

## Project Scope of Work

The CAAP is an aggressive, comprehensive strategic plan to reduce port-related emissions and health risk. The CAAP addresses the five main categories of port-related emissions sources. The 2010 CAAP Update includes new and enhanced strategies beyond the original CAAP, and Bay Wide Emissions Reduction and Health Risk Reduction Standards to be achieved in future milestone years. Special studies related to CAAP strategies will be required to assess technical, economic, and operational feasibility; and prepare detailed implementation and program performance plans. The CAAP is a “living document” and the next iteration of the CAAP, currently under development, will continue to assess performance of existing measures to determine effectiveness and enhancement opportunities, and to potentially introduce new measures.

The Harbor Department requests consultant services to conduct various air quality services to support and implement the CAAP and other air quality improvement programs. These services include, but are not limited to, the development and updating of emission inventories, mobile sources testing of marine and landside equipment associated with Port operations, health risk assessments for mobile sources associated with Port operations, evaluation of emission reduction technologies, preparation of reports, and other related technical air quality services.

Consultants will be expected to:

1. Support and assist in the implementation of the strategies in the CAAP, including special studies for the five main source categories identified in the CAAP.

The CAAP is an aggressive, comprehensive strategic plan to reduce emissions and health risk from maritime equipment operating at the Port. The CAAP addresses the five main categories of maritime emissions sources, as well as measures relating to energy usage and efficiency. These five sources include Ocean-Going Vessels, On-Road Heavy-Duty Vehicles, Cargo Handling Equipment, Harbor Craft, and Rail Locomotives. The 2010 CAAP Update included new and enhanced measures beyond the original CAAP, and Bay Wide Emissions Reduction and Health Risk Reduction Standards to be achieved in future milestone years. Special studies related to CAAP measures will be required to assess technical, economic, and operational feasibility, and prepare detailed implementation and program performance plans. This task may also include air dispersion modeling and analysis. As the CAAP is a “living document”, the next iteration of the CAAP, currently under development, will continue to assess performance of existing measures to determine effectiveness and enhancement opportunities, and to potentially introduce new measures. Additionally, assistance may be required to assist the Harbor Department in reaching out to the local community, preparing presentations, organizing meetings, and collecting public comments.

2. Prepare Annual Updates to the Port-wide Air Emissions Inventory and Conduct Special Studies.

The Harbor Department has performed comprehensive air quality emissions inventories for mobile sources for calendar year 2001 and annually from 2005 through 2014 (2015 in progress). The Harbor Department is committed to update the emissions inventory on an annual basis to determine the changes compared to previous years. This inventory is designed to be used as a metric or method to evaluate the effectiveness of the proposed emission reduction measures identified in the CAAP. Tasks associated with the emissions inventory include data collection, tenant surveys, emissions calculations, preparing reports, graphs, presentations, and working closely with State and Federal regulatory agencies, community groups, as well as the Ports of Los Angeles and Long Beach. This task may also involve assistance with updating and maintaining the Harbor Department's Environmental database. Finally, additional research and/or special studies may be required to refine the emissions inventory methodologies.

3. Assistance in the identification, evaluation, and demonstration/piloting of new and emerging emission reduction technologies/strategies applicable to the port-related industries.

The Harbor Department pursues the identification, evaluation and demonstration and/or piloting of new and emerging emission reduction technologies and strategies applicable to port-related industries and operations. Specifically, the Harbor Department is focusing on the development and eventual deployment of near-zero and zero emission vehicles and equipment, primarily, though not exclusively, through the Department's Technology Advancement Program (TAP). The TAP was established when the CAAP was adopted. The goal of the TAP is to accelerate the verification or commercial availability of new, clean technologies, through evaluation and demonstration, to move towards an emissions-free port. The TAP goals include encouragement of technology innovation and the demonstration of the effectiveness of new technologies. Support is needed in the further development and implementation of the TAP, proposal screening and evaluation, vendor interaction, demonstration plan development and management, Request for Proposal preparation, performance and progress reviews, and reporting to the Board of Harbor Commissioners. Categories of focus include, but are not limited to, at-berth and transiting emission reduction technologies for ocean-going vessels; alternative fuel, hybrid and zero emission vehicle demonstrations/certifications; fueling infrastructure development and installation, and clean switcher and line haul locomotive demonstrations. Additional assistance may be required for source testing.

