



GATEWAY CITIES
COUNCIL OF GOVERNMENTS

**Development of the
Air Quality Action Plan
For the I-710 Corridor**

PRELIMINARY REPORT

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Statement from the Gateway Cities Council of Governments

This document represents statements, opinions and recommendations of various stakeholders and consultants whose input was sought by the Gateway Cities Council of Governments.

These positions may not necessarily represent the official position of the Board of Directors of the Gateway Cities Council of Governments.

October 2007

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Executive Summary

I-710 Corridor Expansion Project

Plans to expand the capacity of the Interstate 710 Freeway (I-710) from the ports (Ocean Blvd.) to SR-60 freeway began in 2001. A consortium of agencies made up of the Los Angeles County Metropolitan Transportation Authority (LACMTA), Caltrans, the Southern California Association of Governments (SCAG) and the Gateway Cities Council of Governments (GCCOG) embarked on a study to better understand the options and costs associated with widening the freeway.

Evolution of the Air Quality Action Plan

As part of the study, the agencies obtained feedback from the communities in the I-710 corridor and determined that the main concerns about expanding the freeway were around issues of air quality in the region. Community members were concerned that the expansion would have negative impacts on air quality due to the likely increased use of the freeway by buses, trucks and other goods movement vehicles. In order to address these concerns, the GCCOG constructed a system for stakeholder involvement and encouraged input into the process from community members (known as Tier 1 and Tier 2 committee members), environmental groups and elected officials. The GCCOG was asked by stakeholders in the 710 Corridor planning process to prepare an Air Quality Action Plan (AQAP) to address the air quality concerns associated with expanding the freeway.

Purpose of this Document

In October 2006, the GCCOG retained the services of Gladstein, Neandross & Associates to assist with the development of the first phase of an AQAP. This document is the first step in preparing that document. Chapters I and II of this report give a background explanation of the I-710 Corridor expansion project, as well as a description of the communities' involvement with the project. Chapter III provides a summary of meetings with the GCCOG and stakeholders, including elected officials, community members and the environmental community. Chapter IV is a review of air quality improvement measures that have been proposed and/or approved since November 2004, as well as a review of the status of recommendations presented in the Tier 2 report. In Chapter V, this report outlines the recommended content of the AQAP, proposes the steps that need to be taken to launch the document, and projects some possible costs for the preparation of the plan. In addition, in response to the interests of key environmental stakeholders, Chapter V presents a list of their recommendations for early actions that I-710 stakeholders can take to improve air quality while the full AQAP is being developed.

Recommendations

It is the recommendation of the GCCOG that the Project Committee approve the proposed scope of work for the development of the AQAP and permit the staff to pursue funding for the project from other agencies. GCCOG also recommends that it work with air quality agencies to establish additional air quality monitoring stations in the I-710 Corridor as soon as possible, as well as a protocol for regular public reports on air

pollution. The AQAP will include several components, including the development of a list of near term air quality measures that would have impact in the 710 Corridor communities whose effectiveness could be enhanced through local action and regional cooperation. In addition, the GCCOG recommends that the AQAP include a health risk assessment that projects the benefits of full implementation of all of the air quality measures discussed herein. Finally, GCCOG recommends that the Project Committee take action on the early action items that are proposed by representatives of the environmental community and request that GCCOG work with local communities to implement the selected recommendations.

I. Introduction

In October 2006, the Gateway Cities Council of Governments (GCCOG) retained the services of Gladstein, Neandross & Associates to assist with the development of the first phase of an Air Quality Action Plan (AQAP). This plan emerged from a process which began several years earlier to develop a proposal to expand the capacity of the Long Beach Freeway, also known as Interstate 710 (I-710) from the ports (Ocean Blvd.) to SR-60 freeway. That process resulted in the development of a “Locally Preferred Strategy” (LPS) based on the input and recommendations of community groups along the freeway and a regional community advisory committee.

The two most pressing issues of community concern were the threat of property condemnation and air quality. Once the LPS was developed, and it became clear that modifications to the freeway could take place while leaving residences and businesses intact, the number one remaining issue was air quality and health. As understanding of the deleterious health impacts of diesel particulate matter has grown over the past decade, communities have become increasingly concerned about their exposure to the exhaust from ships, buses, trains, construction equipment and trucks. Recent studies by the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB) have documented the hazards of living near transportation corridors, particularly those that are heavily traveled by diesel trucks. This and other information has raised issues in communities regarding proposals to expand the capacity of major transportation and goods movement corridors.

The Gateway Cities Council of Governments was asked by stakeholders in the 710 Corridor planning process to prepare an Air Quality Action Plan (AQAP) to address the concerns outlined above. This document is the first step in preparing the I-710 Corridor AQAP. Although not the AQAP, this report outlines the content of the AQAP, proposes the steps that need to be taken to launch the document, and projects some possible costs for the preparation of the plan. This report will review the status of the measures recommended by community representatives in the I-710 Corridor planning process, as well as many other air quality improvement measures that have been proposed and/or approved since the approval of the LPS in November 2004. In addition, in response to the interests of key environmental stakeholders, this report presents a list of their recommendations for early actions that I-710 stakeholders can take to improve air quality while the full AQAP is being developed.

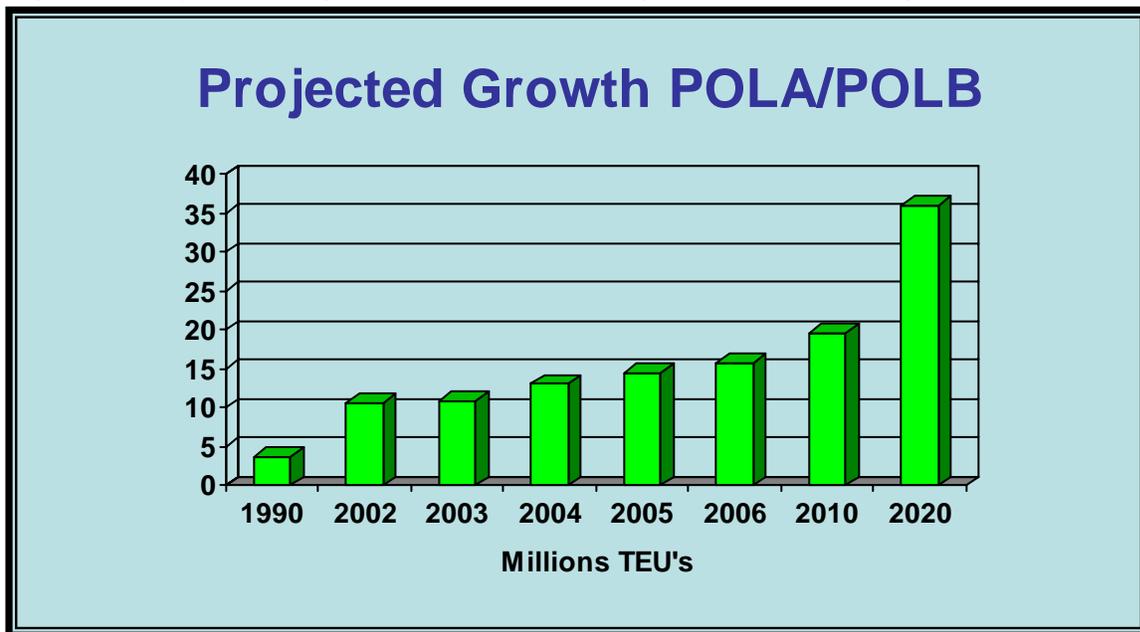
A. Background on the 710 Corridor

Interstate 710 (I-710) runs almost directly north south in between the City of Long Beach and Alhambra, just east of El Sereno and just north of I-10. I-710 is the primary truck route for goods movement serving San Pedro Bay Ports (SPBPs) in general and the Port of Long Beach in particular. It is one of the most heavily traveled freeways in Southern California, and one of the primary transportation corridors for the movement of cargo in the State of California.

Various segments of the I-710 Freeway were built over a twenty-one year period, in between 1954 and 1975. Since that time, however, the only significant addition to the freeway has been the interchange with the Century Freeway (I-105), which was completed in 1993.

Since the completion of the I-710, the San Pedro Bay Ports of Long Beach and Los Angeles have grown to become the largest container ports in the United States. Together, the two separately administered ports are the 5th busiest in the world. In 2006 the ports processed 15,760,218 TEU (Twenty-foot Equivalent Units), which is approximately 8.756 million containers. Together, the San Pedro Bay Ports are estimated to process 40 percent of the containerized trade in to the United States, with an economic value of well over \$300 billion. By the year 2020, the number of containers processed by the San Pedro Bay Ports is projected to more than double today's figures.

Figure 1: Projected Cargo Growth, Ports of Long Beach and Los Angeles



The two ports are the primary source of trucks on the I-710 Freeway. The Port of Long Beach which covers 3,200 acres in southwestern Long Beach, processed 7,290,365 Twenty-Foot Equivalent Units (TEU) in 2006. It is second only to the Port of Los Angeles in container traffic, which covers 4,200 acres and handled 8,469,853 TEU in 2006. Since the majority of containers measure 40 feet, the estimate for the number of individual containers handled by the San Pedro Bay Ports in 2006 is approximately 8.756 million.¹

As the San Pedro Bay Ports have grown, the number of trucks that carry containers to and from the marine terminals has dramatically increased. About 24.1 percent of the

¹ The rule of thumb is to divide the number of TEU by a factor of 1.8 to estimate the number of containers that have been processed.

container traffic managed by the Ports is handled by on-dock rail, leaving about 6.65 million truck moves annually to and from the ports.² Assuming that trucks visit the marine terminals equally every working day (Monday thru Saturday), the average number of containers moved by trucks is 21,300 every day (except Sunday). Coupled with bulk cargo and other port activity, the result is tens of thousands of truck moves every day, a majority of which end up on the I-710 Corridor.

