse the insides of the core into the sieve.
    i. If the sample looks less than the minimum required depth, than collet a new core.
    j. Process as normal. Put contents from each screen into separate jars.

2. *Non-Wadeable Pole scenario*
    a. Assemble the coupler to the pole.
    b. Attach the core to the wide side of the coupler. Make sure that the core is seated all the way into the coupler and that the gaskets are tight.
    c. Place the pole+corer over the side of the boat, gently resting at the sediment surface.
    d. Note the approximate cm mark of the water along the pole, this is the starting point.
    e. Gently push the core into the sediment at least 10cm and no more than 15cm, approximating the distance with the 2cm markings on the pole.
    f. Make sure the core goes into the sediment vertically and the pole+core doesn't flex out at the point of the coupler
    g. Gently pull core from the sediment. It may require some jostling and twisting of the core to break the seal with the sediment.
    h. Keep the core vertical as you pull it out of the water. As the bottom of the core breaks the surface of the water, use your hand or a wide flat object to prevent any slippage of the sediment out of the tube
    i. Place the corer in or over the sieving device: stacked screens of 1 mm and 0.5 mm.
    j. Remove the core from the pole, allowing the sediment to slide out. Gently rinse the insides of the core into the sieve.

k. If the sample looks less than the minimum required depth, than collet a new core.
l. Process as normal. Put contents from each screen into separate jars.

3. Non-Wadeable Grab Scenario

a. Deploy the Van-Veen as normal
b. Once it is back on board, quick open the top flap and insert the corer into the sample as close to the mid-line/pivot of the grab as possible.
c. Place the rubber cap on top of the corer and tighten the gasket.
d. Gently pull the core up out of the grab, place your hand or a wide flat object across the bottom of the core once it is clear to prevent any slippage of the sediment out of the tube.
e. Place the corer in or over the sieving device: stacked screens of 1 mm and 0.5 mm.
f. Remove the core from the pole, allowing the sediment to slide out. Gently rinse the insides of the core into the sieve.
g. If the sample looks less than the minimum required depth, than collet a new core.
h. Process as normal. Put contents from each screen into separate jars.

APPENDIX M

Bight'18 SEDIMENT SAMPLING GUIDE FOR CHARACTERIZING MEIOFAUNAL ASSEMBLAGES IN THE SOUTHERN CALIFORNIA BIGHT

Project Lead: Holly Bik (UC Riverside)

Bight 2018 Sampling Protocol for Meiofauna Leverage Study

Shore-based Sampling (Push Coring by Hand)

- Push Coring by hand should be carried out using PVC core tubes or similar (e.g. plastic coring tubes 5-7cm in diameter).
- Hand Cores should be pushed approximately 15cm depth into the sediment and carefully removed. The **top 10cm fraction** of sediment from PVC core tubes should be sliced off and placed directly into a plastic bag (Whirl-Pak or Ziploc bag). In order to avoid cross-contamination, do not transfer the bottom ~2cm of the core that may have come into contact with contaminated surfaces .
- Collected core samples should be kept cool on ice or frozen immediately on dry ice upon collection. Frozen/chilled cores should be transferred into -80°C storage as soon as possible after collection.
- Cores should be collected from relatively flat patches of sediment, where possible. Before inserting core into the sediment, visually inspect the surrounding area and avoid coring on top of large invertebrates, burrows, bioturbation mounds, or biological/artificial debris (e.g. piles of shells, rocks or plastic).
- PVC core tubes, slicing plates, and extruder should be washed thoroughly in seawater between each replicate and between sample sites, to avoid cross-contamination.
- Bight sampling location and sample code (e.g. replicate number) should be written clearly in Sharpie marker on the outside of each plastic bag.