4. Support for greenhouse gas (GHG) programs, including leadership in local, national, and international GHG and Climate Change initiatives.

The Harbor Department is a leader in local, national and international greenhouse gas and climate change programs, and is committed to supporting local and regional climate and sustainability goals. Activities have included preparation of GHG inventories at multiple scales, national and international best practices collaboration and international partnership in development of a carbon footprint modeling resource guide. In addition, several CAAP measures have included GHG provisions and benefits. Assistance may be requested to implement or expand initiatives, including, but not limited to, support for International Association of Ports and Harbors World Ports Climate Initiative, including web-based GHG calculators; support of the City of Los Angeles Mayor's Sustainable City pLAN; development of GHG inventories; and design and implementation of demonstration programs.

5. Technical expertise and review of air quality sections and health risk assessments of CEQA/NEPA documents.

As a lead agency under the California Environmental Quality Act (CEQA), the Harbor Department prepares Environmental Impact Reports (EIRs) and Environmental Impact Statements (EISs), as per the National Environmental Policy Act (NEPA), when there is Federal jurisdiction in the proposed project. The EIR/EIS document is often prepared by a consulting firm under contract with the Harbor Department. Harbor Department CEQA documents currently include extensive air quality and health risk analyses. Work may include support of CEQA and joint CEQA/NEPA efforts to provide technical comments and/or background studies and assistance with the analyses, review of the appropriate inventory and forecasting methods, significance thresholds, appropriate feasible mitigations, and correct incorporation of CAAP and regulatory measures. Current analyses include criteria pollutant, dispersion modeling, health risk assessments, particulate matter-related morbidity and mortality assessments, and greenhouse gas analyses. Work may include attending meetings and providing technical review in constrained review schedules.

6. Support and tracking of existing and proposed local, state, and federal regulations/legislation, and an analysis of the potential impact on the Harbor Department.

New local, state, and federal air quality regulations/legislation, and amendments to existing regulations/legislation, are being proposed on a regular basis. Assistance is needed in tracking and analyzing the impacts of these on the Harbor Department and its tenants. This may include the preparation of technical memoranda, attendance at regulatory workshops, and

a regular update to Harbor Department staff.

7. Assistance in grant writing and tracking for air quality-focused grant opportunities and awards.

The Harbor Department aggressively pursues grants provided by state and federal agencies. Through its Environmental Management Division, the Harbor Department has secured over \$150 million in grant funding for various modernization and technology programs for heavy-duty trucks, harbor craft, ocean-going vessels, locomotives and cargo handling equipment. Assistance may be required in drafting grant applications, as well as monitoring and reporting should grants be awarded.

8. Permit compliance support for RECLAIM and other stationary and mobile sources.

The Harbor Department must comply with permit requirements under its RECLAIM and other stationary source South Coast Air Quality Management District rules and regulations as well as California Air Resources Board rules for On-Road and Off-Road vehicles. Assistance may be required in permit application preparation and modification, compliance reporting preparation and review, regulatory rule interpretation and attendance at regulatory meetings.

9. Assistance in information sharing and outreach to national and international ports.

The Harbor Department collaborates on environmental initiatives with other organizations such as at American Association of Port Authorities, the International Association of Ports and Harbors, the World Ports Climate Initiative, and the Pacific Ports Clean Air Collaborative. In addition, the Harbor Department exchanges information with individual ports around the world through teleconferences and in-person meetings. Assistance may be required to provide technical support for various national and international outreach efforts. Work may include, but is not limited to, strategy support, technical analysis, and facilitation with Port delegations.

10. Assistance in preparing technical papers and presentations for conferences.

Harbor Department staff attends and makes presentations at various conferences. Assistance may be required to support staff by assisting in preparing presentations, abstracts and technical papers, including required research and analysis.

11. Any additional services requested by the Director of Environmental Management.