Exacerbating the air quality impact of port trucking is the fact that the nature of the port drayage economy results in a port trucking fleet that tends to be populated by the oldest and dirtiest in the state's heavy-duty vehicle inventory. Port truckers are paid by the trip and not by the hour. Because of the limited number of trips that a trucker can take in a day, and the pay scale that limits the income that the average trucker can generate, many port truckers can only afford to operate a used truck, often one that is with its third or greater owner. Since most of the major advancements in controlling emissions from diesel engines have occurred over the last ten to fifteen years, the result is that trucks that are older than Model Year (MY) 1994 emit significantly greater pollutants than newer trucks. Truck survey data collected by the San Pedro Bay Ports indicate that the average age of port trucks is slightly older than the state average of MY 1994. Thus, today's port trucks tend to be higher polluters than the average truck on the road.

B. Overview of the I-710 Corridor Process

In March 2001, a consortium of public agencies initiated a study of the 710 Corridor. The purpose of the I-710 Major Corridor Study was to investigate the feasibility of various options for improving the 710 Corridor between Route 60 and the City of Long Beach. Virtually every option was on the table, including widening the freeway, building HOV lanes, creating dedicated truck lanes, elevating a portion of the freeway, rebuilding one or more of the interchanges with other key transportation corridors, modifying exits and entrances, or making modifications to major arterial streets that intersect the I-710. The Study was managed by the Oversight Policy Committee (OPC). The Study was undertaken by the LACMTA, Caltrans, the Southern California Association of Governments and the GCCOG.

The OPC was advised by two bodies. The first is a Technical Advisory Committee (TAC) which consists of staff members from the same agencies represented on the OPC (each of the cities, the county, the two ports, MTA, Caltrans and SCAG) as well as staff from the California Highway Patrol, Federal Highway Administration and South Coast Air Quality Management District. The TAC was formed at the beginning of the I-710 Corridor study process in order to provide policy makers with the appropriate technical support needed to weigh the numerous options and scenarios that they would be evaluating.

The second advisory body to the OPC was the Community Advisory Committees (CAC). The CACs consisted of two kinds of committees, designated "Tier 1" and "Tier

² Parsons, *San Pedro Bay Ports Rail Study Update – Executive Summary*, December 2006, page ES-5.

2". Tier 2 of the CAC was to be a Corridor Level body. It would consist of the chair person from each of the Tier 1 committees, appointments from city councils for those cities that didn't establish a Tier 1 committee, the Chairs of the TAC and the I-710 Enhancement Committee, and no more than 15 members appointed by the OPC to provide representation from the environmental, business, labor, and other communities. The CAC's were formed in 2003 when the I-710 corridor communities made it clear to the OPC that they wanted more input in determining the outcomes of the I-710 study.

What follows is a more detailed timeline outlining the history and major milestones of the I-710 Major Corridor Study. In December 2001, the study produced a Purpose and Need Statement that listed eleven problems/needs of the I-710 Corridor as well as a more detailed problem statement. The document also defined the territory of the I-710 Major Corridor Study Area, which is 18 miles long and encompasses the sphere of influence of the I-710 freeway corridor from the Long Beach area to the southeast portion of Los Angeles City. General boundaries for the study area were defined as:

- State Route 60 (north)
- Lakewood Boulevard (east)
- Ports of Long Beach / Los Angeles (south)
- Wilmington Avenue / Alameda Street (west)

In 2001 the OPC also held workshops to gather public input. This input was used by the engineering consultant to develop a set of project scenarios for addressing the issues of congestion on the I-710 freeway. By the spring of 2002, the consultants had fleshed out these scenarios and developed twelve alternatives to improve traveling conditions in the I-710 Corridor, ranging from service improvements such as increasing the availability of public transit, metering freeway ramps, and using advanced technologies to inform freeway users about congestion to more capital intensive facility improvements such as increasing the number of lanes, creating dedicated truck or HOV lanes, separating auto and truck traffic, and several other options. The OPC was asked to evaluate the twelve alternatives and reduce the number that were being analyzed by the consultants to five by June 2002. After additional meetings, the five alternatives that were selected included:

Alternative A: This is the No Build alternative. It involves no improvements beyond those which were already funded and planned through 2025. These improvements will be included in any of the other alternatives that will be considered by the OPC.

Alternative B: Consists of operational improvements that would use advanced technology to address the movement of goods, vehicles and public transit through the corridor using the existing freeway facilities.

Alternative C: This alternative improves safety through the elimination of bottlenecks for all vehicle types, manages the flow of heavy-duty vehicles by

focusing improvements and widening segments of I-710 as well as major arterial streets which can be used as an alternative to I-710. The estimated costs of this alternative were \$2.2 billion to \$3 billion. Key elements include:

- Add general-purpose lane in each direction to selected segments.
- Some improvements at freeway-to-freeway and local interchanges.
- Truck bypass lanes around freeway-to-freeway interchanges.
- Separate truck ramps at PCH and Washington Blvd. interchanges.
- New interchange at Slauson Ave.
- Four-lane extension of Terminal Island Freeway (SR-47/103) to I-710 north of I-405.
- Capacity enhancements to 10 arterials, including one new lane in each direction.

Alternative D: This alternative focuses on improving safety and increasing freeway capacity by widening of the I-710 and adding HOV lanes. Estimated costs of this alternative were \$2.5 billion to \$3.4 billion. Key elements of Alternative D include:

- Add two general purpose lanes in each direction in some segments, one lane in others.
- Add one carpool/bus lane in each direction in some segments, two lanes in others. In some locations, lanes would be elevated about I-710 median (similar to I-110).
- Major improvements at freeway-to-freeway and local interchanges, including direct carpool connectors at I-405.
- Four-lane viaduct connecting State Route 47 and Alameda.
- Capacity enhancements to four arterials, including one new lane in each direction.
- Preserves possibility of high-speed rail line between downtown Long Beach and downtown Los Angeles.

Alternative E: This alternative separates cars and trucks by constructing a separate roadway for goods movement. Estimated costs for this option were \$2.5 billion to \$3.1 billion. Key elements of Alternative E include:

- Add two exclusive truck lanes in each direction from Willow Street in Long Beach to Whittier Blvd in East Los Angeles. Lanes would be elevated in certain segments.

- Dedicated ingress and egress points for trucks at selected locations.
- Add two exclusive, mostly elevated auto lanes in each direction between Shoemaker Bridge near downtown Long Beach and Willow Street in Long Beach.
- Major improvements to freeway-to-freeway interchanges.
- New interchange at Slauson Avenue.
- Capacity enhancements to five arterials, including one new lane in each direction.

These five alternatives were developed in more detail during the last half of 2002 and the first quarter of 2003. The alternatives were analyzed to determine which of the five embodied the right mix of cost, mobility enhancement, safety improvements, environmental benefits while minimizing the impact on communities (i.e. property condemnation). The findings of the cost-benefit analysis included:

- Alternative A was the lowest cost of the five alternatives singled out by the OPC. It had the advantage of impacting no properties for freeway expansion but it also afford no benefits to the community or the region, such as reduced congestion, increased mobility, or reduced air pollution.
- Alternative B was relatively inexpensive, although not as much as Alternative A. Given the relatively small investment, this alternative had minimal impact on congestion, mobility and air quality. A benefit of this project was its limited impact on property, but it would not significantly alter the status quo either.
- Alternative C involved significant cost, as it included substantial modification to the existing infrastructure. Among the five alternatives, it also was projected to result in the greatest reduction in accidents while at the same time providing a moderate increase in average vehicle speeds. Other distinguishing characteristics of this alternative was that it would impact a significant number of properties and that it provided considerably less additional capacity than alternatives D and E.
- Alternative D would result in the greatest speed increases, but at the highest cost. This alternative also affects a large number of freeway adjacent properties. One of the benefits of this alternative is that it was projected to move the most people and vehicles. One of its projected drawbacks was that the models indicated that Alternative D will not reduce freeway accidents as much as the other alternatives.
- Alternative E, due to the separation of cars and trucks, yields major safety improvements and greater speed increases than the other alternatives. It is also the second most expensive of the alternatives, and will impact a large number of properties.

In April of 2003, a series of public open houses were convened to present the results of the cost-benefit analyses and to get the public's input on the results. The workshops held in the Spring of 2003 revealed that the public was not pleased with the process thus far and was not prepared to recommend a locally preferred strategy for more study. Many community members and organizations expressed concerns about the impact that the I-710 freeway currently has on their communities, and were unwilling to support a project that did not include a strategy for addressing the air quality and public health impacts both of the existing corridor and any modifications to the infrastructure that might be undertaken. The communities were also unhappy with the proposed improvements to the I-710 that would have resulted in acquiring hundreds of homes along the freeway. They demanded a greater role in the process, and sought more information about alternative approaches to addressing the public health impacts of living near the I-710.

The OPC heard these concerns and took unprecedented steps to address them in their May 2003 meeting. The OPCs acted to accept the basic premises that were being expressed by community members regarding the condemnation of property and air quality, the need to develop another alternative to the five that have been studied thus far, and the formalization of a structure for engaging the community in the process. The OPC established guiding principles to govern the remaining process of the 710 Major Corridor Study. These principles included:

1. Minimize Right-of-Way acquisitions with the objective being to preserve existing houses, businesses and open space.
2. Identify and minimize both immediate and cumulative exposure to air toxics and pollution with aggressive advocacy and implementation of diesel emissions reduction programs and use of alternative fuels as well as in project planning and design.
3. Improve safety by considering enhanced truck safety inspection facilities and reduced truck/car conflicts and improved roadway design.
4. Relieve congestion and reduce intrusion of traffic in to communities and neighborhoods by employing a comprehensive regional systems approach that includes adding needed capacity as well as deploying Transportation Systems Management and Transportation Demand Management technologies and strategies (TSM/TDM) to make full use of freeway, roadway, rail and transit systems.
5. Improve public participation in the development and consideration of alternatives and provide technical assistance to facilitate public participation.

