

Scope of Work Items – Anchor QEA, LLC

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 compliance strategies and produce technical memos and white papers. Assist in formulating comments on potential regulatory changes.
2. Source Control Measures: Provide assistance in activities related to the implementation of Water Resources Action Plan control measures and other measures to improve water and sediment quality.
3. 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).
4. 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.
5. 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). Ability to evaluate sediment, including use of relevant equipment.

6. Biological Support Services: Provide qualified/certified personnel that can perform surveys of *Caulerpa* and eelgrass in accordance with appropriate policy, and 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. 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
7. Biological Mitigation: Provide technical support related to the ongoing monitoring and reporting requirements of existing banking agreements in accordance with the USACE and USEPA 2008 Final Compensatory Mitigation Rule. Provide technical expertise related to meeting future biological mitigation requirements associated with loss of Waters of the U.S., special aquatic habitat, or protected species.
8. Data Management Support: Provide capabilities to work with geographical enabled and static data management systems to assist with the collation, organization, analysis, and geographical query and presentation of compliance requirements, water, sediment, and biological data.
9. Other related Services: Provide other technical services that may be required on an as-needed basis to assist Environmental Management staff to complete projects associated with water quality, sediment quality and biological resources.

Scope of Work Items – Merkel & Associates, Inc.

1. Biological Support Services: Provide qualified/certified personnel that can perform surveys of *Caulerpa* and eelgrass in accordance with appropriate policy, and 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. 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
2. Biological Mitigation: Provide technical support related to the ongoing monitoring and reporting requirements of existing banking agreements in accordance with the USACE and USEPA 2008 Final Compensatory Mitigation Rule. Provide technical expertise related to meeting future biological mitigation requirements associated with loss of Waters of the U.S., special aquatic habitat, or protected species.
3. Data Management Support: Provide capabilities to work with geographical enabled and static data management systems to assist with the collation, organization, analysis, and geographical query and presentation of compliance requirements, water, sediment, and biological data.
4. Other related Services: Provide other technical services that may be required on an as-needed basis to assist Environmental Management staff to complete projects associated with biological resources.

Scope of Work Items – Michael Baker International, Inc.

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 compliance strategies and produce technical memos and white papers. Assist in formulating comments on potential regulatory changes.
2. TMDL Support for Inner Cabrillo Beach Bacteria TMDL: Provide technical support, including design and implementation of microbial source tracking and other investigative measures. Analysis of samples using state of the art laboratory methods. 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 to regulatory agencies as required.
3. Source Control Measures: Provide assistance in activities related to the implementation of Water Resources Action Plan control measures and other measures to improve water and sediment quality.
4. Stormwater Support: Provide assistance in reviewing and complying with National Pollutant Discharge Elimination System (NPDES) regulatory permits, permit development, and permit changes. Provide ability to mobilize rapidly to sample multiple locations throughout the Port of Los Angeles during a storm event from both land and water. Provide support in the subject of Best Management Practices, pollution control technology and Low Impact Development effectiveness. Provide technical studies, recommendations, and developments and trends regarding non-point source pollutants.
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 States 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). Ability to evaluate sediment, including use of relevant equipment.
8. Biological Support Services: Provide qualified/certified personnel that can perform surveys of *Caulerpa* and eelgrass in accordance with appropriate policy, and 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. 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. Biological Mitigation: Provide technical support related to the ongoing monitoring and reporting requirements of existing banking agreements in accordance with the USACE and USEPA 2008 Final Compensatory Mitigation Rule. Provide technical expertise related to meeting future biological mitigation requirements associated with loss of Waters of the U.S., special aquatic habitat, or protected species.
10. Data Management Support: Provide capabilities to work with geographical enabled and static data management systems to assist with the collation, organization, analysis, and geographical query and presentation of compliance requirements, water, sediment, and biological data.
11. Other related Services: Provide other technical services that may be required on an as-needed basis to assist Environmental Management staff to complete projects associated with water quality, sediment quality and biological resources.