Off Shore Sampling (Van Veen Grabs, Box Cores, or similar)

- Sub-cores from grabs should be collected using PVC core tubes or similar (e.g. plastic coring tubes 5-7cm in diameter).
- Cores that come into contact with the edges of the Van Veen Grab or Box Core are acceptable for this meiofaunal leverage study.
- Hand Cores should be pushed approximately 15cm depth into the sediment and carefully removed. The **top 10cm fraction** of sediment should be placed directly into a plastic bag (Whirl-Pak or Ziploc bag). In order to avoid cross-contamination, do not transfer the bottom ~2cm of the core that may have come into contact with contaminated surfaces.
- Alternatively, if there is not enough surface area remaining to collect a whole core horizon from the offshore grab (e.g. the diameter of a PVC core tube), scoops of any remaining surface sediment can be transferred into Whirl-Pak or Ziploc bag. ***Collection of non-quantitative sediment from offshore grabs is preferable to losing a sample site altogether.*** Data from as many Bight samples sites as possible are needed in order to accurately quantify meiofaunal species diversity and geographic patterns.
- Collected core samples should be kept cool on ice or frozen immediately on dry ice upon collection. Frozen/chilled cores should be transferred into -80°C storage as soon as possible after collection.
- PVC core tubes should be washed thoroughly in seawater between each replicate and between sample sites, to avoid cross-contamination.
- Bight sampling location and sample code (e.g. replicate number) should be written clearly in Sharpie marker on the outside of each plastic bag. ***Please indicate any deviations from standard coring on the outside of the plastic bag (e.g. scooping surface sediment as opposed to coring with a PVC tube).***

Characterizing Meiofaunal Assemblages in the Southern California Bight

Background: Benthic meiofaunal species (organisms 45μm–1mm, including nematodes, copepods, tardigrades, other "minor" metazoan phyla, protists, fungi, and eggs/larval stages of larger species) are abundant and ubiquitous in marine sediment habitats, performing key functions such as nutrient cycling and sediment stability (Snelgrove & Butman 1994). Yet, their unexplored diversity represents one of the major challenges in biology and currently limits our capacity to understand, mitigate and remediate the consequences of environmental change. Meiofaunal assemblages have been poorly characterized in Southern California sediments (Hooge 1999), and there is a critical need for baseline data on the abundance, richness, and structure of these communities.

Statement of Problem: Comprehensive data on the composition of meiofaunal assemblages in coastal California sediments would be particularly valuable for tracking both long-term environmental change and the effects of acute localized disturbance. The abundance, biomass, and community structure of sediment infaunal communities in general exhibit tight correlations to sediment properties such as grain size, organic content, and sediment stability (e.g., Snelgrove & Butman 1994), and thus reflect hydrodynamic processes and organic inputs from the overlying water column. Chronically polluted sites may also maintain distinct communities, with long-term exposure reducing both taxonomic richness and trophic diversity (with consequences for ecosystem function; Wang et al. 2009). The Bight 2018 survey offers an unprecedented opportunity for generating a comprehensive baseline dataset of benthic meiofaunal assemblages in Southern California; associated environmental and macrofauna data will facilitate robust assessment of the environmental drivers of meiofaunal community structure and function.

Objectives: The primary objective of this study is to generate a comprehensive baseline dataset of benthic meiofaunal species assemblages in the Southern California Bight, using a combination of environmental -Omics approaches and traditional morphological taxonomy. Specific study objectives are as follows:

1. Determine how the diversity and structure of meiofaunal assemblages in Southern California estuaries relates to sediment properties (e.g. organic matter content, grain size, chemical profiles) and salinity levels (e.g. euhaline, polyhaline, mesohaline).
2. Identify meiofaunal community changes along gradients of stress (e.g., increasing levels of trace metals, legacy pesticides, emerging contaminants), with the goal of identifying meiofaunal "indicator taxa" in sites with high pollution loads.
3. Compare meiofaunal results with standard Bight survey approaches (e.g. macrofaunal data), to assess the complementary information that can be gained about ecosystem health and function.
4. Compare the utility of morphological taxonomy versus DNA metabarcoding for generating a comprehensive survey of benthic meiofaunal assemblages in the Southern California Bight.