The OPC also voted to direct the TAC to create a hybrid alternative that started with Alternative B but which combined appropriate elements from all five alternatives. The hybrid alternative had to be acceptable to each city that would be directly impacted by any modifications to the 710 freeway, and also had to be consistent with the guiding principles outlined above. See Figure 2 for the Hybrid Design Concept.

**Figure 2:
 I-710 Major Corridor Study
 Hybrid Design Concept**

- 10 General Purpose Lanes
- 4-Lane Truckway
- Interchange Improvements
- Direct Truck Ramps

| LEGEND | |
|--------|---|
| | Add One Mixed Flow Lane (Each Direction) |
| | Add Two Mixed Flow Lanes (Each Direction) |
| | Exclusive Truck Facility |
| | Interchange Improvement |
| | New Interchange |
| | Eliminate Interchange |
| | Interchange to be studied to remain open |
| | Truck Ramps |
| | Truck Ingress/Egress |

Preliminary Concepts, Subject to Change



Source: Jerry Wood, Consultant, in association with MMA, Inc. and Nolan Consulting, Inc., April 2004, Updated April, 2006

The final action that the OPC took was to consider the creation of I-710 Community Advisory Committees (CACs). The purpose of the proposal was to improve public input in to the study process by developing a two tiered structure. As previously discussed, Tier 1 of consists of community level committees in each of the the 14 corridor cities and unincorporated areas of Los Angeles County. Established through its city council (or, in the case of unincorporated areas, through the County Supervisor) to focus on local I-710 freeway issues and the current and future impact of the Corridor on their communities.

Tier 2 of the CAC was to be a Corridor Level body. It would consist of the chair person from each of the Tier 1 committees, appointments from city councils for those cities that didn't establish a Tier 1 committee, the Chairs of the TAC and the I-710 Enhancement Committee, and no more that 15 members appointed by the OPC to provide representation from the environmental, business, labor, and other communities. The CAC also had the authority to appoint up to 10 additional members and in fact appointed one of these.

With the assistance of a professional facilitator and a professional engineer, the CACs formed and created a "hybrid" design concept for the freeway by the middle of 2004. The Tier 2 Committee met twelve times between February 2004 and the adoption of the Tier 2 report in August 2004. The findings of this process included an extensive list of recommendations on a variety of issues associated with the proposed project, including health, economic development, safety, noise, congestion, community enhancements, design concepts, environmental justice and process. These recommendations can be found in the report entitled "Major Opportunity/Strategy Recommendations and Conditions", also known less formally as the "Tier 2 Report". The guiding principles of the Tier 2 report included:

- The I-710 is a corridor where considerations go beyond the freeway and infrastructure;
- Health is the overriding consideration;
- Every action should be viewed as an opportunity for repair and improvement of the current situation.

In November 2004, after considering community and technical recommendations, the OPC adopted the "hybrid" design concept developed by the communities and approved it as the "Locally Preferred Strategy" (LPS). The LPS consists of ten mixed flow lanes, four dedicated truck lanes, interchange improvements, arterial improvements, and set the goal of seeking funding for an EIR/EIS. The OPC also requested that the GCCOG return with suggested steps for initiating the development and implementation of a corridor level Air Quality Action Plan (AQAP) and identify and pursue appropriate opportunities to implement those Tier 2 recommendations that prove to exceed the scope of the I-710 transportation improvement project. The OPC also requested that

MTA and GCCOG develop a process and structure for continuing community participation throughout the environmental analysis.

In January 2005, the MTA Board received the Tier 2 Report which was to be accepted and utilized as pre-scoping guidance for the EIR/EIS. The MTA Board also directed staff to develop an EIR/EIS funding plan with funding sources from multiple partners, and identify strategies for achieving near-term improvements to the corridor's air quality prior to the initiation of consultant selection for an EIR/EIS. In June 2006, the MTA Board authorized \$75,000 to be spent on a short-term air quality action plan that addressed near term mitigation of emissions.

C. The Air Quality Action Plan

When the OPC adopted its five guiding principles in May 2003, the second principle was to identify and minimize exposure to air pollution and toxic air contaminants through the implementation of a diesel emission reduction program the I-710 corridor. This principle embodies one of the primary concerns being voiced by the community during the public input process – that existing air quality along the I-710 Corridor was unacceptable and that before any work on “mainline project” could begin steps had to be taken to reduce the freeway's air quality impacts.

During the process that was undertaken by the Tier 2 committee during the writing of that report, committee members developed several conditions for approval of major infrastructure improvements. The very first of these was that “a corridor level action plan to improve air quality” had to be implemented. Tier 2 participants also wanted to ensure that any plan to improve the I-710 freeway included careful analysis of the air quality impacts of those improvements and that a plan was in place before construction began to address the adverse impacts of those improvements on the community.

On November 18, 2004, the OPC voted to adopt the Locally Preferred Strategy to improve the I-710 freeway. In the same meeting, the OPC voted to agree with those parts of the Tier 2 report that said that air quality was the number one public health issue in the I-710 corridor and a first step of the process to address corridor congestion must be the development of the AQAP. It was the intent of the OPC that air quality was a high priority and that the AQAP was a necessary step in the I-710 Corridor planning process.

At this same meeting, the OPC voted unanimously to request that the GCCOG return to the OPC with suggestions for “initiating the development” of the AQAP. These suggestions were to include a discussion of the technical requirements of initiating such a plan, legislative strategies to achieve a local Air Quality Action Plan, the potential funding for the AQAP, the structure which could govern the AQAP, “as well as an approach to holding public agencies with jurisdiction in the Corridor accountable for

progress in meeting air quality and public health objective in the Corridor and Region.”³
This direction is what has led to the report contained herein.

Limited funding to begin the AQAP (\$75,000) was approved by MTA in the summer of 2006 leading to the preparation of this preliminary portion of the AQAP. Although this initial sum would prove inadequate to develop and implement the entire AQAP, it did allow for the initiation of the AQAP process, contained herein.

³ I-710 Oversight Policy Committee Adopted Locally Preferred Strategy, November 18, 2004, Executive Summary, p. 2.

II. Description of the Project

There are three primary purposes for this report. The first is to begin to respond to the directive of the OPC and to meet the objectives as established in the LACMTA Resolution authorizing this project. The second is to provide a scope of work for the next phase of development of the AQAP. The third is to identify specific actions that could be taken in the near-term by stakeholders in the I-710 Corridor project to improve air quality in Corridor communities or which would facilitate the implementation of the AQAP. This last objective is important, particularly given the time that has elapsed since the inception of this effort and the time that will elapse until a complete AQAP can be developed and approved.

This chapter describes the instructions which the GCCOG received from the OPC and LACMTA to begin development of the AQAP, the obstacles which GCCOG faced in trying to address the OPC's guidance, and the efforts which GCCOG has undertaken to initiate the process which will lead to the AQAP. This includes a description of the process the COG employed to create an approach to the AQAP that made progress towards the goals of policy makers and community advisors while creatively working around the constraints faced by metropolitan planning organizations. In addition, this Chapter will also describe the responsibility that GCCOG assumed to address concerns of CAC members that this phase of the AQAP process, although preliminary, demonstrates progress toward the goal of reducing the community's exposure to air pollution and toxic air contaminants.

A. OPC and LACMTA Direction

As outlined in Chapter 1, the authorization for the AQAP was given in November 2004 when the OPC issued its locally preferred strategy for the I-710 Major Corridor Study process. At the meeting, the OPC made the following findings:

The OPC agrees with the Tier 2 Committee that air quality is the number one public health issue in the I-710 Corridor.

The OPC agrees with the Tier 2 Committee that the first step must be the development of an action plan to improve air quality in the Corridor.

*The OPC finds that the development of such a Plan must begin at once.*⁴

In order to provide further clarity on its intentions, the OPC also provided GCCOG with additional instructions regarding the AQAP. The "future direction" given by the OPC to the GCCOG focused on outlining a series of recommendations regarding the implementation of the AQAP. These concepts emerged primarily from the Tier 2 report, but some emerged from the discussions that took place in the OPC meeting. As

⁴ Ibid, p. 9.

recorded in the November 18th report, the OPC wanted the AQAP to focus on the following objectives:

1. *Determine and quantify existing air and health quality setting;*
2. *Determine effectiveness of planned near-term air quality improvements;*
3. *Analyze and determine possible new (or emerging) air quality improvements or strategies, including estimated costs, time-lines and responsibilities;*
4. *Develop conceptual plan to implement and measure air quality improvements for the region; and,*
5. *Work with Regional, State and Federal Agencies responsible for air pollution control and enforcement and industry stakeholders along with local communities to develop consensus for this plan.*⁵

These objectives informed the final action that the OPC took on the AQAP. The members of the committee unanimously approved a motion to request that the Gateway Cities Council of Governments...

*...return with suggested steps for initiating the development and implementation of a corridor level Air Quality Action Plan to include not only technical, but also funding, institutional structure and legislative strategies as well as an approach to holding public agencies with jurisdiction in the Corridor accountable for progress in meeting air quality and public health objectives in the Corridor and region.*⁶

The OPC passed this resolution on November 18, 2004. This unprecedented action is worth noting. The development of an air quality plan had never before been associated with a major transportation project. In addition, the level of community involvement in reaching this conclusion has no parallel in recent history. The significance of these elements of the I-710 Corridor planning process should be recognized.

