

**Southern California Bight
2023 Regional Marine Monitoring Program
(Bight '23)**

**Sediment Quality Assessment
Workplan**



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I. INTRODUCTION

The Southern California Bight (SCB) is an important and unique ecological resource. This open embayment along the coast stretches from Point Conception to Punta Colonet (south of Ensenada), Baja California. The SCB is a transitional area that is influenced by currents from cold, temperate ocean waters from the north and warm, tropical waters from the south. In addition, the SCB has a complex topography, with offshore islands, submarine canyons, ridges and basins, bays and estuaries, which provide a variety of habitats. The mixing of currents and the diverse habitats in the SCB allow for the coexistence of a broad spectrum of species, including more than 500 species of fish and several thousand species of invertebrates. The SCB is also a major migration route, with marine bird and mammal populations ranking among the most diverse in north temperate waters.

The coastal zone of the SCB is an important economic resource. Los Angeles/Long Beach Harbor is the largest commercial port in the United States, and San Diego Harbor is home to one of the largest US Naval facilities in the country. More than 100 million people visit Southern California beaches and coastal areas annually, bringing an estimated \$9 billion into the economy. Recreational activities include diving, swimming, surfing, and boating, with tourism and recreational activities in Southern California valued at nearly \$5 billion (Kildow and Colgan 2005).

The SCB is also one of the most densely populated coastal regions in the country, which creates stress upon its marine environment. Over 23 million people inhabit Southern California (US Census Bureau 2020). Population growth generally results in conversion of open land into non-permeable surfaces. More than 75% of Southern California's bays and estuaries have already been dredged and filled for conversion into harbors and marinas (Horn and Allen 1985). This "hardening of the coast" increases the rate of runoff and can impact water quality through addition of sediment, toxic chemicals, pathogens and nutrients to the ocean. Besides the impacts of land conversion, the SCB is already home to fifteen municipal wastewater treatment facilities, eight power generating stations, 10 industrial treatment facilities, 4 desalinization plants, and 18 oil platforms that discharge to the open coast.

Each year, local, state, and federal agencies spend more than \$31M to monitor the environmental quality of natural resources in the SCB (Schiff et al. 2001). At least 75% of this monitoring is associated with National Pollutant Discharge Elimination System (NPDES) permits and is intended to assess compliance of waste discharge with the state and federal regulations, which set water quality standards for effluent and receiving waters. Some of this information has played a significant role in management decisions in the SCB.

While these monitoring programs have provided important information, they were designed to evaluate impacts near individual discharges. Today, resource managers are encouraged to develop management strategies for the entire SCB. To accomplish this task, managers need regionally-based information to assess the cumulative impacts of contaminant inputs and to evaluate relative risk among different types of stressors. It is difficult to use local datasets to evaluate regional issues because the monitoring was designed to be site-specific and is limited to specific geographic areas. This place-based monitoring provides substantial data for

some areas, but there is little or no data for the areas in between. Beyond the spatial limitations, data from these programs are not easily merged to examine relative risk. The parameters measured often differ among programs, and even when the same parameters are measured, the methodologies used to collect the data often differ and interlaboratory quality assurance (QA) exercises to assess data comparability are rare. As a result, the Southern California Bight Regional Marine Monitoring (Bight) Program was born from the frustration of environmental managers' inability to answer regional questions about the SCB coastal environment (NRC 1990).

Previous Regional Monitoring Studies

There have been six previous regional monitoring efforts to address environmental concerns at larger spatial scales (Table I-1). The first regional monitoring survey in 1994, called the Southern California Bight Pilot Project (SCBPP), was a compilation of 12 agencies that cooperatively sampled 261 sites along the continental shelf between Point Conception and the United States/Mexico border. The second regional monitoring survey, called the Southern California Bight 1998 Regional Monitoring Program (Bight '98), was comprised of 64 agencies that cooperatively sampled 416 sites between Point Conception and Punta Banda, Mexico and included new habitats such as ports, bays, and marinas. The third regional monitoring survey, called the Southern California Bight 2003 Regional Monitoring Program (Bight '03), was comprised of 65 agencies that cooperatively sampled 391 sites between Point Conception and the United States/Mexico border, and expanded the number of habitats from Bight '98 to include estuaries and deep ocean basins. The fourth regional monitoring survey, called the Southern California Bight 2008 Regional Monitoring Program (Bight '08), was comprised of 61 organizations that sampled 383 sites between Point Conception and the United States/Mexico border, and included new contaminants of emerging concern. The fifth survey, the Southern California Bight 2013 Regional Monitoring Program (Bight '13), was comprised of 34 organizations that sampled 397 sites between Point Conception and the United States/Mexico border, including the new habitats of submarine canyons and marine protected areas. The sixth survey, the Southern California Bight 2018 Regional Monitoring Program (Bight '18), was comprised of 46 organizations that sampled 376 sites between Point Conception and the United States/Mexico border and included a new habitat, brackish estuaries.

Benefits derived from the previous Bight Programs included the development of new useful technical tools that could only be developed with regional data sets and participation by multiple organizations. For example, the program produced iron-normalization curves for the SCB, allowing distinction between natural and anthropogenic contributions of metals in sediments (Schiff and Weisberg 1999). A Benthic Response Index was developed that integrates complex benthic infaunal data into an easily interpreted form that describes the degree of perturbation at a site (Smith et al. 2001). These types of tools have culminated in management tools such as the State of California's Sediment Quality Objectives (SQOs; Beegan and Bay 2012). The Bight Regional Program has also improved the comparability among the monitoring organizations in the SCB. The quality assurance and quality control (QA/QC) significantly improved following laboratory intercalibration exercises for chemistry, group training for field crews, and taxonomic resolution for biologists. The Regional Monitoring Program has also produced a series of manuals containing standardized field, laboratory and data management

activities that increased continuity of data and data reporting among participants, even after the regional monitoring surveys were completed. Many of these manuals are now mandated in NPDES monitoring and reporting programs region-wide.

2023 Survey

The proposed Southern California Bight 2023 Regional Monitoring Program (Bight '23) is a continuation of the successful cooperative regional-scale monitoring in Southern California. Bight '23 builds upon the previous successes and expands on the 2018 program by including new participants, answering additional questions, adding new elements, and measuring more parameters. Forty-eight organizations, including international and volunteer organizations, have agreed to participate (Table I-2). The inclusion of multiple participants, some of them new to regional monitoring, provides several benefits. Cooperative interactions among many organizations with different perspectives and interests, including a combination of regulators and dischargers, ensure that an appropriate set of regional-scale questions will be addressed by the study.

The Bight '23 Program is organized into seven technical components: 1) Sediment Quality (formerly Contaminant Impact Assessment/ Coastal Ecology); 2) Microbiology; 3) Water Quality (formerly Nutrients/Ocean Acidification); 4) Harmful Algal Blooms; and 5) Trash and Microplastics, 6) Estuaries, and 7) Submerged Aquatic Vegetation. The Sediment Quality component focuses on sediment contaminants and associated impacts on benthic infauna, epibenthic macroinvertebrates demersal fishes, and shellfish. This Workplan provides a summary of the sediment quality project design. The Workplan is supported by four companion documents including the Field Methods and Logistics Manual, Benthic Laboratory Manual, Toxicology Laboratory Manual, Information Management Plan, and Quality Assurance Plan (QAP). Separate Workplans are also available for the other elements of Bight '23.

FIGURE I-1. Map of the Southern California Bight sampling domain and strata

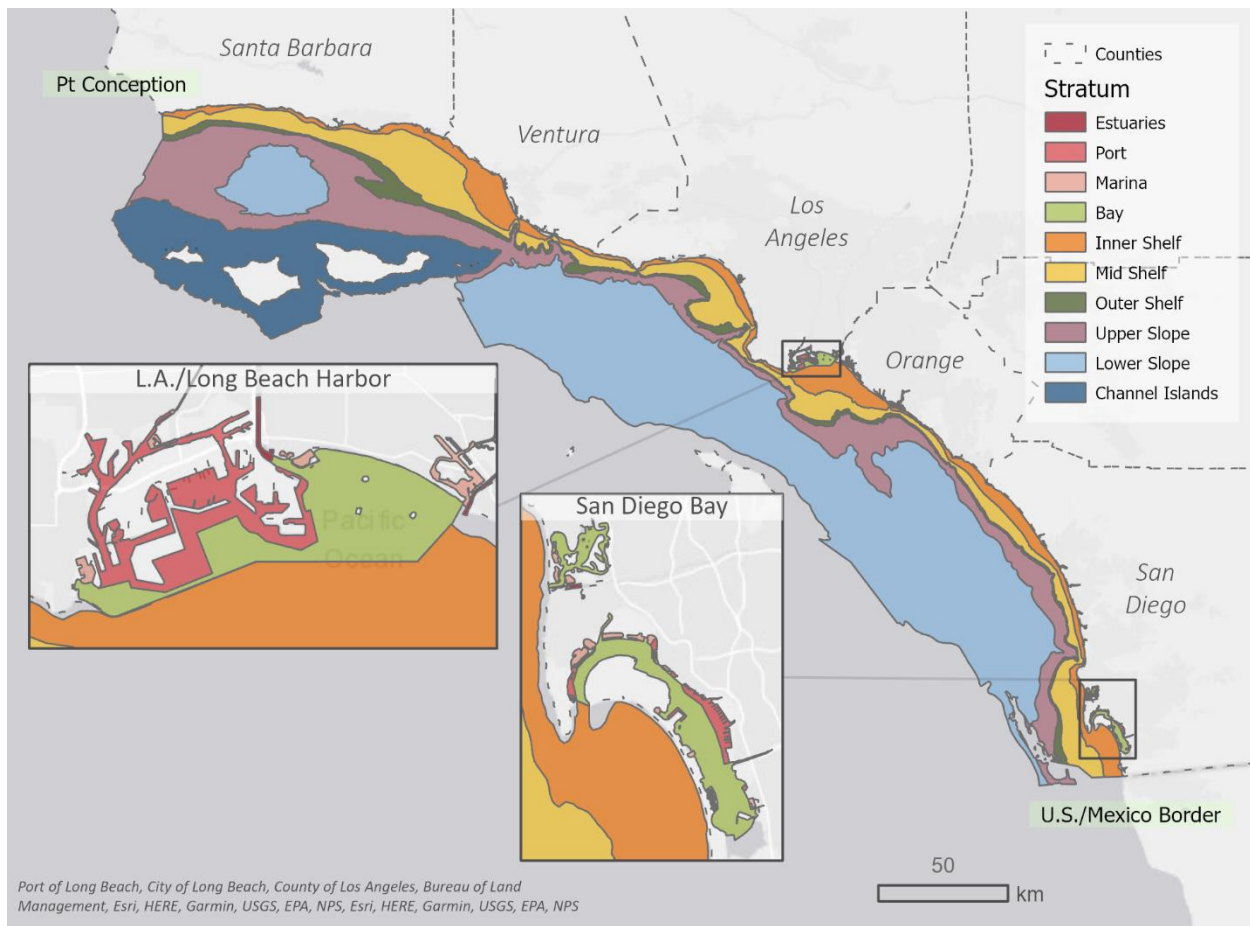


Table I-1. Summary of Bight Regional Marine Monitoring Programs.

Strata	1994 (Pilot Project)	1998 (Bight '98)	2003 (Bight '03)	2008 (Bight '08)	2013 (Bight '13)	2018 (Bight '18)	2023 (Bight '23)
Inner Shelf	X	X	X	X	X	X	X
Middle Shelf	X	X	X	X	X	X	X
Outer Shelf	X	X	X	X	X	X	X
Upper Slope			X	X	X	X	X
Lower Slope and Basin			X	X	X	X	X
Submarine Canyons					X		
Channel Islands		X	X	X	X	X	X
Marine Protected Areas					X		
River Mouths	X	X					
Mexico		X				X	
Marine Estuaries			X	X	X	X	X
Brackish Estuaries						X	
Marinas		X	X	X	X	X	X
Ports		X	X	X	X	X	X
Bays		X	X	X	X	X	X
POTWs		X	X				

TABLE I-2. Participants in the Bight '23 Regional Monitoring Program, Sediment Quality.

AES Corporation
Anchor QEA
Aquatic Bioassay and Consulting Laboratories (ABC)
Bureau of Ocean Energy Management (BOEM)
CalScience Environmental Laboratories, Inc.
Channel Islands National Marine Sanctuary (CINMS)
Chevron USA Products Company
City of Los Angeles, Department of Water and Power (LADWP)
City of Los Angeles Watershed Protection District
City of Los Angeles Environmental Monitoring Division (CLA-EMD)
City of Oceanside
City of Oxnard
City of San Diego
Ballona Creek Watershed Management Group (City of Los Angeles, Los Angeles County Flood Control District, Los Angeles County, City of Beverly Hills, City of Culver City, City of Inglewood, City of Santa Monica, City of West Hollywood)
Eco-Analysts
Encina Wastewater Authority
Enthalpy
Greater Los Angeles and Long Beach Harbor Waters Regional Monitoring Coalition (RMC)
Los Angeles Regional Water Quality Control Board (LARWQCB)
Los Angeles County Public Works
Los Angeles County Sanitation Districts (LACSD)
MBC Aquatic Sciences (MBC)
National Oceanic and Atmospheric Administration (NOAA)
Naval Information Warfare Center Pacific
NES Energy, Inc.
NRG Energy, Inc.
Orange County Sanitation District (OC San)
Orange County Public Works
Pacific EcoRisk
PHYSIS Environmental Laboratories, Inc.
Port of Long Beach
Port of Los Angeles
Port of San Diego
Riverside County Flood Control and Water Conservation District
San Diego County Dept. of Environmental Health and Municipal Co-permittees
San Diego Regional Harbor Monitoring Program (RHMP)
San Diego Regional Water Quality Control Board (SDRWQCB)
San Diego Unified Port District
San Elijo Joint Powers Authority
Santa Ana Regional Water Quality Control Board
Southern California Coastal Water Research Project (SCCWRP)
State Water Resources Control Board
U.S. Fish and Wildlife Service (USFWS)
U.S. Geological Survey (USGS)
Vantuna Research Group, Occidental College
Weck Laboratories, Inc.
Weston Solutions, Inc.
WSP

II. STUDY DESIGN

A. Study Objectives

The overall goal of the sediment quality component of Bight '23 is to assess the condition of the benthic environment and the health of the biological resources in the SCB. To accomplish this goal, Bight '23 will focus on three primary questions:

1. What is the extent and magnitude of sediment quality impacts in the Southern California Bight?
2. How does the extent and magnitude of sediment quality impacts vary over time in the Southern California Bight?
3. What is the extent and magnitude of bioaccumulation of select contaminants in shellfish in the Southern California Bight?