5. Developing Standard Operating Procedures (SOPs) for meiofauna sampling as well as paving the way for using meiofauna assemblages as an environmental assessment tool in the Southern California Region

Task 1: Sample Collection and Processing. Sediment samples will be collected at Bight survey stations using Van Veen grabs (offshore sites) or push cores by hand (shore-based sampling). Fresh sediment will be transferred into Whirl-Paks or Ziploc bags and kept cool on ice or frozen immediately on dry ice upon collection. Frozen/chilled cores will be transferred into long-term storage at -80°C and subsequently transferred to UC Riverside for further processing. Meiofaunal organisms will be extracted from sediments using standard taxonomic protocols that involve flotation and decantation over a 45μm sieve (Danovaro 2010).

Task 2: Environmental Metabarcoding: For the environmental metabarcoding approach (Figure 2), we will carry out DNA extractions on extracted meiofauna fractions followed by amplification of a ~400bp fragment of the 18S ribosomal RNA gene (F04/R22 primers amplifying the V1/V2 region; Creer et al. 2010). This primer set is effective over a broad taxonomic range (amplification of >20 metazoan phyla, as well as fungi, algae, and protists), and has been extensively tested and validated for metabarcoding studies of meiofauna. Metabarcoding PCR libraries will be cleaned, pooled, and sequenced on the Illumina MiSeq Platform (300bp Paired-End runs, enabling recovery of the entire 18S amplicon).

Task 3: Morphological Taxonomy and DNA barcoding of single meiofaunal specimens: For each sampling site, a subset of 30-100 individual meiofauna specimens will also be sorted, identified, and imaged under a high-power microscope, followed by DNA extraction and DNA barcoding of selected specimens to generate a full-length 18S rRNA barcode for the most abundant Bight meiofaunal species (~1600bps generated via Sanger sequencing, amplified using primer sets in Bik et al. 2010).

Task 4: Bioinformatics and Statistical Analysis: Morphological taxonomy data, DNA barcoding, and environmental metabarcoding datasets will be carried out in appropriate software pipelines such as QIIME, R Studio, and PRIMER-E. Alpha- and Beta-diversity analyses will be carried out to assess spatial and depth-related patterns of species richness and community structure, and identify potential environmental and biological drivers of meiofaunal assemblage structure. Phylogenetic analyses will be additionally carried out on DNA datasets to identify potential cryptic diversity amongst meiofaunal morphospecies, and assess biogeographic break points in the Southern California Bight.

Products: Products from this leverage study will include peer-reviewed scientific publications, a reference database of key Bight meiofaunal species (morphological identifications and reference DNA barcodes generated from individual specimens), high-throughput environmental metabarcoding datasets (datasets of Operational Taxonomic Units and their geographic distribution), as well as formal SOPs detailing meiofaunal sampling protocols and data collection/analysis procedures.

References

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Hooge M (1999) Abundance and horizontal distribution of meiofauna on a Northern California beach. *Pacific Science*, 53(3):305-315

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Wang Y, Chen H, Wu J (2009) Influences of chronic contamination of oil field exploitation on soil nematode communities at the Yellow River Delta of China. *Front Biol China*, 4:376-383.

Meiofauna Sediment Core Datasheet

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Sample bags should have exterior labels in the format of **AGENCY-STATION-DATE.** Do not include interior labels within the bag, to avoid contamination of eDNA samples.

This datasheet should accompany the samples delivered to SCCWRP or UC Riverside

Collection Date:	
Agency:	
Station:	
Bight Stratum:	
Method of Collection (check one box)	• Sediment Core • Scooped Sediment (no depth fraction)
Sample Depth (0-10cm core fraction preferred if possible)	
Field Storage Method	• Wet Ice • Dry Ice • Other (comment required):
Comments:	