The resources that fund this report were approved by the LACMTA on June 22, 2006. The language authorizing the funding to advance the AQAP can be found in a motion from LACMTA Board Member Richard Katz. The fourth clause of Katz's amendment to the motion authorizing the commencement of the environmental review process includes the allocation of money GCCOG "to complete the 'short-term air quality plan' that addresses near term mitigation of emissions."⁷

⁵ Ibid.

⁶ Ibid, p. 10.

⁷ See Agenda, Regular Board Meeting, Board of Directors, Los Angeles County Metropolitan Transportation Authority, Thursday, June 22, 2006, p. 9.

Prior to the preparation of this preliminary report on the AQAP, and in response to requests from the I-710 OPC and LACMTA boards, the following documents were prepared which summarized activity in the area of air quality policy:

- Compendium of existing and proposed near-term air quality improvement strategies for the I-710 Corridor, March 2006 (Appendix G).
- Quarterly Update – Updated strategies and estimated schedule of existing and proposed near-term air quality strategies for the I-710 Corridor, September 2006, (Appendix H).

B. Challenges of an AQAP

The objectives established for the AQAP by the OPC in November 2004 were broadly defined and far reaching. The expectations for the AQAP, as laid out by the OPC in its objectives, is a I-710 Corridor-specific Air Quality Management Plan (AQMP), similar to the effort that is produced by the SCAQMD every five years. The AQMP, which is mandated by both Federal and State law, includes many of the same elements that were being sought for the AQAP - an analysis of the health impacts of air pollution in communities on the corridor, an evaluation of the cost-effectiveness of dozens of potential measures which could be used to target emission sources that operate on or near the 710 freeway, a program to expand and improve air quality monitoring in Corridor communities and a strategy to implement these measures which included recommendations on how to compel public agencies to comply with the measures in the AQAP.

First of all, there is no record of an AQAP ever being required. As mentioned above, the direction was completely unique and unprecedented. There are no models or examples upon which GCCOG could base the proposed AQAP. There is no precedent for an AQAP in any of the existing policies, regulations, or statutes governing transportation. No transportation or planning agency has ever been asked to produce a proactive strategy to reduce the existing level of emissions from an in-use right-of-way, let alone offset the emissions that would be added to the inventory by the proposed project.

Second, the Gateway Cities Council of Governments is a sub-region of the Southern California Association of Governments, which is the metropolitan planning organization (MPO) for the greater Los Angeles metropolitan area. As an MPO, the COG can only monitor and recommend, it cannot require. It does not have the authority that is vested in the SCAQMD, the ARB or EPA to develop, implement and enforce air quality regulations, or the resources or power of the California Transportation Commission or the LACMTA to place requirements on transportation projects. Any measure that would be proposed for inclusion in the AQAP by GCCOG would require a third party to implement – the COG has no authority to require, implement or regulate.

This means that, in order to be effective, the AQAP will require the consent and agreement of all of the public agencies that will be included in its pages. Thus, the AQAP can only monitor developments in the air quality arena, provide analysis of the potential impact of air quality improvement measures on the I-710 Corridor communities, report on these activities and establish a “framework” to help organize and focus the activities of its member cities toward a common goal. It is this last function in which the GCCOG can be most effective for the objective of improving air quality.

Finally, as an MPO sub-region, the COG has limited resources, both financial and personnel, to undertake the tasks outlined by the OPC. The COG is set up to support the transportation planning process in the 27 cities of the Gateway region, but it does not have the funds or the expertise to prepare an air quality improvement plan that will apply to as much as half of its membership. This capability is housed in the regional air district (SCAQMD) and in the state’s air agency (ARB). The resources that are provided to these agencies to perform these functions are substantial and are not available to the COG. For comparison, the SCAQMD has an annual planning budget of \$18 million, which it uses exclusively for the development of air quality improvement measures and the development and implementation of the AQMP, the region’s contribution to the State Implementation Plan (SIP) that ARB submits to Washington every five years. In addition, the SCAQMD has a planning staff of 117 who are dedicated year round to addressing precisely the objectives established by the OPC for the AQAP. The GCCOG has no independent source of funds to invest in the development of the AQAP – any funds for this work would have to be provided by other agencies.

Nonetheless, the GCCOG and the I-710 public committees and community committees have an important role to play in addressing air quality and health issues. These could include the following for the final AQAP:

1. Data collection of existing studies and review.
2. Evaluation and analysis of existing studies and programs.
3. Advocacy for adequate funding from all sources for air quality improvement programs.
4. Monitoring existing programs for strategies, progress and effectiveness.
5. Reporting function for elected officials, staff and communities.
6. Suggestions for existing or additional air quality programs (e.g., additional air monitoring stations in the I-710 Corridor)
7. Advocacy for health related issues and programs.
8. Providing testimony and input to other agencies.

9. Working with local communities to implement local air quality improvement strategies and programs.
10. Participating in air quality programs (e.g., GCCOG Truck Fleet Replacement Program) where applicable.

C. Recent Changes in the Policy Environment

As discussed earlier in this report there have been numerous air quality studies and programs that have been developed and/or implemented since the action by the OPC requesting the GCCOG prepare an AQAP for the I-710 Corridor. In fact, goods movement and the transportation corridors which it impacts has become the focus of air quality regulators over the last three years. Because of these developments the approach to preparing this initial phase of the AQAP had to start with recognition of the work that has been done by other agencies, and include at least an initial review of the impact that these measures would have on air quality in I-710 Corridor communities.

The air quality policy environment has changed substantially since the Tier 2 report was developed and the LPS approved. The San Pedro Bay Ports, SCAQMD, CARB and EPA all have proposed, developed and drafted new regulations and emission reduction programs that will contribute to significantly reducing air pollution in the 710 Corridor. Many of these measures directly and indirectly address the recommendations for air quality improvement initiatives in the Tier 2 report. These new developments have materially altered the policy debate from the summer of 2004, when many of the issues discussed in the Tier 2 report on emission reductions were not being as aggressively pursued as they are now. Thus, environmental and community representatives who had been working to reduce exposure to pollution from transportation and goods movement were frustrated by the pace of change.

Thus, the period between the summer of 2004 and the spring of 2007 has been a time of unprecedented progress in the development of policy, programs, regulations and legislation to address the air quality impacts of trucks, cargo handling equipment, locomotives, ships and other pollution sources that heavily impact the I-710 Corridor. Some of the more prominent of these developments are discussed below, in rough chronological order. A far more detailed discussion of the new air quality measures can be found in Chapter 4, including a brief analysis of the potential benefit of these activities on air quality in the 710 Corridor communities.

Goods Movement Action Plan

Upon his ascension to office, Governor Arnold Schwarzenegger has made both environmental quality and improving the efficiency of goods movement priorities for his administration. One of his first official acts was to order the preparation of a Goods Movement Action Plan for California. This effort, spearheaded by the California Air Resources Board and the Business, Housing and Transportation Department, is the first state plan that recognizes both the importance of goods movement to the state's economy and its impact on California's environment. The GMAP lays out specific

actions that California will take to both smooth the flow of cargo in and out of the state, as well as measures that will be implemented in order to reduce the air quality impact of that activity.

Diesel Risk Reduction Program

Since October of 2000, the ARB has been implementing the Diesel Risk Reduction Plan. This Plan has emerged from the designation, in 1998, of diesel exhaust as a human carcinogen and subsequent findings that over 70% of the risk from toxic air contaminants in the South Coast Air Basin comes from diesel exhaust. In recent years the ARB has geared up in its efforts to develop programs to reduce the exposure of Californians to diesel particulates. In part this acceleration of measure development has been a result of the Goods Movement Action Plan, but for the most part the regulations that are being developed by CARB are linked to the Diesel Risk Reduction Program. The most significant of these measures, which include low sulfur fuel requirements on ship board auxiliary power units, emission standard for yard tractors and other off-road cargo handling equipment, and emission requirements for trucks that are calling on the Ports of Los Angeles and Long Beach, have all been promulgated since August 2004. Other measures that will have substantial impact on the 710 Corridor are in the process of being evaluated. These measures are summarized in Chapter IV of this report.

This has also led CARB to prepare an Emission Reduction Plan for Ports and Goods Movement in California. This plan was prepared and updated once in 2005 and 2006. The revised plan includes domestic as well as international goods movement strategies to achieve an 85% reduction in risk from diesel particulate matter (PM). The Phase 1 Action Plan established four specific goals to address the air pollution impacts of goods movement and mitigate localized health risks in affected communities. These goals include:

- reduce emissions to 2001 levels by 2010;
- continue reducing emissions until attainment of applicable standards is achieved;
- reduce diesel-related health risks 85% by 2020; and,
- ensure sufficient localized risk reduction in each affected community.

Port Pollution Task Force

In November of 2005, the SCAQMD held their governing board meeting in the City Council chambers of Long Beach. This was the first time the Governing Board had met near the ports, and the District used the opportunity to announce the creation of a Clean Port Initiative. For the first time, the local air pollution agency is focused on addressing pollution from the activities that result from the operations of the port.

Green Port Policy

The Port of Long Beach adopted the Green Port Policy in January of 2005. This suite of emission reduction and other environmental enhancements had been pursued by the Port for a couple of decades and had been codified two years earlier under the Healthy

Harbor program. The Green Port Policy has six primary program elements, including wildlife, air, water, soils/sediments, sustainability and community engagement. The Port produces an annual Green Port Annual Report which enumerates the activities in which they have engaged to reduce their environmental footprint.