Impacts refer to ecological changes resulting from exposure to contaminated sediment. The first question, estimating the area (i.e., number of square kilometers) in which ecological conditions differ from reference conditions, is a departure from traditional approaches to environmental monitoring that generally focus on estimating average condition. Estimating the areal extent of ecological change offers several advantages. First, it provides a more direct assessment of status. For instance, identifying that the average Shannon-Weiner (H') benthic diversity in the SCB provides less useful information for environmental managers than does identifying what percentage of the area in the SCB has impaired biological communities. A corollary to this concept is the assessment of regional reference condition. Since most monitoring programs in the SCB are site specific, assessment of regional reference condition allows managers to compare individual sites to the breadth and depth of natural variation in the SCB.

There are two sub-objectives within the areal extent and magnitude question. The first sub-objective is to determine if the areal extent and magnitude varies among geographic regions. If we answer this question, then managers can determine if specific areas are in worse condition than others, such as areas near anthropogenic inputs versus those areas distant from inputs. Therefore, Bight '23 will compare conditions among 10 geographic areas of interest (strata, Table II-1). These strata were selected to represent a range of natural and potentially affected habitats and are inclusive of most of the habitats sampled in Bight '18, except for freshwater estuaries stratum, which will not be sampled in Bight '23. Comparison of the relative condition among strata provides information about the geographic distribution of impacts and may indicate the relative risk among a variety of pollutant discharges. An assessment of conditions may be conducted by comparing the extent of area exceeding a threshold of concern or to a mean condition.

The second sub-objective within the areal extent and magnitude question is to assess the relationship between biological responses and direct contaminant exposure. Such associations provide the information necessary for risk assessment, and for developing efficient regional strategies for protecting the environment by identifying the predominant types of stress in the SCB ecosystem. Therefore, this sub-objective will be accomplished by simultaneously collecting numerous measures of biological response, contaminant exposure and habitat condition (Table II-2)

to better identify when exposure has reached a level of concern. Measuring multiple indicators also permits the identification of the most likely type of exposure leading to biological response. Furthermore, multiple indicators can be integrated into an overall index of impact using the SQO framework.

The second primary question is to assess trends in estimates of areal extent and magnitude of sediment quality impacts. If habitats of concern improve over time, this demonstrates the effectiveness of cumulative management actions. If habitats of concern worsen, this demonstrates the need for management action. However, if some habitats improve and others worsen, then the average condition might not change. By estimating the areal extent of alteration, we will be better able to describe these changes. We have designed Bight '23 to build upon previous surveys to assess trends in areal extent and magnitude. This will be accomplished by revisiting a subset of randomly sampled sites from 1998 and 2003, which were revisited in 2008, 2013, and 2018.

The third question is to assess bioaccumulation of select chemicals in shellfish, mussels and oysters, that are popular for human consumption. Bioaccumulation in sportfish measured during the Bight '08 and '18 surveys identified organic contaminants and metals in edible tissues and helped to identify locations of greatest concern in the SCB. This study question expands these surveys to investigate impacts on edible shellfish species with tissue concentrations exceeding California Office of Environmental Health Hazard Assessment (OEHHA) Advisory Tissue Levels. In addition, the shellfish survey will also include a survey of impacts from harmful algal bloom toxins, human pathogens, and microplastics, for a comprehensive assessment of whether shellfish are safe to eat.

B. Sampling Design

The Sediment Quality sampling design for Bight '23 will be divided into two components. These include 1) areal extent, magnitude, and trends in sediment quality impacts and 2) bioaccumulation in shellfish.

B1. Sediment Quality Impacts

The areal extent, magnitude, and trends component of Bight '23 will involve sampling a target of 300 sites for sediments in the SCB between July 1 and September 30, 2023. The summer period was chosen for the study because it represents a period of consistent weather during which the indicators measured are expected to remain stable.

Maps of the sampling sites are provided in Appendix A. Sites were selected using a stratified random approach, with the strata corresponding to the habitats of interest in Table II-1. Stratification ensures that an appropriate number of samples are allocated to characterize each habitat of interest with sufficient statistical power. Thirty sites were allocated to each stratum because this yields a 90% confidence interval of about $\pm 10\%$ around estimates of areal extent (assuming a binomial probability distribution and $p = 0.2$). This level of desired precision was

selected because differences in response of less than 10% among strata are unlikely to yield different management decisions.

Sites were selected randomly within each stratum, rather than by investigator pre-selection, to avoid bias and to allow for extrapolation of the response for the entire stratum. Although sites were selected randomly, a systematic component was added to the selection process to minimize clustering of sample sites. The systematic element was accomplished by using an extension of the sampling design used in the SCBPP and in EPA's Environmental Monitoring and Assessment Program (EMAP) (Stevens 1997). A hexagonal grid is randomly placed over a map of the sampling area, a subsample of hexagons is chosen from this population, and samples are obtained at randomly selected sites within grid cells. The hexagonal grid structure ensures systematic separation of the sampling, while the random selection of sites within grid cells ensures an unbiased estimate of ecological condition. Sites were selected using the *spsurvey* package in R.

One of the design attributes of Bight '23 is to maximize the coincidence of indicators, allowing us to relate biological response to chemical exposure and physical habitat condition. The number of sites sampled for each indicator type within each stratum is presented in Table II-3. To maximize overlap of indicators, sites that receive fewer indicator measurements were randomly chosen (with a systematic element) as a subset of the sites at which all indicators are measured.

Approximately half of the sites in each of the eight strata are revisits of previously sampled sites to assess trends. These strata include the 5-30m, 30-120m, 120-200m, and 200-500m depth zones on the coastal shelf, as well as marinas, ports, bays, and estuaries. One quarter of the sites will be from Bight '98, one quarter will be from Bight '03, all of which were revisited during Bight '08, Bight '13, Bight '18 and will be sampled again during Bight '23. The remaining half will be new sites for Bight '23. Because field teams can sample any site within a radius of 100 meters, new sites selected for the Bight '23 survey must fall outside of a radius of 200 meters from a revisit station to be considered an independent site. All sites were randomly selected and spatially unbiased so estimates of spatial extent are still valid. The number of revisit sites was based on an analysis of the spatial and temporal variance of the 105 revisited sites sampled over the previous three Bight surveys. Variance was evaluated for infauna as well as representative chemical parameters (total DDT, total PCBs, total PAHs, copper, zinc, total organic carbon, total nitrogen, and percent fines). Spatial variance was calculated as the average variance among sites within a stratum during a single survey. Temporal variance was calculated as the average variance of a single site across multiple sampling events. A variance ratio was calculated as the ratio of the spatial variance by the temporal variance (if these two measures of variance were equal, the ratio would be 1). The results indicated that spatial variance and temporal variance were similar, with space being slightly more variable than time, particularly in the offshore strata (Figures II-3 and II-4), thus revisiting half of the sites slightly favors trend detection. Given this analysis, the planning committee decided to maintain the previous ratio of revisits to new sites to maintain consistency between surveys.

B2. Shellfish Bioaccumulation

The purpose of this component is to assess regional shellfish for human and ecosystem health impacts throughout the SCB using multiple metrics. The Sediment Quality planning and technical committees will be responsible for the measurement of concentrations of legacy contaminants and emerging contaminants (PFAS) in coastal bivalves along the coast of the Southern California Bight. In addition to the contribution from the Sediment Quality committee, the Harmful Algal Blooms committee will assess HABs toxins (microcystins and domoic acid), the Trash Committee will assess microplastic concentrations, and the Microbiology group will assess pathogens in shellfish collected simultaneously as those used for analysis of chemical contaminants.

There will be a minimum of three sampling events that will occur at 20-30 stations across the SCB over a one-year period. Sampling events will occur during the late summer/early fall (dry season), winter (wet season), spring (coastal upwelling). This design allows us to capture the “baseline” concentration of contaminants in the bivalves during the summer, as well as concentrations after upwelling events and flushing from the rainy season.

This component has both a spatial extent and magnitude component in its design. For Bight '23 we will use a similar sampling design as the fish surveys in Bight '08 and '18, which followed five basic guiding principles:

1. Make region-wide assessments
2. Target species that people eat
3. Sample locations where species are caught
4. Measure tissues that are consumed
5. Analyze constituents that represent potential risk to human consumers

Sampling locations for this study will focus on known shellfish beds that are popular for subsistence and recreational harvesting, spaced along the SCB coastline. The study will focus on mussels (*Mytilus californianus* and/or *Mytilus galloprovincialis*; wild mussels are also sometimes hybridized) and oysters (*Crassostrea gigas*). Sites located near estuaries included in the Bight '23 Estuaries Assessment will be prioritized because those sites will have ancillary information about freshwater flow and chemistry that will be helpful in interpretation.

A targeted sampling design will be used to examine bioaccumulation in shellfish. Thirty locations will be delimited from Point Conception to the US/Mexico International Border for this study. Sampling locations are inclusive of 200m radius from the target location. Sites will (at least partially) coincide with stations sampled by the Bight '23 Estuary Study group to leverage their sampling effort. This study aims to sample locations with a broad gradient of environmental stressors and responses, from minimally disturbed (reference sites) to very disturbed locations and will thus incorporate locations with different land use (agricultural, urban, and open space). Wherever possible, multiple taxa of bivalves (both oysters and mussels) will be collected from the same site (within 200 m). Ancillary field data such as temperature and salinity will be collected during sampling for shellfish, along with water samples for chlorophyll *a* concentration analysis.

Sampling will be conducted by the Bight '23 Shellfish Technical Committee. Sample collection will occur between Fall of 2023 and Summer of 2024, targeting 3 sampling periods over a one-year period. Sampling will partially leverage the sampling effort of the Bight '23 Estuary Study group, which plans to sample in estuaries across the Southern California Bight in the fall of 2023, and potentially in the Spring of 2024. A minimum of 10 individuals will be composited and splits of the composite will be used for analysis of each indicator. The same composites will be analyzed for chemical contaminants, HABs toxins and pathogens, but not for microplastics, which will be measured from individuals collected at the same time and place.

C. Indicators

Bight '23 will measure multiple indicators (Table II-2) at each site to relate contaminant exposure, biological response, and habitat condition. Collecting measures of contaminant exposure with measurements of biological response at common sites allows investigators to identify and statistically model associations between altered ecological conditions and environmental stresses. Habitat indicators help discriminate between changes caused by anthropogenic and natural factors. These multiple metrics can be combined into an index of overall sediment quality impacts using the Sediment Triad and Sediment Quality Objective (SQO) assessment tools. The SQO index was developed for use in enclosed bays and estuaries but is also applied to the shelf for purposes of the Bight assessment.

The probability-based sampling design provides a framework for integrating data into a comprehensive regional assessment, but the validity of such an assessment depends on ensuring that all the data that contribute to it are comparable. Therefore, under the Bight '23 program, all indicators will be measured using consistent sampling methods throughout the SCB. Below, we present a short description of the methods used to measure the Bight '23 indicators; more detailed descriptions of the methods can be found in the accompanying Field Methods and Quality Assurance Manuals for the project.

C1. Contaminant Exposure Indicators

Contaminant exposure will have two components: sediment chemistry and marine debris. The latter will be coordinated with the Bight '23 Trash and Microplastics Element.

1. Sediment Chemistry: Chemical analysis of sediment samples provides an assessment of contaminant exposure for bottom dwelling animals. Sediment samples will be collected from the top 2 cm (coastal sites) or top 5 cm (embayments) of a Van Veen grab sample. The chemical analyte list includes both inorganics and organics (Table II-4) and was developed to include comparisons to local programs and to state and national monitoring datasets such as California's SWAMP or NOAA's Status and Trends program. The constituent list and associated reporting limits were specifically developed for comparison to sediment quality guidelines such as the State of California's SQOs (SWRCB 2008). All chemistry measurements will follow

performance-based quality assurance guidelines described in the Bight '23 Quality Assurance Plan.

1a. Organics

Organic compounds in sediments will be extracted with solvents and cleaned to remove interfering substances. Polycyclic aromatic hydrocarbons (PAHs) will be analyzed by GC/MS. Organochlorine pesticides and polychlorinated biphenyls (PCBs) will be analyzed by GC/ECD, GC/MS, or GC/MS/MS. The accuracy of PCB measurements will be enhanced by measuring 41 individual congeners in all samples with elevated concentrations. The PCB congener list was selected to include compounds that are abundant in the environment and compounds with a high potential for toxicity. Thirteen polybrominated diphenyl ethers (PBDEs) congeners will be analyzed by GC/ECD, GC/MS, or GC/MS/MS. The PBDE congener list was selected to include compounds that were present in the original technical mixtures, are abundant in the environment and compounds, and have a high potential for bioaccumulation. PAHs, chlorinated hydrocarbons, PCBs, and PFAS will be measured in all strata. Pesticides (Pyrethroids and neonicotinoids), PBDEs, and tire wear compounds (6PPD-quinone) will be measured in embayment strata only.

1b. Inorganics

Metals in sediments will be analyzed by ICP, ICPMS, or atomic absorption spectrophotometry after strong acid digestion. Methyl mercury will be analyzed by cold vapor technique. In addition to trace metals, the reference elements iron and aluminum will also be measured in each sample. Normalization of the trace metal data to reference element concentrations will enable anthropogenic contamination to be distinguished from natural variations in background concentrations. Metals will be analyzed in all Bight strata.

2. Marine Debris: The amount of plastic, metal, and other debris on the ocean bottom is a measure of human impact. Debris captured in trawls will be classified by type (e.g., plant material, plastic, and cans, etc.) and scored according to relative abundance. Microplastics will be measured in a subset of stations in two strata (inner shelf and estuaries). For more detail on the marine debris assessment, please refer to the Bight '23 Trash and Microplastics workplan.

C2. Biological Response Indicators

While indicators of contaminant exposure provide an important measure of the influence of anthropogenic materials on the marine and estuarine environments, it is the effect of this exposure upon biological processes that determines the significance of the contaminants. The effect of contaminant exposure will be examined through a variety of indicators:

1. Benthic Infauna: Benthic infauna (animals that live in the sediment) are an important part of the ocean food web. Because infauna generally reside in one location for most of their lives and can be chronically exposed to sediment contaminants, they are an excellent indicator of environmental quality. Samples for infaunal analysis will be taken with a 0.1-m² modified Van

Veen grab. Samples will be washed through a 1.0-mm mesh screen and preserved for identification to the lowest practical taxonomic unit.

