

Project Scope of Work

1. Total Maximum Daily Loads (TMDL) Support for Harbor Toxics TMDL: Provide technical support, including hydrodynamic/water quality/sediment transport and bioaccumulation modeling related to the Dominguez Channel and Greater Los Angeles and Long Beach Harbors TMDL. Assist in the design of special studies, sediment management actions, and selection of Best Management Practices (BMPs). Provide technical presentations and strategic support for meetings with regulatory agencies and other entities. Assist in the development of assessment and compliance strategies related to both the direct effects and indirect effects portion of the TMDL, including application of Statewide Sediment Quality Objectives. Assist in preparing for the Toxics TMDL reconsideration scheduled for 2018.
2. TMDL Support for Inner Cabrillo Beach Bacteria TMDL: Design and implement microbial source tracking and other investigative measures. Recommend and evaluate structural and non-structural BMPs. Collaboratively design and implement a pathway toward a Natural Source Exclusion, including a Quantitative Microbial Risk Assessment, involving fate and transport modeling. Provide technical support and presentations for meetings with regulators. Prepare periodic reports that summarize technical studies and recommend future measures and investigations. Evaluate BMPs and prepare reports as required under the Time Schedule Order for compliance point CB01 (LARWQCB Order NO. R4-2014-0023).
3. Source Control Measures: Assist in activities related to the implementation of Water Resources Action Plan control measures and other measures to control potential sources of pollution associated with land use (LU), on-water discharges (OW), sediment quality, and the watershed. Provide assistance with the WRAP control measures LU1 and LU3, LU5, and OW2, and control measures related to the Vessel General Permit (VGP), Small VGP, Clean Marina Program, or other source control measures (to be determined).
4. Stormwater Support: Provide assistance in reviewing and complying with National Pollutant Discharge Elimination System (NPDES) regulatory permits, permit development, and permit changes. Firms will be expected to mobilize rapidly to sample multiple locations throughout the Port of Los Angeles during a storm event from both land and water.
5. Water Quality Studies: Provide technical design and implementation, including sample collection, of studies to characterize water quality in Los Angeles Harbor related to Harbor Department development activities, or Harbor Department-directed special studies. Studies may include: toxicity testing and chemical analyses, the placement/retrieval of oceanographic monitoring equipment (e.g., current meters) and deployment of equipment for high resolution monitoring (e.g., solid phase micro extraction (SPME) devices).
6. Dredge Program Support: Provide technical support including preparation of, obtaining agency approval for, and carrying out dredged material Sampling and Analysis Plans in accordance with appropriate federal guidance manuals. All sediment sampling and analysis

to support the Port's dredging program must conform to guidance provided in the United State Environmental Protection Agency (USEPA)/United States Army Corps of Engineers (USACE) 1991 (or subsequent) publication "Ecological Evaluation of Proposed Discharged or Dredged Materials into Ocean Waters" and "Inland Testing Manual", as amended by USEPA guidance and Region IX practice. Firms should also demonstrate experience in water quality monitoring services in support of dredging and dredged material placement activities.

7. Sediment Quality Studies: Provide technical design and implementation, including sample collection and analysis, of studies to characterize sediment quality in Los Angeles Harbor as required for regulatory compliance, Harbor Department development activities, or Harbor Department-directed special studies. This may include the collection and analysis of sediment and pore water samples and conducting sediment evaluation based on the multiple lines of evidence approach outlined in the Statewide Sediment Quality Objectives (sediment chemistry, sediment toxicity, and benthic invertebrate community condition). Firms should demonstrate experience in sediment evaluation, including use of relevant equipment.
8. Ballast Water and Invasive Species Support: Provide technical support related to the control of non-native species in ballast water and in other potential routes of introduction (e.g., hull fouling). Assist in review of regulatory changes. Provide support for potential treatment and control methods.
9. Caulerpa/Eelgrass Surveys: Provide qualified/certified personnel that can perform *Caulerpa* surveys in accordance with the *Caulerpa* Control Protocol and eelgrass surveys and mitigation activities in accordance with the California Eelgrass Mitigation Policy, or any policies that supersede these.
10. Other Biological Surveys: Provide qualified biological personnel that can perform surveys of aquatic and terrestrial plants and wildlife, including threatened, endangered and special status species, as required for regulatory compliance, Harbor Department development activities, or Harbor Department-directed special studies.
11. Biological Mitigation: Provide technical support related to: a) the establishment of biological mitigation sites and b) the ongoing monitoring and reporting requirements of existing banking agreements in accordance with the USACE and USEPA 2008 Final Compensatory Mitigation Rule.
12. Port Electronic Database System (EDS) Support: Consultant should have capabilities to work with the existing EDS system, load/merge new databases and files, and make minor enhancements to database functionality, including user searches and graphic displays. The platform for EDS is a framework extended from the QCODO open source framework for PHP (Copyright © 2001 - 2006, QuasIdea Development, LLC, used under the terms of The MIT License.)