No Net Increase

The Port of Los Angeles initiated the No Net Increase (NNI) project in October of 2001. As noted, however, the program was not completed until June 2005. The goal of this project was to permit the port to grow but keep the total emissions from its activities at 2001 levels. Thus, the name of the policy stems from the objective of not allowing a net increase in emissions from port activity from the base year, in spite of the substantial growth which is anticipated to occur. Although NNI was never implemented, many of the measures that were studied have become the foundation for the Clean Air Action Plan or are being pursued by other regulatory agencies.

Clean Air Action Plan

Along with the Diesel Risk Reduction, perhaps the most far reaching and significant development that has taken place over the last two and a half years has been the approval of the Clean Air Action Plan (CAAP) by the San Pedro Bay Ports. The CAAP is the culmination of several concurrent programs in the ports of Long Beach and Los Angeles. The Port of Los Angeles completed the No Net Increase Task Force work in June 2005, a process whose objective was to provide for growth in port activity while keeping emissions from the port capped at 2001 levels. The Port of Long Beach implemented the Green Port policy, which provided for a raft of specific activities to reduce the environmental footprint of harbor operations there. In the spring of 2006 the two ports began an unprecedented collaboration to develop a joint program of emission reduction strategies that both ports would implement simultaneously. The 11 measures of the CAAP are intended to reduce the emissions of the ports by 50% by 2011.

Proposition 1B

In order to operationalize the objectives enumerated in the Goods Movement Action Plan, the Governor and the Legislature proposed a sweeping set of bond measures for the November 2006 ballot that would fund both transportation infrastructure improvements as well as specific actions to reduce emissions from the operations of ports. These measures, which were passed in to law by the voters, provide billions for these improvements, including \$1 billion for environmental action in ports. Although it is not yet clear how these resources will be distributed, what is certain is the San Pedro Bay Ports should receive significant funding to help implement the emission reduction programs that they have proposed in the CAAP.

New Emission Standards for Locomotives

A major source of pollution within I-710 Corridor communities comes from the operation of intermodal rail facilities near the ports and at the northern end of the I-710 Corridor Study area. Emissions from locomotives had remained fairly steady in recent years, with little prospect for change except through voluntary measures (See the ARB MOU with the railroads). This situation changed dramatically in March 2007 when the EPA

proposed tough new emission standards for locomotives that would essentially bring these huge diesel engines level with the emission standards faced by both on and off road vehicles. Although it will take time to implement, these new standards will eventually have a dramatic and positive impact on the I-710 Corridor communities.

SCAQMD Draft 2007 AQMP

Every three years the SCAQMD is required to update its Air Quality Management Plan (AQMP), the District's strategy to achieve Federal ambient air quality standards in the South Coast Air Basin. In early 2007 the SCAQMD published its most recent draft of the AQMP. In this year's revisions to the region's AQMP, the District contains control measures that are grouped in to three categories: Stationary and Mobile Source control measures proposed by the District, State and Federal control measures proposed by the District and the ARB, and a Regional Transportation Strategy, provided by the Southern California Association of Governments. The 2007 Draft AQMP includes recommendations for control measures to modernize the in-use mobile source fleet, accelerate the retirement of high-emitting vehicles and equipment (so called "gross polluters"), increasing the use of alternative fuels and necessary fueling infrastructure, retrofitting existing equipment with pollution control devices, modernizing stationary facilities, and reformulating or replacing existing products with lower polluting alternatives.

Gateway Cities Truck Fleet Replacement Program

Although it was first implemented in mid-2002, the Gateway Cities Truck Fleet Modernization Program has been a model for similar efforts nationwide. By the Spring of 2007, the Gateway Cities program had replaced over 550 pre-1994 trucks with newer trucks. Gateway Cities just received an additional \$6.3 million from the San Pedro Bay Ports to continue to replace these older trucks, as well as implement a new element to retrofit the newer trucks with verified diesel emission control devices. GCCOG is working closely with the Ports on the development of their Clean Truck Program.

These activities have dramatically altered the air quality policy environment for addressing the environmental impacts of mobile sources in general and goods movement in particular. The effects of these policies will be especially felt in 710 Corridor communities. Their impact is at least as significant as that of the Oversight Policy Committee and the Community Advisory Committee on the I-710 planning process. What has transpired in the 28 months since the approval of the Locally Preferred Strategy is that much of what the CAC had proposed to be included in the AQAP is now being pursued by a number of agencies.

D. Scope of Work

These changes in the policy environment had a substantial affect on the nature of this project. It became clear that, with the advancements that had taken place since August 2004 in addressing the issues of the I-710 Corridor, the GCCOG had to first determine if attitudes regarding the AQAP remained the same. Do the stakeholders that called for the creation of the AQAP in 2004 retain the same hopes, expectations, and demands

from this effort now that it was 2007? Enough time had lapsed since the publication of the Tier 2 Report (August 2004) and the adoption of the Locally Preferred Strategy (November 2004), and enough had happened on issues of importance to the I-710 Corridor communities that this became a legitimate question. Thus, one of the immediate needs for the development of the AQAP was to reengage the people who had authorized its creation. It became a priority of this effort to communicate with the members of the OPC and CAC to see if their vision for the AQAP had at all changed.

Hence, a key objective of this exercise was to communicate with the members of the OPC and CAC, interview them and evaluate their current perspectives on the AQAP. In order to achieve these objectives, the scope of work for this report focused on renewing communications with the members of the Tier 2 Committee to determine if attitudes or ideas had changed since the publication of the Tier 2 report in late 2004. This involved updating the contact list to ensure that all members of the OPC and CAC would be contacted, developing simple outreach materials to explain the reasons why GCCOG would be contacting them, meet with key stakeholders, and solicit their input regarding the strategy in which GCCOG has engaged in order to develop the AQAP. Stakeholders would be informed that their ideas for AQAP structure and measures would be included in a report, and that these measures would eventually be evaluated after this process by GCCOG to write the AQAP.

In addition, the scope of work called for a summary of the CAAP and the measures in it that are projected to have beneficial impact on air quality in the Gateway Cities. These findings would be summarized in this report, but this analysis would not include an attempt to quantify the air quality benefit of the CAAP on I-710 Corridor communities. The report is also to include recommendations for future research that can be conducted to quantify the potential air quality benefit that the CAAP and other air quality programs could bring to the Gateway Cities and the I-710 Corridor communities.

The last element of the report that was required in the original scope of work is a summary of the outreach that was undertaken to reengage stakeholders in the AQAP process, the ideas for emission reduction strategies which were presented by those who were interviewed, and any other input that was provided by stakeholders regarding the AQAP or the process which will be pursued to develop and implement it. In addition, this report includes recommendations for next steps, including a possible outline for a future scope of work and the resources which should be set aside in order to realize those recommendations.

The interviews that took place made it clear that there were a wide range of expectations for this stage of the AQAP development process. Some understood that the AQAP would be a complicated and extensive effort that would take much resources and many years to accomplish. Others had hoped that the initial outlay of resources, which they understood was insufficient to develop the actual AQAP, would still result in some substantial specific activities that could be pursued by I-710 Corridor Communities to begin the process of making their air cleaner.

Although it wasn't the intent of GCCOG to attempt to deliver proposals for AQAP emission reduction measures nor was this exercise included in the original scope of work, the COG wants to be responsive to the CAC. In response to these concerns the Scope of Work was modified for the GCCOG to work with CAC members to develop a suite of early action items that could result in either reducing emissions from key sources or which would help lay the groundwork for future elements of a more comprehensive AQAP. This additional activity, included the identification of a set of nine pollution reduction recommendations from stakeholders from key environmental groups that, pending approval of the I-710 Project Committee and Executive Committee, could be implemented in the next few years (while the final AQAP is being developed) and could have an appreciable impact on air quality in the 710 Corridor. The essential element of the early action items is to identify a discrete selection of potential emission reduction measures that the I-710 Corridor communities could actively help to implement.

These are the components of this report. The pages that follow will reflect both the initial and amended scopes of work.

III. Summary of Meetings with Stakeholders.

As previously discussed, one of the objectives of this effort was to re-engage those who were involved in the Community Advisory Committees as well as with members of the I-710 OPC to ensure that attitudes and expectations regarding the AQAP have not changed since the publication of the Tier 2 report and the approval of the Locally Preferred Strategy in 2004. In addition, these meetings were meant to solicit ideas and input from I-710 Corridor stakeholders for measures that they would like to see included in the AQAP. Collecting these ideas, along with those which had already been recorded in the Tier 2 report and from work done by the other agencies, will provide the basis for the scope of work for the AQAP. These meetings were held in December 2006 and in January and February, 2007.

This Chapter reviews the comments of 710 Corridor stakeholders from these meetings. In order to ensure consistency, a set of questions was developed by GCCOG to guide these interviews. These questions can be found in Appendix F.

A. General Observations

A result of the process is that interview subjects, with the exception of the Coalition for Environmental Health and Justice (CEHAJ) members, did not have many specific ideas regarding measures that they would like to see in the AQAP. For the most part, the comments were general in nature, or addressed the broad goals of the AQAP, but did not offer much in the way of definitive concepts that they would like to see explored in the next phase of the AQAP. The CEHAJ members did provide a list of their recommendations for early action items that are included in the subsequent section.

From the meetings, there were several common themes that emerged. Some addressed the elements that most stakeholders wanted to see examined in the AQAP, while other themes dealt with general concerns that stakeholders shared. These included:

Air Quality Monitoring

Almost every stakeholder interviewed spoke of the need for increased air quality monitoring in the 710 Corridor. A common perspective was that not enough data was being gathered on ambient air quality in the communities, and that this reduced the ability of local policy makers to address the public health issues. Virtually everyone wants to see more monitoring stations and greater public access to the data that they would produce.