2. Demersal fish and megabenthic invertebrate assemblages: Demersal fish and megabenthic invertebrates are more mobile than the benthic infauna but are still closely associated with bottom sediments and chronically exposed to any contaminants therein. Demersal fish and megabenthic invertebrates will be collected with a semi-balloon otter trawl with 7.6 m headrope length and a 1.3 cm cod-end mesh. Trawls will be towed for 10 min at 0.8-1.0 m/s along depth isobaths (5 min in harbors). All fish and most invertebrates (>1.0 centimeters in any dimension) will be identified to species, counted, and weighed.

3. Gross fish pathology: The presence and extent of external diseases (e.g., fin rot and tumors) and anomalies (e.g., skeletal deformities or abnormal coloration) will be recorded from fish collected in the trawls for assemblage analysis. The presence of external parasites will also be noted. Specimens with unusual or unidentified conditions will be returned to the laboratory for detailed examination.

4. Sediment toxicity: Toxicity tests provide a direct measure of the effect of contamination on benthic organisms. These tests complement sediment chemistry measurements by providing a measure of the combined toxic effect of the complex mixture of contaminants present in surficial sediments or in the porewater between sediment grains (interstitial water). The toxicity of sediments will be assessed in two ways: 1) survival of the amphipod, *Eohaustorius estuarius*, after exposure to sediments for 10 days; and 2) the embryonic development of the bivalve, *Mytilus galloprovincialis*, using the sediment:seawater interface test. Both tests support the application of California's SQOs. Both tests are performed in the embayment strata. The *Eohaustorius* test alone will be performed in a subset of the shelf strata (10 sites each inner, mid, and outer shelf).

C3. Habitat Condition Indicators

The distribution of biota is also affected by natural habitat factors, such as grain size and the amount of organic matter present. Habitat indicators will be measured to help distinguish the relative effects of natural and anthropogenic factors on biotic distribution.

1. Sediment grain size: Grain size will be measured with a laser diffraction technique, a method that provides sufficient resolution between particle size classes with less variability than other conventional techniques.

2. Sediment total organic carbon (TOC), total nitrogen (TN): TOC and TN will be measured with an Elemental Analyzer.

C4. Shellfish Bioaccumulation Indicators

1. Species Selection

Selecting species to monitor is complicated due to the relatively high diversity of species, variation in habitat type and quality, variation in contamination, and the varying ecological attributes of potential indicator species. The following criteria were used to select target species:

1. Popular for consumption.
2. Widely distributed. Range of preferred species will extend the length of the SCB.
3. Representative of different depuration rates.
4. Continuity with existing monitoring efforts.

Two taxa have been selected for chemical analysis in Bight '23: mussels and oysters. Wherever possible, oysters (*Crassostrea gigas*) and mussels (*Mytilus californianus* and/or *Mytilus galloprovincialis*; wild mussels are also sometimes hybridized) will be collected to allow for comparison of concentrations across bivalve taxa at or near the same confluence. Both bivalve species are among the most pervasive in coastal confluence zones in California.

2. Tissue Composite Samples

A minimum of 10 individuals will be composited. Shellfish will be stored on ice and shucked within 48 hours of collection, homogenized, and split into four sample containers (contaminants, HABs toxins, pathogens, and microplastics).

3. Contaminants

The State of California OEHHA has provided guidelines for the evaluation of contaminant data (Table II-5). Each composite sample will be analyzed for PCB congeners, DDT isomers and metabolites (same as those identified for SQOs), mercury, and selenium (Table II-5), using analytical methods as described above in sediment chemistry. In addition, samples will be analyzed for PFAS compounds and tire wear compounds (same as those identified for analysis in sediment). Reporting levels shall be consistent with OEHHA (Klasing and Brodberg, 2017) and SWAMP bioaccumulation monitoring (2021) thresholds for comparative purposes. Quality assurance activities shall focus on accuracy, precision, sensitivity, and comparability. There will be an estimated 200 samples total for this element of Bight '23 (30 sites x 2 species x 3 sampling period x 5% replication).

D. Committed and Uncommitted Work Elements

This workplan describes the elements of the Bight '23 Sediment Quality Element that have been identified as priority needs. However, these priorities outstrip available resources. Therefore, the Bight Program commits to collecting data for some of these elements, identified as assigned elements below in appendices B and C. In contrast, uncommitted elements may be implemented if additional resources become available, or non-Bight partners wish to contribute to the program. These elements include the “unassigned” analytes or sample locations in Appendices B and C with additional elements included in Appendix D.

FIGURE II-1. 90% Confidence Intervals about an estimate of percent of area changed as a function of sample size (binomial probability distribution and $p = 0.2$)

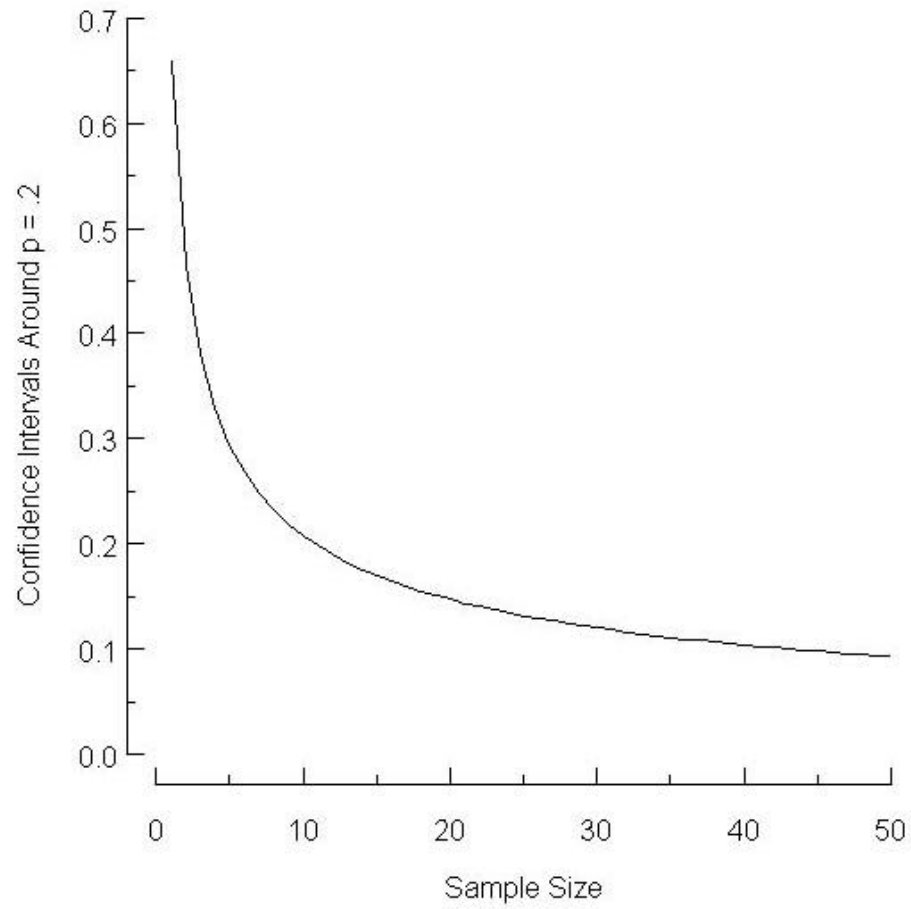


Figure II-3. Spatial:Temporal Variance ratio across all indicators and strata in the SCB. Values less than 0 indicate time has greater variance, values larger than 0 indicate that space has the greater variance.

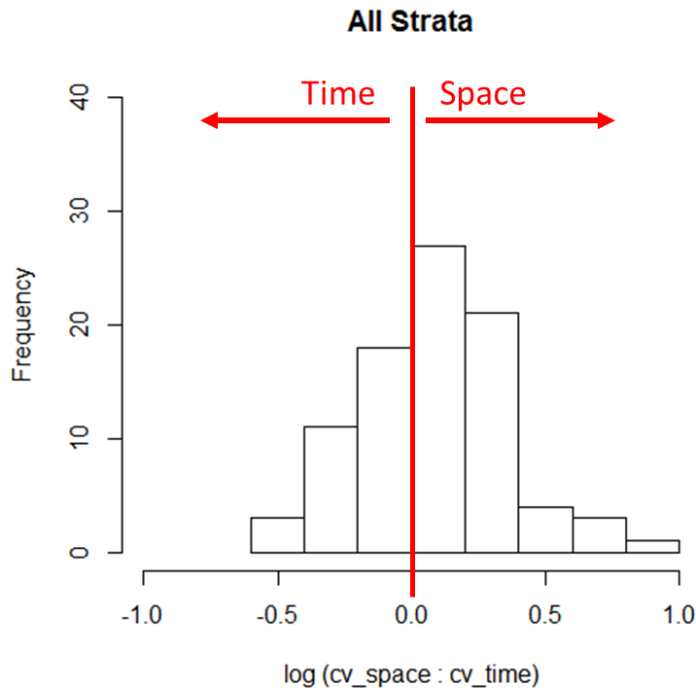


Figure II-4. Spatial:Temporal Variance ratio across all indicators for 3 strata categories (shelf = inner-, mid-, and outer-shelf), slope (upper and lower slope), and embayments (estuaries, marinas, bays, ports) in the SCB.

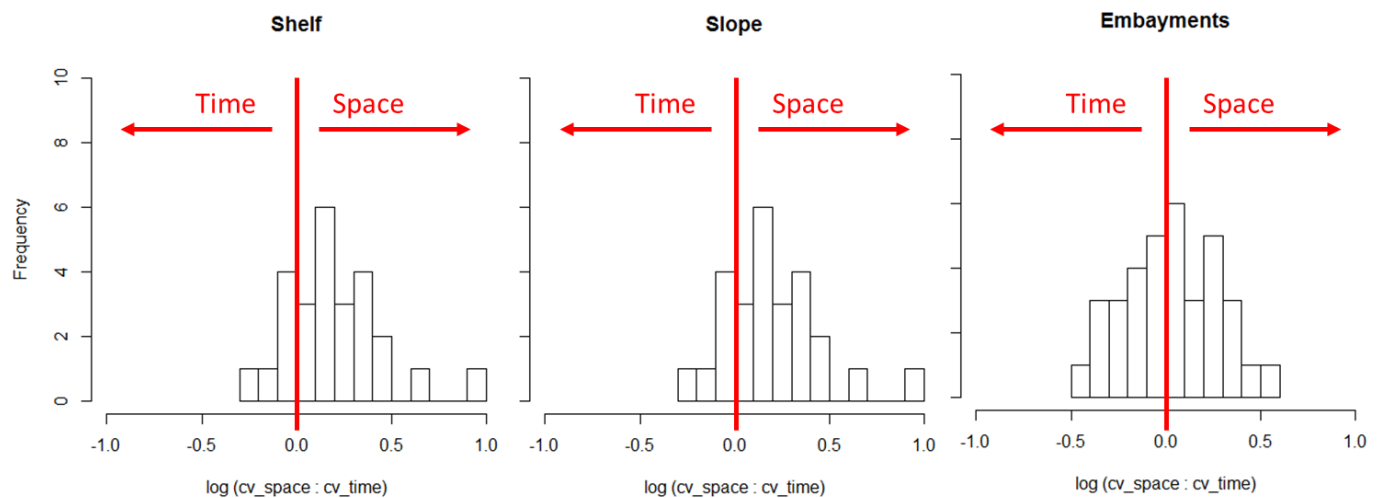


TABLE II-1. Strata of interest in the areal extent, magnitude, and trends objectives of the Bight '23 Sediment Quality study.

Offshore Areas

- a. Inner shelf (5-30 m)
- b. Mid-shelf (30-120 m)
- c. Outer shelf (120-200 m)
- d. Upper slope (200-500 m)
- e. Lower slope (500-1000 m)
- f. Channel Islands (30-120 m in Sanctuary)

Embayment Areas

- a. Marine Estuaries (salinity ≥ 27 ppt)
- b. Ports
- c. Bays
- d. Marinas

TABLE II-2. Indicators to be measured in Bight '23.

Contaminant exposure

Sediment chemistry

Macro-debris

Microplastics

Biological response

Benthic infauna

Fish assemblage

Fish pathology

Macroinvertebrate assemblage

Sediment toxicity

Habitat

Grain size

Sediment organic carbon

TABLE II-3. Target sample sizes in the strata for Bight '23.

	Sediment Chemistry	Infauna	Trawl	Sed Tox
Offshore Strata				
5 to 30 m	30	30	30	Combined 30 ^a
30 to 120 m	30	30	30	
120 to 200 m	30	30	30	
200 to 500 m	30	30	30	-
500 to 1000 m	30	30	-	-
Channel Islands	15	15	-	-
Embayment Strata				
Marinas	30	30		30 ^b
Ports	30	30		30 ^b
Bays/Harbors	30	30	30	30 ^b
Saline Estuaries/Lagoon	30	30		30 ^b
<hr/>				
Target Sample Size	285	285	150	150

The three shelf strata are combined for sediment toxicity testing

^a1 species for toxicity (10-day amphipod test)

^b2 species for toxicity (10-day amphipod and 48-hour bivalve tests)

TABLE II-4. Constituents that will be measured in sediment during Bight '23.