Scope of Work Items – Pi Environmental, LLC

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 compliance strategies and produce technical memos and white papers. Assist in formulating comments on potential regulatory changes.
2. TMDL Support for Inner Cabrillo Beach Bacteria TMDL: Provide technical support, including design and implementation of microbial source tracking and other investigative measures. Analysis of samples using state of the art laboratory methods. 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 to regulatory agencies as required.
3. Source Control Measures: Provide assistance in activities related to the implementation of Water Resources Action Plan control measures and other measures to improve water and sediment quality.
4. Stormwater Support: Provide assistance in reviewing and complying with National Pollutant Discharge Elimination System (NPDES) regulatory permits, permit development, and permit changes. Provide ability to mobilize rapidly to sample multiple locations throughout the Port of Los Angeles during a storm event from both land and water. Provide support in the subject of Best Management Practices, pollution control technology and Low Impact Development effectiveness. Provide technical studies, recommendations, and developments and trends regarding non-point source pollutants.
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). Ability to evaluate sediment, including use of relevant equipment.
8. Biological Support Services: Provide qualified/certified personnel that can perform surveys of *Caulerpa* and eelgrass in accordance with appropriate policy, and 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. 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. Data Management Support: Provide capabilities to work with geographical enabled and static data management systems to assist with the collation, organization, analysis, and geographical query and presentation of compliance requirements, water, sediment, and biological data.
10. Other related Services: Provide other technical services that may be required on an as-needed basis to assist Environmental Management staff to complete projects associated with water quality, sediment quality and biological studies.

Scope of Work Items – Weston Solutions, Inc.

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 compliance strategies and produce technical memos and white papers. Assist in formulating comments on potential regulatory changes.
2. TMDL Support for Inner Cabrillo Beach Bacteria TMDL: Provide technical support, including design and implementation of microbial source tracking and other investigative measures. Analysis of samples using state of the art laboratory methods. 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 to regulatory agencies as required.
3. Source Control Measures: Provide assistance in activities related to the implementation of Water Resources Action Plan control measures and other measures to improve water and sediment quality.
4. Stormwater Support: Provide assistance in reviewing and complying with National Pollutant Discharge Elimination System (NPDES) regulatory permits, permit development, and permit changes. Provide ability to mobilize rapidly to sample multiple locations throughout the Port of Los Angeles during a storm event from both land and water. Provide support in the subject of Best Management Practices, pollution control technology and Low Impact Development effectiveness. Provide technical studies, recommendations, and developments and trends regarding non-point source pollutants.
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). Ability to evaluate sediment, including use of relevant equipment.
8. Biological Support Services: Provide qualified/certified personnel that can perform surveys of *Caulerpa* and eelgrass in accordance with appropriate policy, and 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. 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. Biological Mitigation: Provide technical support related to the ongoing monitoring and reporting requirements of existing banking agreements in accordance with the USACE and USEPA 2008 Final Compensatory Mitigation Rule. Provide technical expertise related to meeting future biological mitigation requirements associated with loss of Waters of the U.S., special aquatic habitat, or protected species.
10. Data Management Support: Provide capabilities to work with geographical enabled and static data management systems to assist with the collation, organization, analysis, and geographical query and presentation of compliance requirements, water, sediment, and biological data.
11. Other related Services: Provide other technical services that may be required on an as-needed basis to assist Environmental Management staff to complete projects associated with water quality, sediment quality and biological resources.

Scope of Work Items – Wood Environment & Infrastructure Solutions, Inc.

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 compliance strategies and produce technical memos and white papers. Assist in formulating comments on potential regulatory changes.
2. TMDL Support for Inner Cabrillo Beach Bacteria TMDL: Provide technical support, including design and implementation of microbial source tracking and other investigative measures. Analysis of samples using state of the art laboratory methods. 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 to regulatory agencies as required.
3. Source Control Measures: Provide assistance in activities related to the implementation of Water Resources Action Plan control measures and other measures to improve water and sediment quality.
4. Stormwater Support: Provide assistance in reviewing and complying with National Pollutant Discharge Elimination System (NPDES) regulatory permits, permit development, and permit changes. Provide ability to mobilize rapidly to sample multiple locations throughout the Port of Los Angeles during a storm event from both land and water. Provide support in the subject of Best Management Practices, pollution control technology and Low Impact Development effectiveness. Provide technical studies, recommendations, and developments and trends regarding non-point source pollutants.
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 States 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). Ability to evaluate sediment, including use of relevant equipment.
8. Biological Support Services: Provide qualified/certified personnel that can perform surveys of *Caulerpa* and eelgrass in accordance with appropriate policy, and 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. 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. Biological Mitigation: Provide technical support related to the ongoing monitoring and reporting requirements of existing banking agreements in accordance with the USACE and USEPA 2008 Final Compensatory Mitigation Rule. Provide technical expertise related to meeting future biological mitigation requirements associated with loss of Waters of the U.S., special aquatic habitat, or protected species.
10. Data Management Support: Provide capabilities to work with geographical enabled and static data management systems to assist with the collation, organization, analysis, and geographical query and presentation of compliance requirements, water, sediment, and biological data.
11. Other related Services: Provide other technical services that may be required on an as-needed basis to assist Environmental Management staff to complete projects associated with water quality, sediment quality and biological resources.