A “Doable” Plan

A common theme was a desire for the AQAP to be both something realistic and doable. Several stakeholders said that they feared that the document would end up as nothing more than another volume on the shelf. They wanted to make sure that the outcome of this process is a plan that can and will be implemented by all the stakeholders who are identified as playing a critical role in its effectiveness.

Evaluation and Evolution

For the most part, the stakeholders who were interviewed want the AQAP to be a dynamic document that evolves so as to adjust to the changing policy, political and technological environment. The document must include mechanisms where it can be periodically evaluated for its effectiveness as well as processes where it can be adjusted in order to become more effective, if warranted. One thing that the AQAP must include is a clear structure for accountability.

Community Participation

Virtually all of the stakeholders mentioned that community engagement and involvement are critical to the success of the AQAP and to the entire I-710 improvement process. Community participation must be a priority in order to ensure that the plan has the credibility it needs in order to enjoy the support of the community.

B. Meetings with Elected Officials

Long Beach Vice Mayor Bonnie Lowenthal

This meeting took place on December 22, 2006 in the Long Beach City Hall. The Vice Mayor expressed the following points regarding the 710 freeway and the AQAP.

- The Vice Mayor would like to see a plan whose goal is a net improvement in air quality and views the AQAP as a common agenda for advocacy.
- The Vice Mayor believes that there have to be limits to port growth. Unlimited growth, she said, will hurt the City of Long Beach and the I-710 Corridor communities.
- There were a number of different measures that Vice Mayor Lowenthal would like to see prioritized in the AQAP. These include:
 - air quality measuring stations all along the I-710 Freeway. She suggested that epidemiological studies be conducted to better understand the rate of illness in the I-710 Corridor communities. She suspects that there will be a strong linkage between air quality and the incidence of disease.
 - truck inspections that cite trucks that pollute more. She understands that this would require legislation.
 - more on-dock rail employed at the ports to reduce truck trips.
 - limit truck traffic on the I-710 Freeway. She is not sure whether or how this can be done. Perhaps one way to limit the truck traffic is to restrict access to the proposed truckway to only those trucks that can pay a toll.
- She noted that there is a new Australian emission control technology for retrofitting trucks that she has been made aware of that she would like to see studied for its potential contribution to reducing air pollution in the ports.

- The Vice Mayor would like to see some of the economic benefits of developing the AQAP and other air quality improvement measures accrue to the I-710 Corridor communities. She would like to see the businesses that make products to improve air quality locate in the I-710 Corridor, and that there be some requirement or incentive that these businesses hire a certain percentage of their workers from the local communities. Perhaps enterprise zones can be established along the corridor to help with this objective. She also suggested that local government figure out ways to invest in the businesses that are manufacturing technology or helping to implement air quality control measures.
- The Vice Mayor believed that the programs such as PierPass have worked very well, but are band-aid solutions to a larger problem.
- The Vice Mayor suggested that truck scheduling be a part of any future system to manage port truck traffic. She believed that we may have to “ration mobility.”
- She doesn’t believe that absolutes can be used as milestones for progress. It is not reasonable to demand that the National Ambient Air Quality Standards be achieved before anything is done on the I-710 Freeway.
- She does not want to see “mom and pop” business suffer as a result of improvements on the I-710 Corridor.
- She is concerned about the drivers of port trucks. She said that, whatever is done on the I-710 Corridor, it must improve the standard of living of port truck drivers. It must make their vocation safer. It can not continue that they earn next to nothing providing an essential community service. There should be some requirement for freight brokers to provide health insurance.
- She supports container fees. She believes that the fees that have been proposed in some of the legislation are too low. She says that the public should not have to fund clean air and economic programs in the ports.
- She does have some concerns regarding the CAAP – she fears that they will not be able to identify the right technology, that they won’t have the money to implement the plan, and that the ports won’t reach agreement on which plan to follow.
- She also had some concerns regarding the AQAP – will it be a dynamic document? How long will it last? Who is going to maintain and enforce it?

Supervisor Gloria Molina, County of Los Angeles

County of Los Angeles 1st District Supervisor Gloria Molina spoke to GCCOG on January 25, 2007 at the headquarters of the Los Angeles County Metropolitan Transportation Authority. Supervisor Molina offered the following observations about the I-710 Corridor program effort:

- The Supervisor’s biggest concern about the AQAP is that it produce a realistic, doable plan.

- The Supervisor understands the importance of improving air quality, but also believes that it is impractical to wait until air quality standards are achieved to do any work on the I-710 Freeway. Progress toward air quality goals necessitates modifications and improvements to the freeway, and the fact that some issues may still be unresolved shouldn't impede the development of the AQAP or commencing with work on the I-710 Freeway.
- The Supervisor does not want to raise expectations about what the AQAP will be able to accomplish. She is concerned about creating an unrealistic plan.
- She suggested that the document assume responsibility for only what we can do. She is concerned that many in the community don't understand the mission. At the same time, she wants to make sure that those who are conducting the process value and validate community input to the AQAP.
- She would like for the AQAP to be a document that people can rely on. Everyone should be able to use it – it should be a tool for the community. She worries that too many plans are produced but then abandoned.
- Everyone needs to take ownership of the AQAP.
- She would like the AQAP to make sure that it looks at other contributors to poor air quality in the I-710 Corridor Communities, such as the ports and the Alameda Corridor, to name but two other sources of air pollution.
- She would like to make sure that the AQAP includes elements for monitoring air quality in the I-710 Corridor Communities. She believes that someone needs to collect real time data on air quality. The purpose of monitoring will be to determine if the mitigation measures are actually working. It would provide reassurance to the community that the AQAP is succeeding. She also suggests that if the monitoring reveals that the measures are not improving air quality, that this should trigger another set of more stringent air quality improvement measures.
- She would also like to see the AQAP include a process to constantly evaluate its effectiveness. It must be a dynamic, living document that has vitality. The evaluation of the individual measures will enable stakeholders to know what worked and what didn't.
- She would like for there to be a community engagement process that allows community members to participate in the AQAP. She wants to ensure that there is both accountability and continuity.
- She wants to make sure that the AQAP does not compromise air quality for the sake of the interests of a few influential people or business.
- She notes that she thinks that land use will have to be a part of the overall plan.
- She would like to see the COG more in the driver seat. The COG, she suggests, should have more authority to implement the AQAP. She thinks that the AQAP should explore some of the responsibilities that the COG can take for the implementation of the AQAP. She suggests that someone will need to be in the middle to make sure that everyone sticks to the goal.

- She said that, whoever is going to be taking ownership for the AQAP, everyone is going to need to back them up, including the County, the CARB, the SCAQMD, the City, the Ports, etc. She suggests that the AQAP could create a model for pursuing such endeavors in the future.

Nancy Ramos, Mayor, City of Commerce

The meeting with former City of Commerce Mayor Ramos was held on January 30, 2007, at Commerce City Hall.⁸ Also in attendance were several staff and community members from the City of Commerce, including Bob Eula, Chair of the City's Tier 1. Everyone participated in the discussion, which began with Councilwoman Ramos presenting a detailed history of the I-710 Corridor process and her involvement.

- She recalled that she first heard about the I-710 Major Corridor Study soon after she was first elected in March 2003 in a presentation to the City Council of the five options that were being considered for the I-710 Corridor expansion. According to Mayor Ramos, the preferred option would have wiped out 1/3rd of the City of Commerce, including two parks and a local landmark called Steven's Steakhouse.
- Mayor Ramos' impression was that the city was being lied to. She recalls that virtually every other city representative along the I-710 Corridor felt similarly. They believed that they were being misled and deliberately left out of the loop.
- She believed that the process led to a rebellion by nearly all of the I-710 corridor communities. After these presentations, including a public hearing in Carson, it was her impression that not a single city in the corridor was willing to allow the expansion.
- Several of the local organizations were instrumental in organizing the opposition to the I-710 Corridor process, including the East Yard Communities for Environmental Justice and the United Families of Bristow Park.
- Everyone in the Corridor had the same priority – addressing the health impacts of living along the I-710 Corridor and ensuring that mitigation of these adverse effects would take priority in any future planning. This led to the development of the Local Advisory Committees.
- The LAC process worked much better. Now every city had a voice, could provide positive input, and help shape the outcome. This fundamentally changed how the problem of the I-710 freeway would be addressed.
- Mayor Ramos opposes the CARB railroad MOU and SCAQMD Rule 1309 (Priority Reserve). She explained that these are examples of policy being developed without regard to local input.
- She would like to see a reactivation of the LACs. She observed that maintaining a local community committee isn't mandatory, but being left up to the local governments. She would like to see a little more certainty that community voices will be heard and would like to see the reintroduction of every community's LAC.

⁸ Mayor Ramos was defeated in the March 7, 2007 city election.