Trace Metals	PCB Congeners	Polycyclic Aromatic		
		Hydrocarbons		PolyBrominated Diphenyl Ethers
Aluminum	PCB 8	PCB 157	1,6,7-Trimethylnaphthalene	BDE 17
Antimony	PCB 18	PCB 158	1-Methylnaphthalene	BDE 28
Arsenic	PCB 28	PCB 167	1-Methylphenanthrene	BDE 47
Barium	PCB 37	PCB 168	2,6-Dimethylnaphthalene	BDE 49
Beryllium	PCB 44	PCB 169	2-Methylnaphthalene	BDE 66
Cadmium	PCB 49	PCB 170	Acenaphthene	BDE 85
Chromium	PCB 52	PCB 177	Acenaphthylene	BDE 99
Copper	PCB 66	PCB 180	Anthracene	BDE 100
Iron	PCB 70	PCB 183	Benz[a]anthracene	BDE 138
Lead	PCB 74	PCB 187	Benzo[a]pyrene	BDE 153
Mercury	PCB 77	PCB 189	Benzo[b]fluoranthene	BDE 154
Nickel	PCB 81	PCB 194	Benzo[e]pyrene	BDE 183
Selenium	PCB 87	PCB 195	Benzo[g,h,i]perylene	BDE 190
Silver	PCB 99	PCB 201	Benzo[k]fluoranthene	
Zinc	PCB 101	PCB 206	Biphenyl	
	PCB 105		Chrysene	Pyrethroids
	PCB 110		Dibenz[a,h]anthracene	Bifenthrin
	PCB 114		Fluoranthene	Cyfluthrin (total)
	PCB 118		Fluorene	Cypermethrin (total)
	PCB 119	Chlorinated	Indeno[1,2,3-c,d]pyrene	lambda-Cyhalothrin (total)
	PCB 123	Hydrocarbons	Naphthalene	cis-Permethrin
	PCB 126	4,4'-DDT	Perylene	trans-Permethrin
	PCB 128	2,4'-DDT	Phenanthrene	Deltamethrin
	PCB 138	4,4'-DDD	Pyrene	Esfenvalerate
	PCB 149	2,4'-DDD		
	PCB 151	4,4'-DDE		
	PCB 153	2,4'-DDE		Neonicotinoids
Other	PCB 156	4,4'-DDMU		acetamiprid
Constituents		alpha-		clothianidin
Total Organic		Chlordane		imidacloprid
Carbon		gamma-		thiacloprid
Total Nitrogen		Chlordane		thiamethoxam
Grain Size		cis-nonachlor		
		trans-nonachlor		Tire wear
		oxychlordane		6PPD-quinone
				Per- and Polyfluorinated
				Substances (PFAS)
				PFOS
				PFOA

Table II-5. State of California Office of Environmental Health and Hazard Assessment Shellfish Contaminant Goal (FCG) and Advisory Tissue Level (ATL).

Contaminant (ng/wet g)	Number 8 oz Meals Per Week		
	<Three	<Two	<One
DDTs*	520	1000	2100
methylMercury (women 18-45, child 1-17)	70	150	440
methylMercury (women >45, men)	220	440	1310
Selenium	2,500	4,900	15,000
PCBs*	21	42	120

*Congeners as listed in Table II-4

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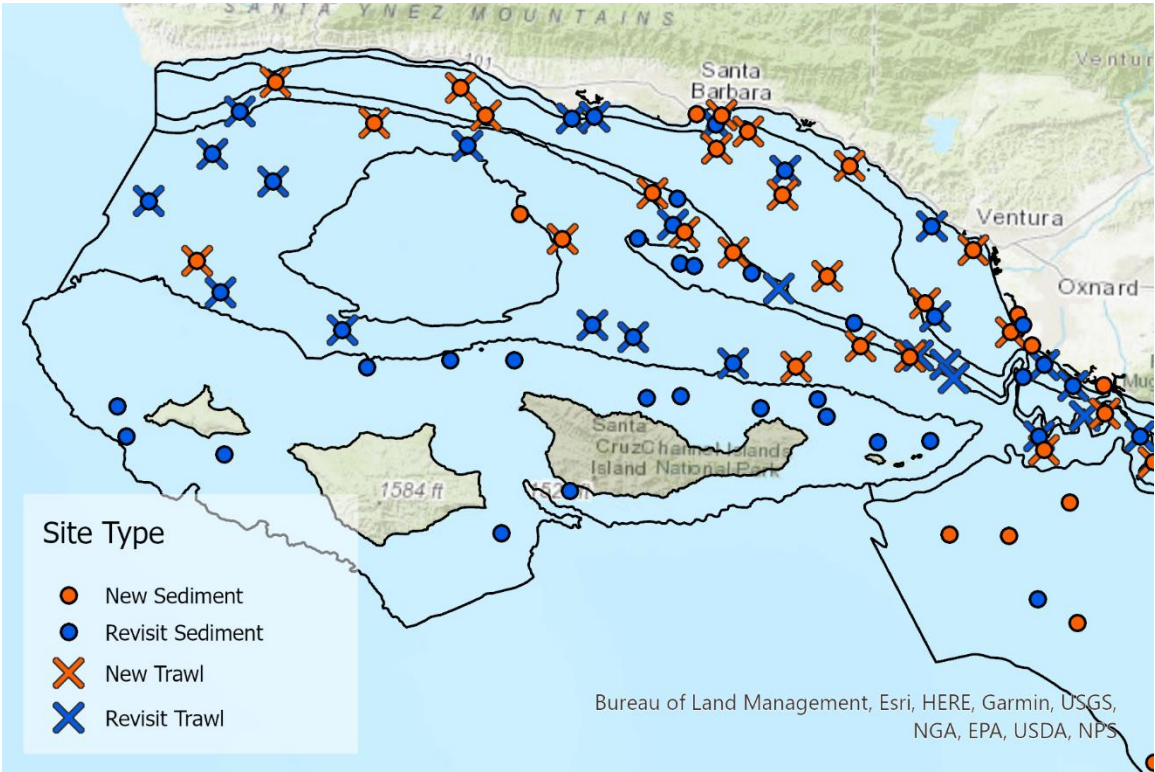
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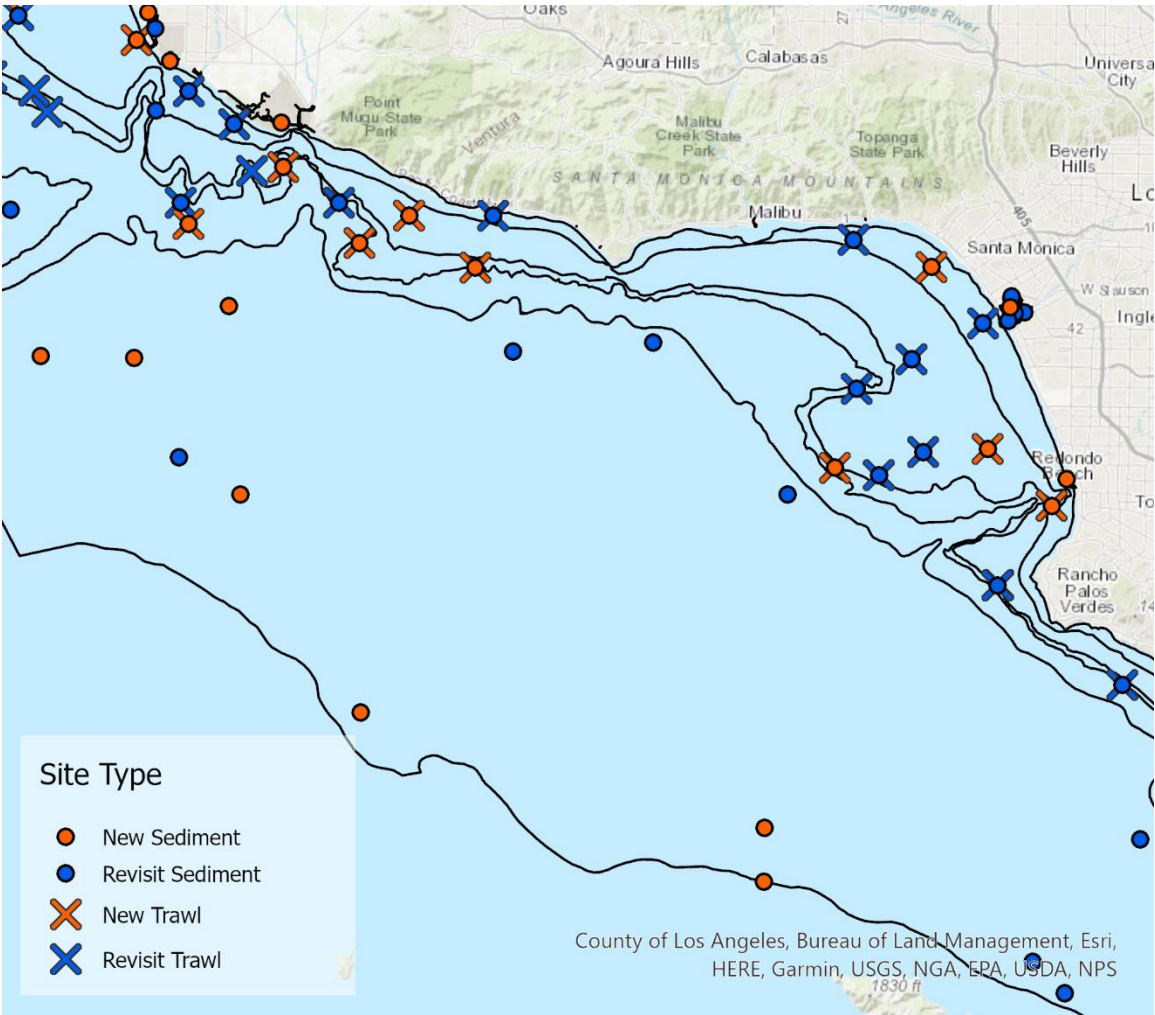
APPENDIX A

Sample Site Maps

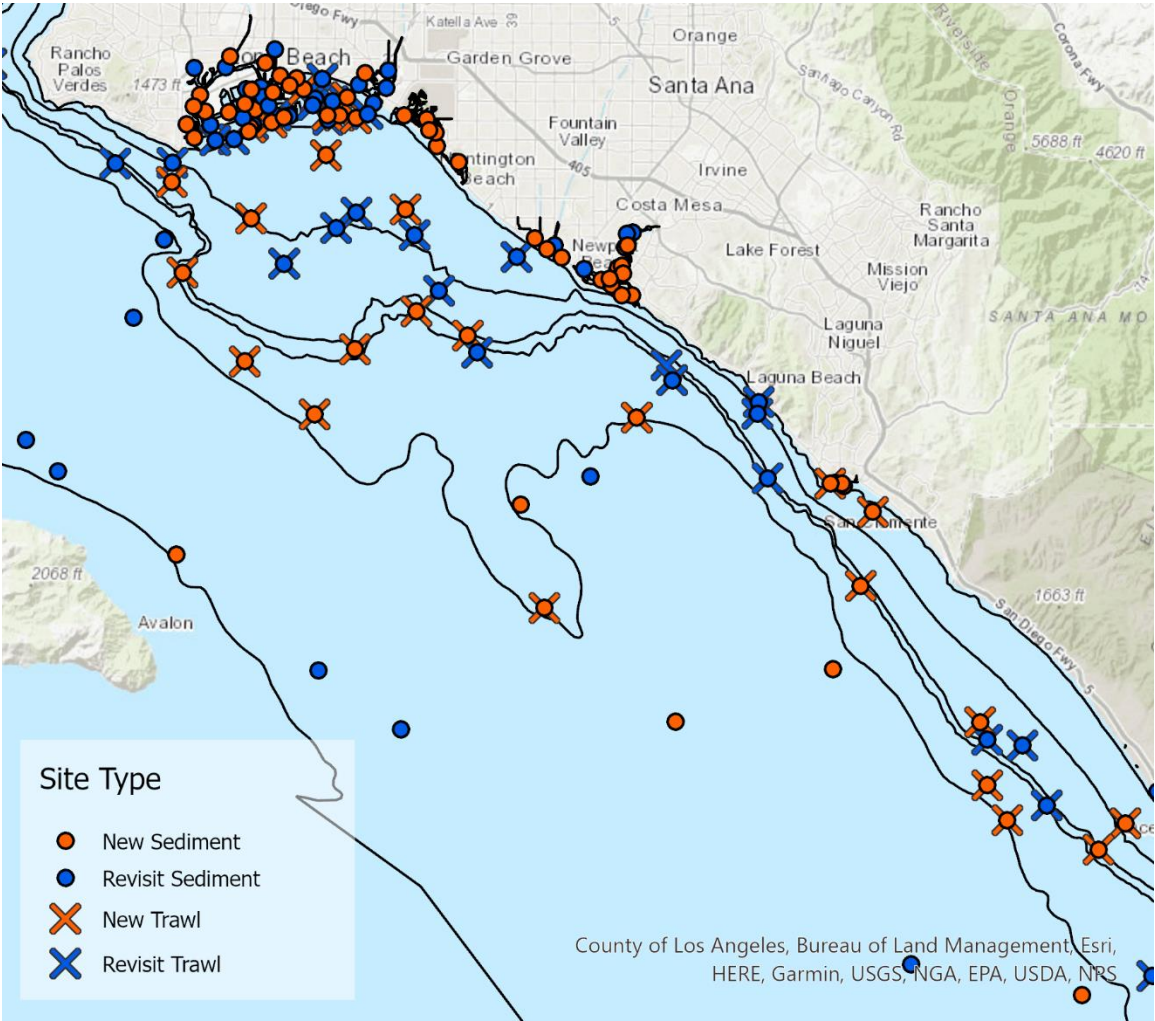
Santa Barbara Channel



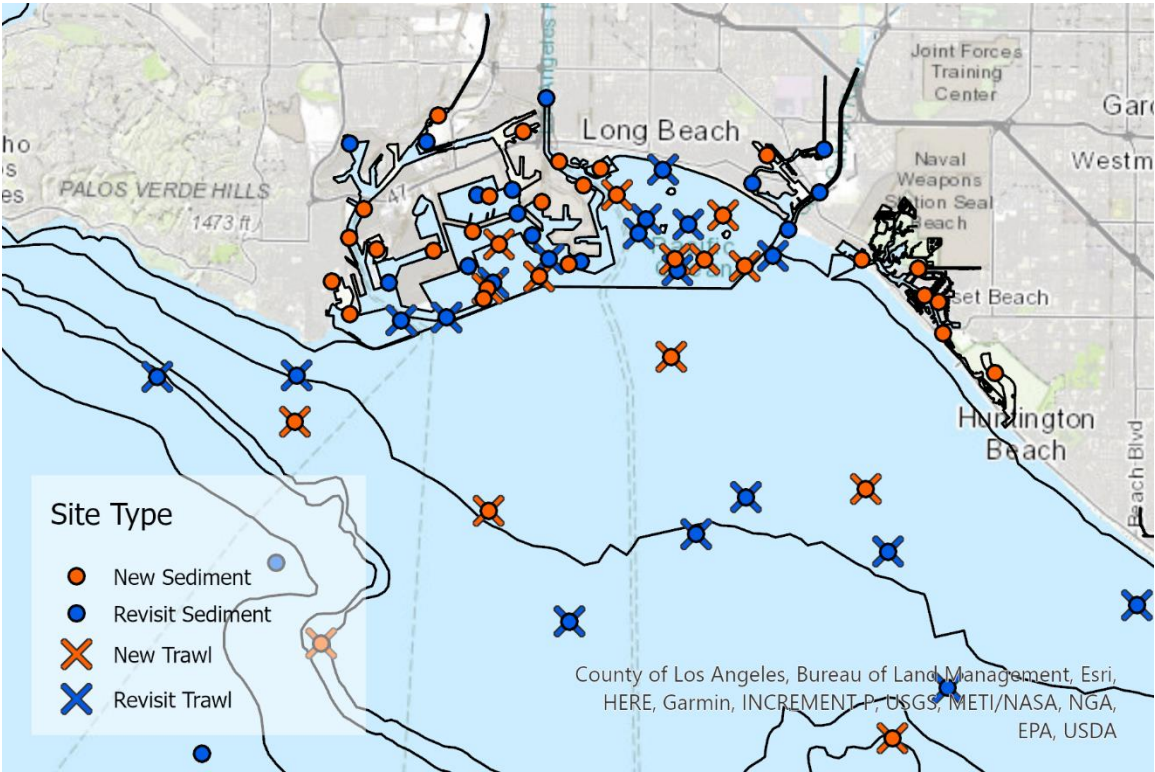
Hueneme to Santa Monica Bay



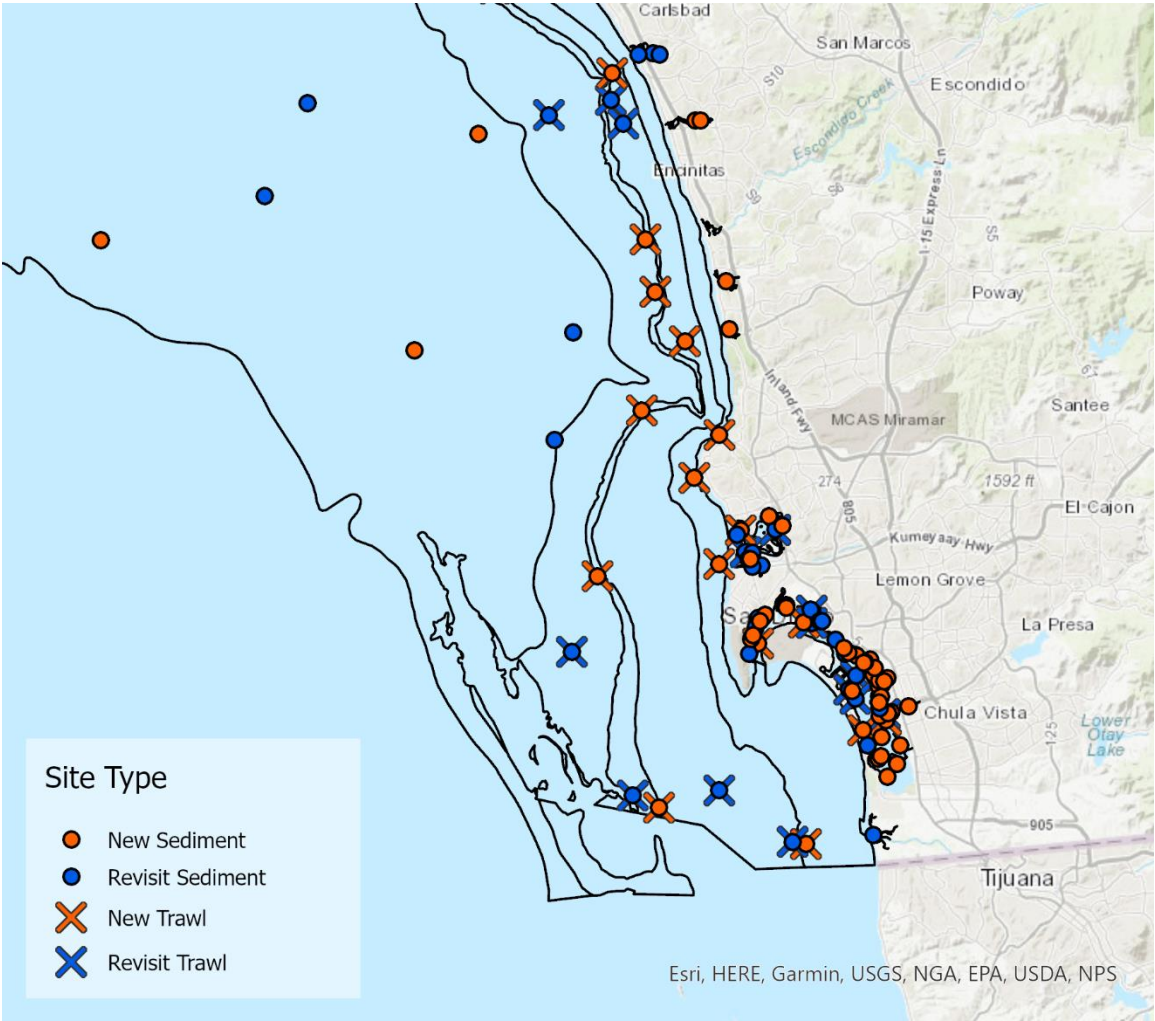
San Pedro Shelf and Channel



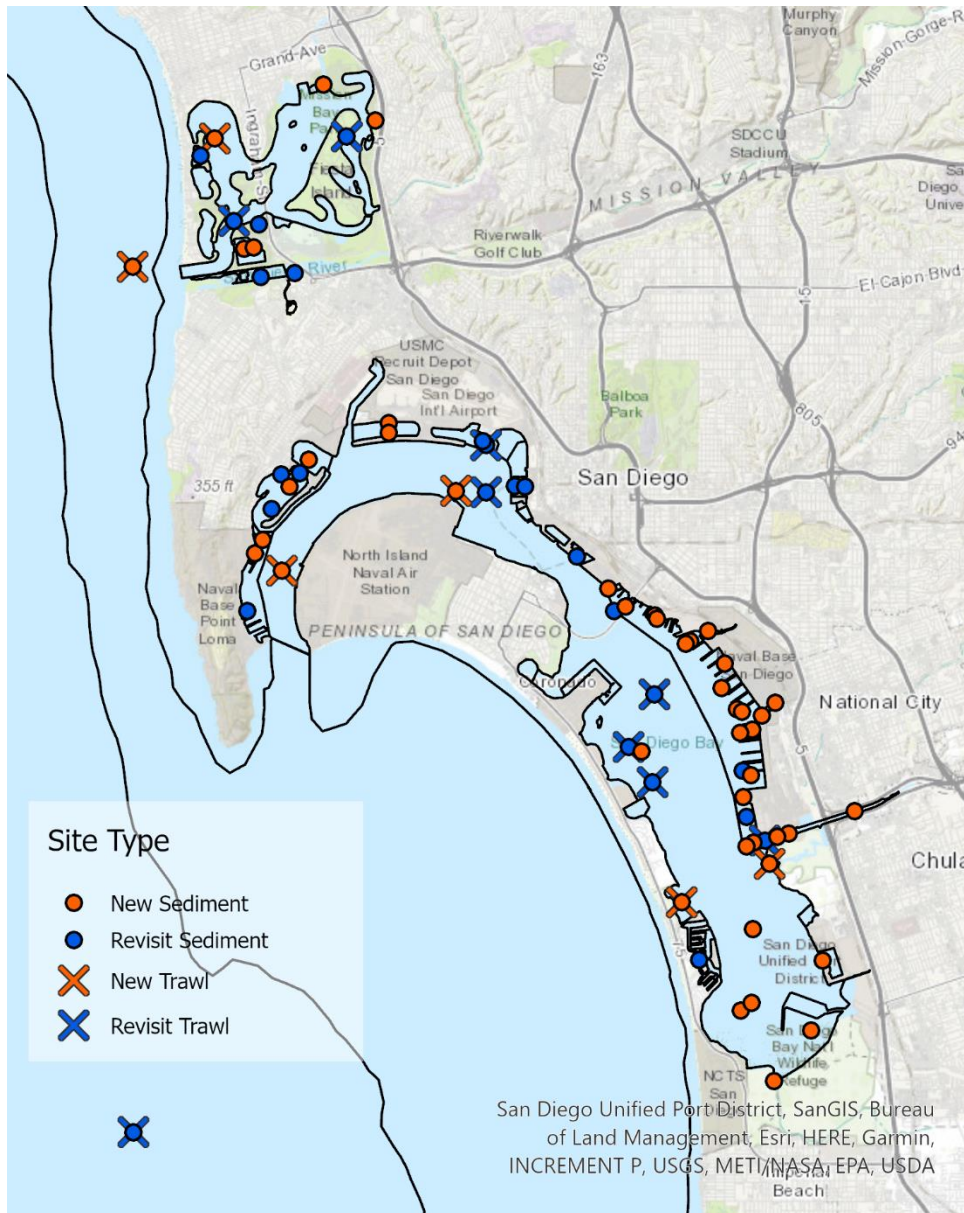
San Pedro Bay



San Diego County



San Diego Bay



APPENDIX B

Sample Site Information

Table B1. Station locations and assignments

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12000	32.60975778	-117.1074041	Bay	WSP	NA
B23-12001	32.61372177	-117.1237059	Bay	WSP	NA
B23-12002	32.61523442	-117.1213023	Bay	WSP	NA
B23-12003	32.62957595	-117.1209889	Bay	WSP	NA
B23-12004	32.63484778	-117.1374365	Bay	WSP	WSP
B23-12005	32.64237912	-117.1171243	Bay	WSP	WSP
B23-12006	32.64572789	-117.1224819	Bay	WSP	NA
B23-12007	32.64656507	-117.1207598	Bay	WSP	NA
B23-12008	32.646936	-117.118238	Bay	WSP	WSP
B23-12009	32.658339	-117.144218	Bay	WSP	WSP
B23-12010	32.66425975	-117.1468481	Bay	WSP	NA
B23-12011	32.665184	-117.149804	Bay	WSP	WSP
B23-12012	32.675472	-117.143841	Bay	WSP	WSP
B23-12013	32.67778154	-117.1516889	Bay	NIWC	NA
B23-12014	32.69954135	-117.2302084	Bay	WSP	WSP
B23-12015	32.707	-117.1899	Bay	NIWC	NA
B23-12016	32.7074	-117.185	Bay	NIWC	NA
B23-12017	32.70781154	-117.1867175	Bay	NIWC	NA
B23-12018	32.7095	-117.1869	Bay	NIWC	NA
B23-12019	32.714963	-117.182907	Bay	WSP	WSP
B23-12020	32.71521759	-117.1898728	Bay	WSP	WSP
B23-12021	32.724148	-117.182983	Bay	WSP	WSP
B23-12022	32.767905	-117.241481	Bay	WSP	WSP
B23-12023	32.78400692	-117.2459689	Bay	WSP	WSP
B23-12024	32.784475	-117.215358	Bay	WSP	WSP
B23-12025	32.78765623	-117.2087776	Bay	WSP	NA
B23-12026	32.79462135	-117.2208322	Bay	WSP	NA
B23-12027	33.71242	-118.2579	Bay	Anchor QEA	WSP
B23-12028	33.71345	-118.24131	Bay	Anchor QEA	WSP
B23-12029	33.71404264	-118.2767008	Bay	Anchor QEA	NA
B23-12030	33.72242279	-118.2264981	Bay	CLA-EMD	CLA-EMD
B23-12031	33.72421	-118.22437	Bay	Anchor QEA	WSP
B23-12032	33.72629656	-118.2076748	Bay	CLA-EMD	CLA-EMD
B23-12033	33.728683	-118.157	Bay	Anchor QEA	CLA-EMD
B23-12034	33.73017016	-118.1323816	Bay	CLA-EMD	CLA-EMD
B23-12035	33.73168	-118.20415	Bay	CLA-EMD	CLA-EMD
B23-12036	33.7321069	-118.1471714	Bay	CLA-EMD	CLA-EMD
B23-12037	33.7321069	-118.1579275	Bay	CLA-EMD	CLA-EMD
B23-12038	33.73598023	-118.2224645	Bay	CLA-EMD	CLA-EMD
B23-12039	33.7398	-118.171317	Bay	CLA-EMD	CLA-EMD
B23-12040	33.742717	-118.1532	Bay	CLA-EMD	CLA-EMD
B23-12041	33.744217	-118.168733	Bay	CLA-EMD	CLA-EMD

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12042	33.74566281	-118.1404488	Bay	CLA-EMD	CLA-EMD
B23-12043	33.75147183	-118.1794398	Bay	CLA-EMD	CLA-EMD
B23-12044	33.7594	-118.162667	Bay	Anchor QEA	CLA-EMD
B23-12345	33.91322	-119.94719	Channel Islands	NOAA/SCCWRP	NA
B23-12346	33.96426	-119.85254	Channel Islands	NOAA/SCCWRP	NA
B23-12347	33.99451	-120.33739	Channel Islands	NOAA/SCCWRP	NA
B23-12348	34.01217	-120.47562	Channel Islands	NOAA/SCCWRP	NA
B23-12349	34.03022	-119.42289	Channel Islands	NOAA/SCCWRP	NA
B23-12350	34.03352	-119.35002	Channel Islands	NOAA/SCCWRP	NA
B23-12351	34.04681	-120.48995	Channel Islands	NOAA/SCCWRP	NA
B23-12352	34.05855	-119.4961	Channel Islands	NOAA/SCCWRP	NA
B23-12353	34.06663	-119.58862	Channel Islands	NOAA/SCCWRP	NA
B23-12354	34.07505	-119.74828	Channel Islands	NOAA/SCCWRP	NA
B23-12355	34.07858	-119.70081	Channel Islands	NOAA/SCCWRP	NA
B23-12356	34.0788	-119.50937	Channel Islands	NOAA/SCCWRP	NA
B23-12357	34.1018	-120.14144	Channel Islands	NOAA/SCCWRP	NA
B23-12358	34.11255	-120.02533	Channel Islands	NOAA/SCCWRP	NA
B23-12359	34.11525	-119.93538	Channel Islands	NOAA/SCCWRP	NA
B23-12146	32.55662	-117.128214	Estuaries	WSP	NA
B23-12148	32.59995045	-117.1159763	Estuaries	WSP	NA
B23-12150	32.61784	-117.09824	Estuaries	WSP	NA
B23-12151	32.64768129	-117.1154022	Estuaries	WSP	NA
B23-12152	32.64823939	-117.1127234	Estuaries	WSP	NA
B23-12154	32.65264196	-117.097407	Estuaries	WSP	NA
B23-12155	32.68785593	-117.131475	Estuaries	WSP	NA
B23-12156	32.756983	-117.235297	Estuaries	Weston	NA
B23-12157	32.757755	-117.22732	Estuaries	Weston	NA
B23-12158	32.93424965	-117.256654	Estuaries	WSP	NA
B23-12159	32.97028865	-117.2594092	Estuaries	WSP	NA
B23-12160	33.09031244	-117.2869605	Estuaries	Weston	NA
B23-12161	33.08986	-117.27869	Estuaries	Weston	NA
B23-12162	33.139112	-117.337572	Estuaries	Weston	NA
B23-12163	33.139452	-117.31874	Estuaries	Weston	NA