- As an example of the value of involving the community, Ramos observed that there was a ramp that was being proposed for the I-710 that was absolutely unacceptable to the community. She led opposition to the ramp, and forced a study of alternatives. Although it took a long time for people to trust the process, the new consulting team really listened to the community and the local governments. The process, in which cities and neighborhoods were really involved, came up with some great ideas for alternatives. This is an example of the process as it should be.
- Bob Eula noted that these “alternative methods” of planning have received a great deal of attention from other transportation and planning agencies around the state, as they have proved that collaboration and community input works. What they have pioneered in the I-710 Corridor is becoming a model for freeway development.
- Bob Eula also noted that the Tier 2 committee produced some of the best work on the community’s interests regarding I-710 Corridor Expansion. This, he believes, is the body that must be listened to. Their representation of community interests was excellent, as they have the knowledge of the community.
- Mayor Ramos seconded this observation. She wanted to make sure that the Tier 2 report makes up the foundation of what is to be done. She noted that both Supervisors Molina and Burke fought to make sure that the Tier 2 language was included in any future authorizing language for funding the I-710 Corridor process. The output of the Tier 2 committee was the “meat and potatoes” of why this process was pursued by the communities and local governments.
- She reiterated many times that the community has the intelligence to contribute to this process.
- Regarding program elements that she would like to see in the AQAP, she believes that Fleet Modernization is critical. She noted that it is very difficult for government types, particularly at the Federal level, to understand fleet modernization. She has been in rooms in which representatives of public agencies look on in disbelief as she tries to explain how fleet modernization works.
- Bob Eula mentioned that he would like to see air purifying units in local schools. He would also like to see a more concerted effort to try to help local residents understand the health consequences of living so close to the freeway.
- Mayor Ramos said that enforcement and monitoring were essential future elements of the I-710 Corridor process. Currently, she observed, there are too few monitoring stations, and those that do exist are not in the right places. She also noted that enforcement is absolutely critical, particularly when it came to the railroads. There need to be more inspectors who ensure that they are doing what they are supposed to. The AQAP must include a realistic funding plan for enforcement and monitoring.

- Staff mentioned that there should be electrical plug-ins at all major distribution facilities so that trucks and Truck Refrigeration Units (TRUs) could plug in. There should also be anti-idling rules.
- She complained that the City of Commerce is never on the map when someone conducts a health risk assessment. The 90040 zip code never gets included. Although everyone knows that the City of Commerce is heavily impacted by emissions from the freeways and the railroads, the absence of data from the City makes it difficult to lobby on behalf of the City when she is in Sacramento or Washington. She would like to see this change. Future health risk assessments must include the 90040 zip code. Perhaps mitigation fees from freeway construction can go to fund this, and come back to the cities for them to invest in local public health needs.
- She also spoke out forcefully against the CARB MOU with the railroads. She believes that CARB is working for the railroads, not the people. She insists that the AQAP not include any private MOUs with any party, nor should it allow for the relaxing of any rule that contributes to pollution. Finally, she says that she wouldn't want to see any funding go to the railroads unless there is a clear and defined public benefit.
- Both Mr. Eula and Mayor Ramos insisted that the entire I-710 project must include funding for sound walls. These should be an integral part of the project. Mr. Eula noted that he first requested a sound wall for the Washington Blvd off ramp from the freeway in 1954 and it still hasn't been built.
- Mayor Ramos would like to see Best Available Control Technology (BACT) required in the rail yards.
- She is concerned that the input from the communities will be ignored in the development of the AQAP. She wants to make sure that communities have a voice in the development and implementation of the AQAP. She worries that the measures proposed in the Tier 2 report will be relaxed or lost.
- Mayor Ramos is also concerned about the implementation of the AQAP. She notes that there isn't a single agency that encompasses all of the necessary responsibilities. Public agencies tend not to talk to one another – and funding gets depleted as agencies battle it out for control of resources or engaging in the blame game. Also, if there is not funding the agencies pass the buck – then no one picks up the ball to work on mitigation. There is also a problem because of the disconnect between the state and the Federal government and the fact that California is a donor state.
- She suggested that, if the AQAP is going to work, we may need a new agency that encompasses all of the authority needed to improve air quality.
- She stated that she hoped that the AQAP is a document that gives the ability to enforce to key agencies. She hopes that it isn't just another "drawer document", and that it actually lowers emissions. The Mayor insists that communication to communities is key to the AQAP's success. All sides of the I-710 issue must be

constantly notified of the AQAP development process. Need a good notification process to build confidence in the document.

C. Meetings with Members of the Community Advisory Committees

Tier 1 and Tier 2 Committees

On January 31, 2007, the Gateway Cities hosted a meeting for all of the members of both Tier 2 corridor level committee including those members who were Chairs of their local Tier 1 Committees as well as those who were at large stakeholders at GCCOG offices in the City of Paramount. Attendees included:

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| Glenna Amos | City of South Gate |
| Ed Avol | USC |
| Gustavo Comacho | East LA |
| Cliff Dunbar | City of Bell Gardens |
| Bob Eula | City of Commerce |
| Karen Heit | Gateway Cities Council of Governments |
| Bill Padgett | City of Paramount |
| Ray Park | City of Carson |
| Patty Senecal | California Trucking Association |
| Harold Tseklenis | City of Downey |
| Rod White | City of Lynwood |

- The meeting was chaired by Jerry Wood of the GCCOG, who gave summary presentation of the history of the I-710 Major Corridor Study process and the status of the Environmental Impact Report (EIR). Important points on the EIR include:
 - The total cost of the EIR is projected to be \$30 million, and is be funded by seven different public agencies.
 - The RFP for the EIR has been released and the contractor should be selected.
 - For the first time in an EIR for a freeway, a health risk assessment will be included.
 - Community input will be provided throughout the entire EIR process.
- On a separate but related track, consultants are being hired by the Ports to evaluate the feasibility of alternative technologies to carry containers from the ports to near dock intermodal facilities.

Comments about the Tier 1 and Tier 2 process included:

- There was general agreement among the attendees that the facilitators did very good jobs keeping the previous meetings focused and on-track, helping the community understand the process. The facilitators were also very diplomatic in their management of the discussions. Several committee members appreciated

that the facilitators kept “poker faces” and displayed no bias for one position over another.

- Number of Meetings: Harold Tseklenis asked for more meetings to be held, perhaps as frequently as once per month. He felt that quarterly meetings were not frequent enough. Others agreed, and consensus seemed to build around holding meetings once a month through the EIR process and then on an as needed basis.
- Meeting Schedule: The previous round of meetings were not pre-planned which allowed for people to request nights that did not conflict with their schedules. However, Gustavo Comacho requested that, if meetings were going to be held as frequently as once per month, it would be helpful to pre-schedule them in advance. Evenings are best, from about 6:00p - 9:00p.
- Community Participation: Some expressed frustration with the fact that public comments took up too much time and were repetitive. Due to the Brown Act, this process has to be public so it wasn't clear what exactly could be done to limit redundant comments by community members. The high level of participation was admirable, but it limited the time that committee members could actually deal with substance. It was suggested that, when groups come to participate in the meetings, and they all are going to say essentially the same thing, that they appoint a spokesperson to speak for them.
- Meeting Minutes: It was helpful that these were distributed before the next meeting so that they could be reviewed. Some prefer to have these electronically and some prefer a hard copy.
- Transparency: The group agreed that there is a need for transparency during the whole process and to make sure that all members are aware of what is going on.

Comments about measures that attendees would like to see in the AQAP included:

- Monitoring Stations: Harold Tseklenis raised the point, and all agreed, that there needed to be more air quality monitoring stations set up before any work began in order to establish an accurate baseline. Continuous measurement of air quality is essential to not only establish a baseline, but to understand if progress is being achieved. It is vital that the project members and the community know what emissions levels are at the beginning in order to be able to evaluate any emissions reductions. It was also suggested that a program be developed to provide real time publication of the results of this monitoring. It is also important that these monitoring stations be set up in strategic locations that reflect the exposure of neighborhoods to air pollution from the freeway. This theme was mentioned several times throughout the meeting. It was discussed that perhaps AQMD could provide these stations, or that funding come from the \$1 billion in bond funding from Proposition 1B.
- Compliance: The Tier 2 report stated that the area must be in compliance with state air quality standards before any mainline freeway construction could begin. There was some disagreement regarding the meaning of this requirement. Some insisted that this applied only to the “mainline”, or the primary freeway

development, and did not apply projects that could improve efficiency or address congestion and safety. It was also mentioned that a study should also be done showing what would happen if the area was not in compliance and there were no actions taken.

- Air Dispersion Studies: An air study should be done so that the communities know where the air goes from the I-710 area; that is, who bears the brunt of the air pollution if it is not cleaned up in the I-710 Corridor.
- Glenna Amos mentioned the importance of Health Risk Assessments and the need to address the public health impacts of living next to the freeway.
- Gustavo Comacho targeted the health issues of children and senior citizens. He wants to make sure that future studies address the illnesses that are associated with exposure to the pollutants in the air. The monitoring also should track increases and decreases in these pollutants. With this and other information, the community can begin to establish an economic impact from air pollution.
- Tree Planting: Emission reductions and/or mitigation from this type of project should be assessed.
- Hybrid Access: Cliff Dunbar suggested that the plan include incentives for the use of low emission and hybrid trucks in the proposed dedicated truck lanes, and possibly even restrictions against the use of diesel trucks. Patty Senecal pointed out that sometimes toll lanes can have a negative effect. With regard to studying turnaround times, there is no information on freight mapping that identifies which trucks are going where and how long it takes them. This is something the goods movement industry is in desperate need of.
- Terminal Efficiency: Several attendees asserted that improving terminal efficiency could also contribute to improving traffic flow on the I-710. An industry standard should be developed for ports and railroads that establishes the definition for reasonable turn time.
- Forward thinking: Ed Avol commented that it is important to realize that the AQAP should not just look at the I-710 as it is now, but how it will be in the future and recognize that it is part of a much larger patchwork of freeways and goods movement corridors. It is at least as important where the cargo started from and where it ends up. Traffic patterns in these areas must also be considered.
- Realistic and Timely: Bill Pagett said that the AQAP should produce a plan that definitely could be implemented. The plan should be something useable so that it doesn't end up another binder on the shelf. It is important to consider the time frame for implementation.
- Several attendees mentioned the importance of funding. Adequate funding will be essential for the AQAP to succeed. Funding should be considered in all measures.
- Passenger Cars were not even looked at in the previous report. There are more cars driving more miles than ever before. Perhaps this is something that the AQAP should consider was suggested.