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12164	33.140126	-117.324378	Estuaries	Weston	NA
B23-12165	33.23197	-117.41291	Estuaries	Weston	NA
B23-12166	33.62044316	-117.8969482	Estuaries	OCPW	NA
B23-12167	33.62203267	-117.893642	Estuaries	OCPW	NA
B23-12169	33.633786	-117.960269	Estuaries	OCPW	NA
B23-12170	33.63554225	-117.8908869	Estuaries	OCPW	NA
B23-12172	33.63713147	-117.8886828	Estuaries	OCPW	NA
B23-12173	33.64189896	-117.9713369	Estuaries	OCPW	NA
B23-12174	33.64579	-117.8889	Estuaries	OCPW	NA
B23-12175	33.64705	-117.88421	Estuaries	OCPW	NA
B23-12176	33.69829425	-118.0402154	Estuaries	OCPW	NA
B23-12177	33.71020402	-118.0595014	Estuaries	OCPW	NA
B23-12178	33.73004996	-118.0688688	Estuaries	OCPW	NA
B23-12179	33.74148	-118.11662	Estuaries	MBC	NA
B23-12180	33.75302	-118.10528	Estuaries	MBC	NA
B23-12181	33.76146179	-118.2008893	Estuaries	Anchor QEA	NA
B23-12182	33.766034	-118.103714	Estuaries	MBC	NA
B23-12184	33.97108	-118.43923	Estuaries	CLA-WPD	NA
B23-12186	34.18286888	-119.2304352	Estuaries	ABC	NA
B23-12976	33.23526	-117.4087708	Estuaries	Weston	NA
B23-12360	32.59482668	-117.0950371	Freshwater Estuary	WSP	NA
B23-12363	32.65833	-117.08308	Freshwater Estuary	WSP	NA
B23-12364	32.75951463	-117.2222461	Freshwater Estuary	Weston	NA
B23-12366	32.97714683	-117.2395465	Freshwater Estuary	WSP	NA
B23-12368	33.20341	-117.39078	Freshwater Estuary	Weston	NA
B23-12369	33.23799219	-117.3942326	Freshwater Estuary	Weston	NA
B23-12187	32.54967999	-117.187731	Inner Shelf	CSD	CSD
B23-12188	32.75889316	-117.2649815	Inner Shelf	CSD	CSD
B23-12189	32.82316785	-117.2870531	Inner Shelf	CSD	NA
B23-12190	32.85528778	-117.2649815	Inner Shelf	CSD	NA
B23-12191	33.20783842	-117.4415542	Inner Shelf	CSD	CSD
B23-12192	33.43942857	-117.6677879	Inner Shelf	OC San	OC San
B23-12193	33.520951	-117.770247	Inner Shelf	OC San	NA
B23-12194	33.627799	-117.987516	Inner Shelf	OC San	OC San
B23-12195	33.6434	-118.078743	Inner Shelf	OC San	OC San
B23-12196	33.65449282	-118.2250955	Inner Shelf	OC San	OC San
B23-12197	33.6596	-118.131	Inner Shelf	OC San	OC San
B23-12198	33.66244788	-118.0871481	Inner Shelf	OC San	OC San
B23-12199	33.6952	-118.296	Inner Shelf	LACSD	LACSD

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12200	33.70221213	-118.1588807	Inner Shelf	CLA-EMD	CLA-EMD
B23-12201	33.733383	-118.122033	Inner Shelf	Anchor QEA	CLA-EMD
B23-12202	33.962433	-118.476117	Inner Shelf	CLA-EMD	CLA-EMD
B23-12203	34.00381844	-118.5230619	Inner Shelf	CLA-EMD	CLA-EMD
B23-12204	34.0233	-118.593483	Inner Shelf	CLA-EMD	CLA-EMD
B23-12205	34.03669	-118.9171	Inner Shelf	LACSD	LACSD
B23-12206	34.10102	-119.15105	Inner Shelf	LACSD	LACSD
B23-12207	34.12488	-119.19248	Inner Shelf	LACSD	LACSD
B23-12208	34.16213022	-119.2403884	Inner Shelf	ABC	ABC
B23-12209	34.17863	-119.34714	Inner Shelf	ABC	ABC
B23-12210	34.19375704	-119.3617821	Inner Shelf	ABC	ABC
B23-12211	34.2569751	-119.2955673	Inner Shelf	ABC	ABC
B23-12212	34.28368	-119.35453	Inner Shelf	ABC	ABC
B23-12213	34.35171318	-119.47214	Inner Shelf	ABC	ABC
B23-12214	34.396139	-119.661999	Inner Shelf	ABC	ABC
B23-12215	34.398397	-119.864848	Inner Shelf	ABC	NA
B23-12216	34.40692768	-119.6542306	Inner Shelf	ABC	ABC
B23-12507	34.27277221	-119.3617821	Inner Shelf	NA	ABC
B23-12590	32.638253	-117.1601415	Inner Shelf	NA	CSD
B23-12591	32.5899513	-117.1932489	Inner Shelf	NA	CSD
B23-12750	33.65449282	-118.1368091	Inner Shelf	NA	OC San
B23-12315	32.85103	-117.41079	Lower Slope	CSD	NA
B23-12316	32.91753484	-117.5353541	Lower Slope	CSD	NA
B23-12317	32.93167	-117.39472	Lower Slope	CSD	NA
B23-12318	32.99858043	-117.8141851	Lower Slope	CSD	NA
B23-12319	33.03243	-117.66875	Lower Slope	CSD	NA
B23-12320	33.07955166	-117.4795879	Lower Slope	CSD	NA
B23-12321	33.10192	-117.6311	Lower Slope	CSD	NA
B23-12322	33.274032	-118.086377	Lower Slope	OC San	NA
B23-12323	33.28165371	-117.8420683	Lower Slope	OC San	NA
B23-12324	33.317468	-118.160612	Lower Slope	OC San	NA
B23-12325	33.32201814	-117.7026527	Lower Slope	OC San	NA
B23-12326	33.40269093	-118.288198	Lower Slope	OC San	NA
B23-12327	33.44299927	-117.9814838	Lower Slope	OC San	NA
B23-12328	33.46395	-118.39474	Lower Slope	OC San	NA
B23-12329	33.46425	-117.919678	Lower Slope	OC San	NA
B23-12330	33.48691	-118.42353	Lower Slope	OC San	NA
B23-12331	33.54368819	-118.6646199	Lower Slope	LACSD	NA
B23-12332	33.57922	-118.32894	Lower Slope	OC San	NA
B23-12333	33.58393096	-118.6646199	Lower Slope	LACSD	NA
B23-12334	33.63781	-118.30256	Lower Slope	OC San	NA
B23-12335	33.66436021	-119.0271003	Lower Slope	OC San	NA
B23-12336	33.82499325	-119.1386328	Lower Slope	LACSD	NA
B23-12337	33.83245	-118.64885	Lower Slope	LACSD	NA

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12338	33.85208	-119.19431	Lower Slope	LACSD	NA
B23-12339	33.92523599	-119.2362237	Lower Slope	LACSD	NA
B23-12340	33.92523599	-119.319873	Lower Slope	LACSD	NA
B23-12341	33.93569	-118.89715	Lower Slope	LACSD	NA
B23-12342	33.94426667	-118.7714333	Lower Slope	LACSD	NA
B23-12343	33.9653001	-119.1525743	Lower Slope	LACSD	NA
B23-12344	34.28513306	-119.9333013	Lower Slope	NOAA/SCCWRP	NA
B23-12045	32.6234792	-117.1047797	Marina	WSP	NA
B23-12046	32.623601	-117.13346	Marina	WSP	NA
B23-12047	32.711543	-117.232552	Marina	WSP	NA
B23-12048	32.71600482	-117.228427	Marina	WSP	NA
B23-12049	32.718402	-117.2304	Marina	WSP	NA
B23-12050	32.718569	-117.226112	Marina	WSP	NA
B23-12051	32.72124911	-117.2240427	Marina	WSP	NA
B23-12052	32.725018	-117.183684	Marina	WSP	NA
B23-12053	32.72649137	-117.2055293	Marina	WSP	NA
B23-12054	32.72839788	-117.2055293	Marina	WSP	NA
B23-12055	32.76247028	-117.239165	Marina	WSP	NA
B23-12056	32.76270812	-117.2369318	Marina	WSP	NA
B23-12057	32.767196	-117.235646	Marina	WSP	NA
B23-12058	32.780705	-117.249278	Marina	WSP	NA
B23-12059	33.20438734	-117.3913206	Marina	WSP	NA
B23-12060	33.20825	-117.396637	Marina	WSP	WSP
B23-12061	33.20946123	-117.3953086	Marina	WSP	NA
B23-12062	33.21289313	-117.3946745	Marina	WSP	NA
B23-12063	33.45859519	-117.6935947	Marina	WSP	NA
B23-12064	33.46030933	-117.7060066	Marina	WSP	WSP
B23-12065	33.46041262	-117.6956909	Marina	WSP	NA
B23-12066	33.46101842	-117.7019795	Marina	WSP	NA
B23-12067	33.60010701	-117.883954	Marina	OC San	NA
B23-12068	33.60010701	-117.8931131	Marina	OC San	NA
B23-12069	33.6076572	-117.9022721	Marina	OC San	NA
B23-12070	33.609098	-117.904639	Marina	OC San	NA
B23-12071	33.61143205	-117.9114312	Marina	OC San	NA
B23-12072	33.61237574	-117.9042348	Marina	OC San	NA
B23-12073	33.61615038	-117.8924589	Marina	OCPW	NA
B23-12074	33.61925	-117.926921	Marina	OC San	NA
B23-12075	33.71988818	-118.0612473	Marina	OCPW	NA
B23-12076	33.72177316	-118.066481	Marina	OCPW	NA
B23-12077	33.72412115	-118.2835167	Marina	Anchor QEA	NA
B23-12078	33.755483	-118.129894	Marina	MBC	NA
B23-12079	33.75946414	-118.1855488	Marina	Anchor QEA	NA
B23-12080	33.76417434	-118.1247065	Marina	MBC	NA
B23-12081	33.767	-118.24938	Marina	Anchor QEA	NA

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12082	33.84703161	-118.3994783	Marina	MBC	NA
B23-12083	33.9647	-118.453517	Marina	Weston	NA
B23-12084	33.970367	-118.447683	Marina	Weston	NA
B23-12085	33.9749258	-118.4518158	Marina	Weston	NA
B23-12086	33.983083	-118.45075	Marina	Weston	NA
B23-12087	34.1712	-119.22348	Marina	ABC	NA
B23-12088	34.40701835	-119.6889431	Marina	ABC	NA
B23-12811	33.72460056	-118.072369	Marina	OCPW	NA
B23-12841	32.72363152	-117.2271186	Marina	WSP	NA
B23-12217	32.55148	-117.1995	Mid Shelf	CSD	CSD
B23-12218	32.57667732	-117.3174967	Mid Shelf	CSD	CSD
B23-12219	32.58969	-117.26429	Mid Shelf	CSD	CSD
B23-12220	32.92524108	-117.2957437	Mid Shelf	CSD	CSD
B23-12221	33.08764	-117.35097	Mid Shelf	CSD	CSD
B23-12222	33.10526	-117.36216	Mid Shelf	CSD	CSD
B23-12223	33.12530934	-117.3610026	Mid Shelf	CSD	CSD
B23-12224	33.265584	-117.533447	Mid Shelf	CSD	CSD
B23-12225	33.269751	-117.564827	Mid Shelf	CSD	CSD
B23-12226	33.28293675	-117.5712814	Mid Shelf	CSD	CSD
B23-12227	33.512166	-117.771484	Mid Shelf	OC San	NA
B23-12228	33.601949	-118.056462	Mid Shelf	OC San	OC San
B23-12229	33.621	-118.195	Mid Shelf	OC San	OC San
B23-12230	33.6481	-118.149	Mid Shelf	OC San	OC San
B23-12231	33.68098625	-118.2963806	Mid Shelf	OC San	LACSD
B23-12232	33.8271742	-118.4123965	Mid Shelf	LACSD	LACSD
B23-12233	33.84815	-118.56745	Mid Shelf	CLA-EMD	CLA-EMD
B23-12234	33.86583333	-118.5281	Mid Shelf	CLA-EMD	CLA-EMD
B23-12235	33.86889638	-118.4704044	Mid Shelf	LACSD	LACSD
B23-12236	33.93486	-118.53976	Mid Shelf	CLA-EMD	CLA-EMD
B23-12237	34.03558115	-118.9924759	Mid Shelf	LACSD	LACSD
B23-12238	34.22271077	-119.5000453	Mid Shelf	ABC	ABC
B23-12239	34.3161201	-119.5653042	Mid Shelf	ABC	ABC
B23-12240	34.34406	-119.56253	Mid Shelf	ABC	ABC
B23-12241	34.36796931	-119.6595671	Mid Shelf	ABC	ABC
B23-12242	34.38870002	-119.6160612	Mid Shelf	ABC	ABC
B23-12243	34.39906345	-119.9858618	Mid Shelf	NOAA/SCCWRP	unassigned
B23-12244	34.400981	-119.832791	Mid Shelf	ABC	ABC
B23-12245	34.43014604	-120.2831524	Mid Shelf	NOAA/SCCWRP	unassigned
B23-12246	34.43014604	-120.0221167	Mid Shelf	NOAA/SCCWRP	unassigned
B23-12770	33.59733845	-117.977337	Mid Shelf	NA	OC San
B23-12247	32.58574	-117.3407	Outer Shelf	CSD	CSD
B23-12248	32.74951595	-117.372475	Outer Shelf	CSD	CSD
B23-12249	32.87344709	-117.3337777	Outer Shelf	CSD	CSD
B23-12250	33.18812677	-117.4653487	Outer Shelf	CSD	CSD

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12251	33.221016	-117.511475	Outer Shelf	CSD	CSD
B23-12252	33.38422991	-117.6781841	Outer Shelf	OC San	OC San
B23-12253	33.464034	-117.761898	Outer Shelf	OC San	OC San
B23-12254	33.547898	-117.85292	Outer Shelf	NA	OC San
B23-12255	33.55755276	-118.1309432	Outer Shelf	OC San	OC San
B23-12256	33.56872297	-118.03033	Outer Shelf	OC San	OC San
B23-12257	33.61338936	-118.2857326	Outer Shelf	OC San	OC San
B23-12258	33.7671	-118.46	Outer Shelf	LACSD	LACSD
B23-12259	33.76745	-118.45903	Outer Shelf	NA	LACSD
B23-12260	33.85307446	-118.6069206	Outer Shelf	LACSD	LACSD
B23-12261	33.91223333	-118.5884667	Outer Shelf	LACSD	LACSD
B23-12262	33.99767511	-118.9319784	Outer Shelf	LACSD	LACSD
B23-12263	34.014344	-119.0364613	Outer Shelf	LACSD	LACSD
B23-12264	34.04413	-119.05558	Outer Shelf	LACSD	LACSD
B23-12265	34.06644	-119.13415	Outer Shelf	LACSD	LACSD
B23-12266	34.06988333	-119.1061165	Outer Shelf	LACSD	LACSD
B23-12267	34.10717	-119.31902	Outer Shelf	NA	LACSD
B23-12268	34.11009	-119.22178	Outer Shelf	LACSD	NA
B23-12269	34.12281	-119.33129	Outer Shelf	NA	LACSD
B23-12270	34.13093456	-119.3808677	Outer Shelf	LACSD	LACSD
B23-12271	34.132675	-119.369899	Outer Shelf	NA	LACSD
B23-12272	34.1329	-119.37902	Outer Shelf	NA	LACSD
B23-12273	34.16897	-119.46088	Outer Shelf	ABC	NA
B23-12274	34.20677	-119.56748	Outer Shelf	NA	unassigned
B23-12275	34.22412	-119.60608	Outer Shelf	ABC	NA
B23-12276	34.2303	-119.68726	Outer Shelf	ABC	NA
B23-12277	34.23287	-119.70663	Outer Shelf	ABC	NA
B23-12278	34.24736452	-119.6324005	Outer Shelf	ABC	ABC
B23-12279	34.26088	-119.76726	Outer Shelf	NOAA/SCCWRP	NA
B23-12280	34.26952343	-119.7020558	Outer Shelf	ABC	ABC
B23-12281	34.27783	-119.71844	Outer Shelf	ABC	ABC
B23-12282	34.30786	-119.71283	Outer Shelf	ABC	NA
B23-12283	34.31382373	-119.7484926	Outer Shelf	ABC	ABC
B23-12284	34.39477	-120.33174	Outer Shelf	NOAA/SCCWRP	NA
B23-12089	32.65155	-117.122464	Port	WSP	NA
B23-12090	32.65545396	-117.1231586	Port	WSP	NA
B23-12091	32.6597334	-117.1214948	Port	WSP	NA
B23-12092	32.66030936	-117.1202512	Port	NIWC	NA
B23-12093	32.660613	-117.12339	Port	WSP	NA
B23-12094	32.666	-117.12	Port	NIWC	NA
B23-12095	32.66797048	-117.1239158	Port	WSP	NA
B23-12096	32.66855881	-117.1210913	Port	WSP	NA
B23-12097	32.67135408	-117.1189646	Port	WSP	NA
B23-12098	32.67208874	-117.1235123	Port	WSP	NA

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12099	32.67267704	-117.1247228	Port	WSP	NA
B23-12100	32.67279748	-117.1171679	Port	NIWC	NA
B23-12101	32.67329697	-117.127103	Port	NIWC	NA
B23-12102	32.67385364	-117.1158457	Port	WSP	NA
B23-12103	32.67679508	-117.1283544	Port	WSP	NA
B23-12104	32.6784	-117.1243	Port	NIWC	NA
B23-12105	32.67889366	-117.1604615	Port	NIWC	NA
B23-12106	32.67944971	-117.1558845	Port	NIWC	NA
B23-12107	32.68150118	-117.1275474	Port	WSP	NA
B23-12108	32.6832	-117.1292	Port	NIWC	NA
B23-12109	32.68534554	-117.1366413	Port	WSP	NA
B23-12110	32.68590341	-117.1354932	Port	WSP	NA
B23-12111	32.68800385	-117.2379118	Port	NIWC	NA
B23-12112	32.68943527	-117.2361933	Port	NIWC	NA
B23-12113	32.68943527	-117.2388937	Port	NIWC	NA
B23-12114	32.69032444	-117.1432841	Port	WSP	NA
B23-12115	32.69091263	-117.1436876	Port	WSP	NA
B23-12116	32.691687	-117.238244	Port	WSP	NA
B23-12117	32.691721	-117.153217	Port	WSP	NA
B23-12118	32.69267716	-117.1505472	Port	WSP	NA
B23-12119	32.69620613	-117.1545822	Port	WSP	NA
B23-12120	32.7024	-117.16178	Port	WSP	NA
B23-12121	32.70286499	-117.2364596	Port	WSP	NA
B23-12122	32.70559088	-117.2347191	Port	WSP	NA
B23-12123	32.716092	-117.173953	Port	WSP	NA
B23-12124	32.71619	-117.176237	Port	WSP	NA
B23-12125	33.71930692	-118.2278591	Port	CLA-EMD	NA
B23-12126	33.72387	-118.2627	Port	CLA-EMD	NA
B23-12127	33.72924	-118.23361	Port	CLA-EMD	NA
B23-12128	33.73018209	-118.1968235	Port	CLA-EMD	NA
B23-12129	33.7311	-118.1924	Port	Anchor QEA	NA
B23-12130	33.73259861	-118.089457	Port	MBC	NA
B23-12131	33.73380684	-118.2463127	Port	Anchor QEA	NA
B23-12132	33.733914	-118.2672361	Port	Anchor QEA	NA
B23-12133	33.73743144	-118.2773483	Port	Anchor QEA	NA
B23-12134	33.73891	-118.21039	Port	CLA-EMD	NA
B23-12135	33.73984775	-118.2320531	Port	CLA-EMD	NA
B23-12136	33.74553	-118.2157	Port	CLA-EMD	NA
B23-12137	33.74626629	-118.2720877	Port	Anchor QEA	NA
B23-12138	33.74904417	-118.2068779	Port	Anchor QEA	NA
B23-12139	33.75072032	-118.2261815	Port	CLA-EMD	NA
B23-12140	33.75109	-118.23063	Port	Anchor QEA	NA
B23-12141	33.75269	-118.21776	Port	Anchor QEA	NA
B23-12142	33.7543442	-118.1917907	Port	Anchor QEA	NA

Station ID	Latitude	Longitude	Stratum	Sediment Grab	Trawl
B23-12143	33.7662	-118.27747	Port	Anchor QEA	NA
B23-12144	33.77053509	-118.2141574	Port	Anchor QEA	NA
B23-12145	33.77524349	-118.2453679	Port	Anchor QEA	NA
B23-12285	32.6929	-117.39491	Upper Slope	CSD	CSD
B23-12286	32.96209388	-117.3220185	Upper Slope	CSD	CSD
B23-12287	33.00124403	-117.3310005	Upper Slope	CSD	NA
B23-12288	33.09383	-117.41715	Upper Slope	CSD	CSD
B23-12289	33.20975129	-117.5465669	Upper Slope	CSD	CSD
B23-12290	33.23577988	-117.5645308	Upper Slope	CSD	CSD
B23-12291	33.36580662	-117.959736	Upper Slope	OC San	OC San
B23-12292	33.50861191	-118.1663205	Upper Slope	OC San	OC San
B23-12293	33.50861191	-117.8788986	Upper Slope	OC San	OC San
B23-12294	33.536816	-117.847705	Upper Slope	OC San	OC San
B23-12295	33.547518	-118.2291941	Upper Slope	OC San	OC San
B23-12296	33.556099	-118.021956	Upper Slope	OC San	OC San
B23-12297	33.58640657	-118.0765012	Upper Slope	OC San	OC San
B23-12298	33.6942	-118.347	Upper Slope	OC San	LACSD
B23-12299	34.02591695	-119.1902612	Upper Slope	LACSD	unassigned
B23-12300	34.0416	-119.19757	Upper Slope	LACSD	unassigned
B23-12301	34.11612372	-119.5405568	Upper Slope	LACSD	LACSD
B23-12302	34.11828	-119.6289	Upper Slope	LACSD	LACSD
B23-12303	34.14187944	-119.4507374	Upper Slope	LACSD	unassigned
B23-12304	34.144	-120.17799	Upper Slope	NOAA/SCCWRP	unassigned
B23-12305	34.1457	-119.76997	Upper Slope	LACSD	unassigned
B23-12306	34.15835	-119.82779	Upper Slope	LACSD	unassigned
B23-12307	34.18321	-120.35063	Upper Slope	NOAA/SCCWRP	unassigned
B23-12308	34.21909949	-120.3848588	Upper Slope	NOAA/SCCWRP	unassigned
B23-12309	34.257683	-119.8728884	Upper Slope	NOAA/SCCWRP	unassigned
B23-12310	34.28685	-120.45566	Upper Slope	NOAA/SCCWRP	unassigned
B23-12311	34.31423	-120.28184	Upper Slope	NOAA/SCCWRP	unassigned
B23-12312	34.34418	-120.36868	Upper Slope	NOAA/SCCWRP	unassigned
B23-12313	34.36292	-120.0104	Upper Slope	NOAA/SCCWRP	unassigned
B23-12314	34.38616691	-120.1423465	Upper Slope	NOAA/SCCWRP	unassigned
B23-12630	32.64826879	-117.3759101	Upper Slope	NA	CSD

APPENDIX C

Sample Laboratory Assignments

Table C1. Sediment Laboratory Assignments

Station ID	Tox - Mytl	Tox - Eoh	Grain Size	TOC	TN	Metals	PAH	CHC	PCB	Pyreth	PBDE	Infauna
B23-12000	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12001	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12002	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12003	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12004	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12005	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12006	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12007	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12008	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12009	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12010	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12011	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12012	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12013	NIWC	NIWC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12014	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12015	NIWC	NIWC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12016	NIWC	NIWC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12017	NIWC	NIWC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12018	NIWC	NIWC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12019	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12020	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12021	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12022	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12023	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12024	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12025	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12026	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12027	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12028	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12029	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12030	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD

Station ID	Tox - Mytl	Tox - Eoh	Grain Size	TOC	TN	Metals	PAH	CHC	PCB	Pyreth	PBDE	Infauna
B23-12031	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12032	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12033	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12034	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12035	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12036	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12037	SCCWRP/u nassigned	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12038	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12039	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12040	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12041	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12042	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12043	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12044	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12345	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC	ABC	ABC	NA	NA	NOAA/ SCCWRP
B23-12346	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC	ABC	ABC	NA	NA	NOAA/ SCCWRP
B23-12347	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP
B23-12348	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP
B23-12349	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP
B23-12350	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP
B23-12351	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP
B23-12352	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP
B23-12353	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP
B23-12354	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP
B23-12355	NA	NOAA/ SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	CSD	CSD	CSD	NA	NA	NOAA/ SCCWRP

[illegible]

Station ID	Tox - Mytl	Tox - Eoh	Grain Size	TOC	TN	Metals	PAH	CHC	PCB	Pyreth	PBDE	Infauna
B23-12177	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12178	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12179	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12180	ABC	OCPW	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	OC San
B23-12181	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12182	ABC	OCPW	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	OC San
B23-12184	SCCWRP/ unassigned	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	OC San
B23-12186	ABC	OCPW	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	SCCWRP/ unassigned
B23-12976	Enthalpy	Enthalpy	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	MTS/DCE
B23-12360	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12363	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12364	Enthalpy	Enthalpy	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	MTS/DCE
B23-12366	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12368	Enthalpy	Enthalpy	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	MTS/DCE
B23-12369	Enthalpy	Enthalpy	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	MTS/DCE
B23-12187	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12188	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12189	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12190	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12191	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12192	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12193	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12194	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12195	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12196	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12197	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12198	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12199	NA	LACSD	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12200	NA	NA	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	NA	NA	CLA-EMD
B23-12201	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	NA	NA	ABC/DCE
B23-12202	NA	NA	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	NA	NA	CLA-EMD

Station ID	Tox - Mytl	Tox - Eoh	Grain Size	TOC	TN	Metals	PAH	CHC	PCB	Pyreth	PBDE	Infauna
B23-12203	NA	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	NA	NA	CLA-EMD
B23-12204	NA	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	NA	NA	CLA-EMD
B23-12205	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12206	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12207	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12208	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12209	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12210	NA	LACSD	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12211	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12212	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12213	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12214	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	CLA-EMD
B23-12215	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	CLA-EMD
B23-12216	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	CLA-EMD
B23-12507	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12590	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12591	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12750	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12315	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12316	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12317	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12318	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12319	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12320	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12321	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12322	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12323	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12324	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12325	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12326	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12327	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12328	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San

[illegible]

Station ID	Tox - Mytl	Tox - Eoh	Grain Size	TOC	TN	Metals	PAH	CHC	PCB	Pyreth	PBDE	Infauna
B23-12061	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12062	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12063	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12064	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12065	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12066	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12067	ABC	OC San	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12068	ABC	OC San	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12069	ABC	OC San	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12070	ABC	OC San	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12071	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12072	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12073	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12074	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12075	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12076	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12077	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12078	ABC	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	MBC
B23-12079	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12080	ABC	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	MBC
B23-12081	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12082	ABC	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	MBC
B23-12083	Enthalpy	Enthalpy	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	MTS/DCE
B23-12084	Enthalpy	Enthalpy	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	MTS/DCE
B23-12085	Enthalpy	Enthalpy	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	MTS/DCE
B23-12086	Enthalpy	Enthalpy	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	MTS/DCE
B23-12087	ABC	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	OC San
B23-12088	ABC	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	OC San
B23-12811	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12841	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12217	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12218	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD

Station ID	Tox - Mytl	Tox - Eoh	Grain Size	TOC	TN	Metals	PAH	CHC	PCB	Pyreth	PBDE	Infauna
B23-12219	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12220	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12221	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12222	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12223	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12224	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12225	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12226	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12227	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12228	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12229	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12230	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12231	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12232	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12233	NA	NA	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	NA	NA	CLA-EMD
B23-12234	NA	NA	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	NA	NA	CLA-EMD
B23-12235	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12236	NA	NA	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	NA	NA	CLA-EMD
B23-12237	NA	LACSD	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12238	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12239	NA	OCPW	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12240	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12241	NA	LACSD	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12242	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	CLA-EMD
B23-12243	NA	LACSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12244	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	CLA-EMD
B23-12245	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	CSD
B23-12246	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	CSD
B23-12770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12247	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12248	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12249	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD

Station ID	Tox - Mytl	Tox - Eoh	Grain Size	TOC	TN	Metals	PAH	CHC	PCB	Pyreth	PBDE	Infauna
B23-12250	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12251	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12252	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12253	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12254	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12255	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12256	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12257	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	OC San
B23-12258	NA	LACSD	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12259	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12260	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12261	NA	LACSD	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12262	NA	LACSD	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12263	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12264	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12265	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12266	NA	LACSD	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12267	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12268	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12269	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12270	NA	NA	PHYSIS	LACSD	Weck	LACSD	LACSD	LACSD	LACSD	NA	NA	LACSD
B23-12271	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12272	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12273	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12274	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B23-12275	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC	ABC	ABC	NA	NA	ABC
B23-12276	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC	ABC	ABC	NA	NA	ABC
B23-12277	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC	ABC	ABC	NA	NA	ABC
B23-12278	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC	ABC	ABC	NA	NA	ABC
B23-12279	NA	NA	OC San	OC San	OC San	OC San	OC San	OC San	OC San	NA	NA	CSD
B23-12280	NA	CSD	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC
B23-12281	NA	NA	CSD	CSD	CSD	CSD	ABC	ABC	ABC	NA	NA	ABC

[illegible]

Station ID	Tox - Mytl	Tox - Eoh	Grain Size	TOC	TN	Metals	PAH	CHC	PCB	Pyreth	PBDE	Infauna
B23-12118	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12119	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12120	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12121	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12122	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12123	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12124	WSP	WSP	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	EcoAnalysts
B23-12125	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12126	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12127	SCCWRP/ unassigned	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12128	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12129	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12130	SCCWRP/ unassigned	CSD	CSD	CSD	CSD	CSD	CSD	CSD	CSD	PHYSIS	PHYSIS	SCCWRP/ unassigned
B23-12131	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12132	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12133	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12134	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12135	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12136	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12137	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12138	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12139	ABC	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	CLA-EMD	PHYSIS	PHYSIS	CLA-EMD
B23-12140	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12141	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12142	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12143	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12144	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12145	ABC	ABC	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	PHYSIS	ABC/DCE
B23-12285	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12286	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD
B23-12287	NA	NA	CSD	CSD	CSD	CSD	CSD	CSD	CSD	NA	NA	CSD

[illegible]

Table C3. Sediment CECs Laboratory Assignments

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinone	Neonic
B23-12000	Bay	NA	NA	NA	NA	NA	NA
B23-12001	Bay	NA	NA	NA	NA	NA	NA
B23-12002	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12003	Bay	NA	NA	NA	NA	NA	NA
B23-12004	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12005	Bay	NA	NA	NA	NA	NA	NA
B23-12006	Bay	NA	NA	NA	NA	NA	NA
B23-12007	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12008	Bay	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12009	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12010	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12011	Bay	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	NA	PHYSIS	PHYSIS
B23-12012	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12013	Bay	NA	NA	NA	NA	NA	NA
B23-12014	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12015	Bay	NA	NA	NA	NA	NA	NA
B23-12016	Bay	NA	NA	NA	NA	NA	NA
B23-12017	Bay	NA	NA	NA	NA	NA	NA
B23-12018	Bay	NA	NA	NA	NA	NA	NA
B23-12019	Bay	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12020	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12021	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12022	Bay	OPC/SCCWRP	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12023	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12024	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12025	Bay	NA	NA	NA	NA	NA	NA
B23-12026	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12027	Bay	OPC/SCCWRP	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12028	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12029	Bay	NA	NA	NA	NA	NA	NA

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinione	Neonic
B23-12030	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12031	Bay	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12032	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12033	Bay	OPC/SCCWRP	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12034	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12035	Bay	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12036	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12037	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12038	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12039	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12040	Bay	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12041	Bay	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12042	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12043	Bay	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12044	Bay	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12146	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12148	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12150	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12151	Estuaries	NA	NA	NA	NA	NA	NA
B23-12152	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12154	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12155	Estuaries	NA	NA	NA	NA	NA	NA
B23-12156	Estuaries	NA	NA	NA	NA	NA	NA
B23-12157	Estuaries	NA	NA	NA	NA	NA	NA
B23-12158	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12159	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12160	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12161	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12162	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12163	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12164	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12165	Estuaries	NA	NA	NA	NA	NA	NA

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinione	Neonic
B23-12166	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12167	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12169	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12170	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12172	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12173	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12174	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12175	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12176	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12177	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12178	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12179	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12180	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12181	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12182	Estuaries	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12184	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12186	Estuaries	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12976	Estuaries	NA	NA	NA	NA	NA	NA
B23-12187	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12188	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12189	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12190	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12191	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12192	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12193	Inner Shelf	OPC/SCCWRP	NA	Weck	Weck	Weck	NA
B23-12194	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12195	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12196	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12197	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12198	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12199	Inner Shelf	OPC/SCCWRP	NA	LACSD	NA	LACSD	NA
B23-12200	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinione	Neonic
B23-12201	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	NA	Weck	NA
B23-12202	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12203	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12204	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12205	Inner Shelf	OPC/SCCWRP	NA	LACSD	NA	LACSD	NA
B23-12206	Inner Shelf	OPC/SCCWRP	NA	LACSD	NA	LACSD	NA
B23-12207	Inner Shelf	OPC/SCCWRP	SCCWRP	LACSD	Weck	LACSD	NA
B23-12208	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12209	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12210	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12211	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12212	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12213	Inner Shelf	OPC/SCCWRP	SCCWRP	Weck	Weck	Weck	NA
B23-12214	Inner Shelf	OPC/SCCWRP	NA	Weck	Weck	Weck	NA
B23-12215	Inner Shelf	OPC/SCCWRP	NA	Weck	Weck	Weck	NA
B23-12216	Inner Shelf	OPC/SCCWRP	NA	Weck	NA	Weck	NA
B23-12507	Inner Shelf	NA	NA	NA	NA	NA	NA
B23-12590	Inner Shelf	NA	NA	NA	NA	NA	NA
B23-12591	Inner Shelf	NA	NA	NA	NA	NA	NA
B23-12750	Inner Shelf	NA	NA	NA	NA	NA	NA
B23-12045	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12046	Marina	OPC/SCCWRP	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12047	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12048	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12049	Marina	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	NA	PHYSIS	PHYSIS
B23-12050	Marina	NA	NA	NA	NA	NA	NA
B23-12051	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12052	Marina	OPC/SCCWRP	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12053	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12054	Marina	NA	NA	NA	NA	NA	NA
B23-12055	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12056	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinione	Neonic
B23-12057	Marina	NA	NA	NA	NA	NA	NA
B23-12058	Marina	OPC/SCCWRP	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12059	Marina	NA	NA	NA	NA	NA	NA
B23-12060	Marina	NA	NA	NA	NA	NA	NA
B23-12061	Marina	OPC/SCCWRP	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12062	Marina	NA	NA	NA	NA	NA	NA
B23-12063	Marina	NA	NA	NA	NA	NA	NA
B23-12064	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12065	Marina	NA	NA	NA	NA	NA	NA
B23-12066	Marina	NA	NA	NA	NA	NA	NA
B23-12067	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12068	Marina	NA	NA	NA	PHYSIS	NA	NA
B23-12069	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12070	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12071	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12072	Marina	NA	NA	NA	NA	NA	NA
B23-12073	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12074	Marina	OPC/SCCWRP	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12075	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12076	Marina	NA	NA	NA	NA	NA	NA
B23-12077	Marina	NA	NA	NA	NA	NA	NA
B23-12078	Marina	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12079	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12080	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12081	Marina	OPC/SCCWRP	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12082	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12083	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12084	Marina	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12085	Marina	NA	NA	NA	PHYSIS	NA	NA
B23-12086	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12087	Marina	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12088	Marina	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinione	Neonic
B23-12811	Marina	NA	NA	NA	NA	NA	NA
B23-12841	Marina	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12217	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12218	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12219	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12220	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12221	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12222	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12223	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12224	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12225	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12226	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12227	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12228	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12229	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12230	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12231	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12232	Mid Shelf	NA	NA	LACSD	NA	LACSD	NA
B23-12233	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12234	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12235	Mid Shelf	NA	NA	LACSD	Weck	LACSD	NA
B23-12236	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12237	Mid Shelf	NA	NA	LACSD	Weck	LACSD	NA
B23-12238	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12239	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12240	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12241	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12242	Mid Shelf	NA	NA	Weck	NA	Weck	NA
B23-12243	Mid Shelf	NA	NA	NA	NA	NA	NA
B23-12244	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12245	Mid Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12246	Mid Shelf	NA	NA	Weck	NA	Weck	NA

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinione	Neonic
B23-12770	Mid Shelf	NA	NA	NA	NA	NA	NA
B23-12247	Outer Shelf	NA	NA	Weck	NA	Weck	NA
B23-12248	Outer Shelf	NA	NA	Weck	CSD	Weck	NA
B23-12249	Outer Shelf	NA	NA	Weck	NA	Weck	NA
B23-12250	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12251	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12252	Outer Shelf	NA	NA	Weck	NA	Weck	NA
B23-12253	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12254	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12255	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12256	Outer Shelf	NA	NA	Weck	NA	Weck	NA
B23-12257	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12258	Outer Shelf	NA	NA	LACSD	LACSD	LACSD	NA
B23-12259	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12260	Outer Shelf	NA	NA	LACSD	LACSD	LACSD	NA
B23-12261	Outer Shelf	NA	NA	LACSD	NA	LACSD	NA
B23-12262	Outer Shelf	NA	NA	LACSD	LACSD	LACSD	NA
B23-12263	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12264	Outer Shelf	NA	NA	LACSD	LACSD	LACSD	NA
B23-12265	Outer Shelf	NA	NA	LACSD	NA	LACSD	NA
B23-12266	Outer Shelf	NA	NA	LACSD	LACSD	LACSD	NA
B23-12267	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12268	Outer Shelf	NA	NA	LACSD	NA	LACSD	NA
B23-12269	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12270	Outer Shelf	NA	NA	LACSD	LACSD	LACSD	NA
B23-12271	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12272	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12273	Outer Shelf	NA	NA	Weck	NA	Weck	NA
B23-12274	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12275	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12276	Outer Shelf	NA	NA	Weck	NA	Weck	NA
B23-12277	Outer Shelf	NA	NA	Weck	Weck	Weck	NA

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinione	Neonic
B23-12278	Outer Shelf	NA	NA	Weck	NA	Weck	NA
B23-12279	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12280	Outer Shelf	NA	NA	Weck	NA	Weck	NA
B23-12281	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12282	Outer Shelf	NA	NA	Weck	Weck	Weck	NA
B23-12283	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12284	Outer Shelf	NA	NA	NA	NA	NA	NA
B23-12089	Port	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	NA	PHYSIS	PHYSIS
B23-12090	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12091	Port	NA	NA	NA	NA	NA	NA
B23-12092	Port	NA	NA	NA	NA	NA	NA
B23-12093	Port	NA	NA	NA	NA	NA	NA
B23-12094	Port	NA	NA	NA	NA	NA	NA
B23-12095	Port	NA	NA	NA	NA	NA	NA
B23-12096	Port	NA	NA	NA	NA	NA	NA
B23-12097	Port	NA	NA	NA	NA	NA	NA
B23-12098	Port	NA	NA	NA	NA	NA	NA
B23-12099	Port	NA	NA	NA	NA	NA	NA
B23-12100	Port	NA	NA	NA	NA	NA	NA
B23-12101	Port	NA	NA	NA	NA	NA	NA
B23-12102	Port	NA	NA	NA	NA	NA	NA
B23-12103	Port	NA	NA	NA	NA	NA	NA
B23-12104	Port	NA	NA	NA	NA	NA	NA
B23-12105	Port	NA	NA	NA	NA	NA	NA
B23-12106	Port	NA	NA	NA	NA	NA	NA
B23-12107	Port	NA	NA	NA	NA	NA	NA
B23-12108	Port	NA	NA	NA	NA	NA	NA
B23-12109	Port	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12110	Port	NA	NA	NA	NA	NA	NA
B23-12111	Port	NA	NA	NA	NA	NA	NA
B23-12112	Port	NA	NA	NA	NA	NA	NA
B23-12113	Port	NA	NA	NA	NA	NA	NA

Station ID	Stratum	Microplastics	Microplastics Field Blank	PFAS	PFAS Field Blank	6PPD-quinione	Neonic
B23-12114	Port	NA	NA	NA	NA	NA	NA
B23-12115	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12116	Port	NA	NA	NA	NA	NA	NA
B23-12117	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12118	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12119	Port	OPC/SCCWRP	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12120	Port	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12121	Port	NA	NA	NA	NA	NA	NA
B23-12122	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12123	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12124	Port	OPC/SCCWRP	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12125	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12126	Port	OPC/SCCWRP	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12127	Port	OPC/SCCWRP	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12128	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12129	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12130	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12131	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12132	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12133	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12134	Port	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	NA	PHYSIS	PHYSIS
B23-12135	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12136	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12137	Port	NA	NA	NA	PHYSIS	NA	NA
B23-12138	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12139	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12140	Port	OPC/SCCWRP	OPC/SCCWRP	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12141	Port	NA	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12142	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS
B23-12143	Port	OPC/SCCWRP	NA	PHYSIS	PHYSIS	PHYSIS	PHYSIS
B23-12144	Port	NA	NA	NA	NA	NA	NA
B23-12145	Port	NA	NA	PHYSIS	NA	PHYSIS	PHYSIS

Table C4. Fish Tissue Laboratory Assignments

Analytes	Agency	Bight '23 Tissue Chemistry
Legacy	CLA-EMD	70
Legacy	CSD	39
Legacy	LACSD	30
Legacy	OC SAN	60
CECs	PHYSIS	190

APPENDIX D

Bight '23 Uncommitted Work Elements

Uncommitted effort:

Uncommitted Field Effort:

1. Unassigned Trawls- \$50,000 per site
2. Unassigned Shellfish Bioaccumulation Sample Collection- \$1000 per site

Uncommitted Laboratory Effort:

1. Unassigned Toxicity analysis - \$1000 per sample
2. Additional CEC analytical effort - \$300 per sample
3. Unassigned infauna taxonomy- \$1500 per sample
4. Unassigned Shellfish Bioaccumulation Processing- \$1000 per composite
5. Unassigned Shellfish Bioaccumulation contaminants- \$5000 per composite