- Urgency: The AQAP should convey a sense of urgency. Population is growing and already the problems that used to be unique to the I-710 freeway are now impacting the I-605 and SR-91 freeways. Things are getting worse and this has to be addressed, sooner than later.
- If there are land use measures in the AQAP, Harold Tseklenis suggested that these be incorporated in to the General Plans of the I-710 Corridor Communities.
- Bill Pagett suggested that the AQAP report on items that can be acted upon regionally and locally.
- A question was raised regarding the process once the AQAP is published. If a measure is not progressing, would it be possible to identify and report back to the Community Advisory Committees what is preventing the measure from advancing?
- The discussion then turned to the fact that the GCCOG has no regulatory authority and members were questioning how the AQAP would be used.
- Jerry Wood pointed out that just about everything that the group asked for in the Tier 2 report is being done. His perspective is that the document did motivate state and local agencies to action.
- The question then became, does the group just want to use the AQAP as a tracking system to keep tabs on where the regulations are and where the bottlenecks lie.
- Cliff Gladstein outlined how he saw the GCCOG's role. First, the individual municipalities within the GCCOG do have authority, whether through their planning or transportation departments. Monitoring the actions of the regulatory agencies is good, but even better would be to take policy recommendations back to their municipalities and implement them on a city level, such as passing business ordinances, making changes to the General Plan etc. Secondly, the GCCOG has the ability to ask traditional and non-traditional community groups to hold policymakers accountable for reporting and achieving the goals they stated they would. This group can put pressure on the elected officials as well.
- Harold Tseklenis claimed that there are things that are happening that the Community Advisory Committees are not being told. Because of this, he insists that the process have more transparency, better communications and more frequent correspondence.
- The group suggested inviting the railroads and other transportation sector members to attend the meetings, as well as members from the AQMD, ARB and local chambers in the future.

D. Meetings with Representatives of the Environmental Community

Two meetings took place with representatives of environmental organizations. The first meeting took place on January 16, 2007 and was held at the offices of Communities for a Better Environment in Huntington Park. The second meeting was held on February

21, 2007 and was held in the offices of East Yard Communities for Environmental Justice in the City of Commerce.

January 16, 2007

Attendees to the January 16th meeting included the following representatives from local environmental and environmental justice (EJ) organizations that had participated in the Tier 2 Community Advisory Committee. Attendees included:

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| Elina Green | Long Beach Alliance for Children with Asthma |
| Malcolm Carson | Legal Aid Foundation of LA |
| Cecilia Sandoval | Long Beach Alliance for Children with Asthma |
| Yuki Kidokoro, | Communities for a Better Environment |
| Angelo Logan | East Yard Communities for Environmental Justice |

- As the meeting began, almost immediately it became clear that the representatives from the EJ groups had a different expectation of the purpose of the meeting. Malcolm Carson explained that the \$75,000 that MTA allotted for the AQAP development should have, in their minds, been given to GCCOG for the purpose of creating a near-term AQAP that outlined measures that could be implemented in the short term to bring the corridor in to compliance. Anything that was short of that expectation would be a disappointment.
- The environmentalists’ assumption about this meeting was that GCCOG would be presenting an initial draft of the short-term plan air quality improvement plan. They were disheartened and frustrated to learn that this was not the case.
- From that beginning, the representatives in the room said that they were not willing to discuss air quality improvement programs that they would like to see addressed in the AQAP because, in their view, this dialogue should happen in a public forum in which members of the community could provide insight and suggestions to the decision-makers.
- The EJ groups emphasized time and again that this is the basis of how their organizations operate, and that they felt that they did not have the legitimacy to negate anything that the Tier 2 process produced. They emphasized that they operate on a democratic model, and that their jobs are to ensure that the community has a voice in the process. They insisted that they could not presume to interpret for the community what the community would like to see included in the AQAP – that the community should be included formally in this process to describe the measures that they would like to see considered in the AQAP. They regard the AQAP as an aspect of a public process that was agreed to by the GCCOG, and they don’t want to usurp that process.
- The environmental groups in attendance were not interested in discussing ideas behind closed doors, and were concerned that the process in which we were engaged could result in a report that just collected dust on a shelf.
- Environmental groups represented at the January 16th meeting were interested in knowing more about what has occurred in the more than two years since the

Tier 2 report was published, and what impact these new measures might have on air quality in I-710 Corridor communities. They were interested in better understanding how measures that were being proposed or implemented by third parties could benefit the I-710 corridor communities, and what could be done to enhance the effectiveness of these air quality improvement measures along the I-710 Corridor. This, they felt, could serve as a good purpose for the AQAP.

- The group emphasized, however, that they did not want to see a laundry list that outlines what is already being done by other agencies and organizations. They specifically mentioned the “Compendium” and that, although this was a useful document, that they did not believe that it could serve as a platform upon which to build the AQAP.
- The environmental activists would like the AQAP to be independent of what other parties are doing. They don’t want the AQAP to be dependent on the existence of other air quality improvement programs, because they are concerned that if those programs should go away, that the AQAP would disappear as well and they want to ensure that the AQAP has a life and a purpose of its own. The groups want an independent, stand-alone air quality improvement plan that goes above and beyond what other plans have already outlined.
- The environmentalists in the meeting suggested that several public forums be held that include community members as well as technical experts from the Tier 2 committees. The goal of the forums would be to create and approve a near-term plan that outlines all the actions that must be undertaken before construction can begin.
- While the groups realize that \$75,000 will not cover all of the expenses of drafting a near-term AQAP, they do believe that the funds could be used to produce a document which moved the ball down the field more than the existing scope of work. Malcolm Carson said several times that he wanted a “near term” AQAP with the resources that have been provided. This view comes, in part, from a perception that this may be the only resources that are provided by the MTA toward the development of the AQAP, and they want to ensure that it produces something that can be used by the community to organize around and which will lead to air quality improvements along the I-710.
- Several times they reiterated that they believe that they have a commitment that nothing will be done to modify the I-710 until the communities along the corridor meet national ambient air quality standards.

February 21, 2007

This meeting was held with members of the Coalition for Environmental Health and Justice (CEHAJ), an ad hoc group of environmental and environmental justice organizations created to monitor the I-710 Corridor planning process and to advocate positions consistent with improving public health. Attendees at this meeting included:

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| Angelo Logan | East Yard Communities for Environmental Justice |
| Elina Green | Long Beach Alliance for Children with Asthma |

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| Yuki Kidikoro | Communities for a Better Environment |
| Candace Kim | Coalition for Clean Air |

- The meeting began with expressions of “disappointment and dismay” from CEHAJ folks regarding unmet expectations associated with the expenditure of the \$75,000 which was allocated from the MTA for the development of the “short term air quality plan”, as mentioned in the Katz amendment of June 22, 2006 authorizing the money. They reiterated earlier expressions that they had hoped to see a roadmap for the implementation of the measures that were first identified in the August 2004 Tier 2 report.
- Several CEHAJ members expressed the belief that the process needed to adhere more closely to the “original intent” of the Tier 2 process and report. We replied that this is precisely what we intended to produce, and that we believed that the effort in which we were engaged would advance the AQAP.
- This discussion progressed to a review of the hopes and wishes of CEHAJ regarding the Air Quality Action Plan. Some of the common themes included:
 - The AQAP should be a “really clear roadmap” for what I-710 corridor communities can do to bring the I-710 corridor in to compliance with Federal air quality standards. The local cities seem to think that the SCAQMD is doing all the work – the AQAP has to bring air quality activities down to the local level;
 - The AQAP should be a plan for measures and activities that last the life of the I-710, not just for the period of construction;
 - The AQAP should present a clear plan that lays out the steps that need to be followed to achieve clean air in the I-710 Corridor communities.
 - The AQAP should be something that everyone can rally around;
 - The AQAP should be prescriptive;
 - All of the I-710 Corridor cities should commit to implement the AQAP;
 - The AQAP must have action items in it, and CEHAJ was hoping that the “short term air quality plan” specified in the Katz resolution would include air quality action items.
 - The scope of work for the AQAP needs to identify specific next steps for each strategy that was outlined in the Tier 2 report.
 - CEHAJ is “nervous” that the report that GCCOG is currently developing will resemble the compendium of measures that they have already received but which will not specify who is accountable for implementing the measures.
 - CEHAJ would like for there to be language in the report that clearly states that it is an interim document and should not be interpreted as the final AQAP.
- There was some recognition of the limitations (primarily financial) of the current effort that is being funded by the \$75K. CEHAJ representatives indicated that

they understood that GCCOG could not produce the final AQAP for the resources that were allocated in June 2006, and that more resources would be necessary to develop the plan that they envisioned.

- Some brainstorming took place regarding the securing additional funds for the development of the AQAP, including asking each of the I-710 Corridor communities to contribute.
- A discussion took place regarding how the GCCOG could respond to CEHAJ's interests with the resources which had been allocated. The discussion led to the idea that this phase of the AQAP process produce not only the blueprint for future activity, but that it also propose a set of "early action items" that could serve as the basis of initial activity focused on achieving immediate emission reductions.
- CEHAJ proposed a list of ten early action items that the group would like to see developed in this report. These included:
 1. Pool local resources to advance the AQAP. In addition to LACMTA, SCAQMD, and other regional and state agencies, I-710 corridor city governments should be asked to contribute to the fund to develop the AQAP. Every community in the I-710 Corridor needs to participate in the effort, which shows interest and commitment in the goals of the AQAP.
 2. City fleets should convert their vehicles to low emission alternative fuels and to install the best available control technology to reduce emissions of existing equipment.
 3. Container Fees. The I-710 Corridor communities should work to ensure that any legislation to establish container fees includes strong provisions that a portion of the resources will be used to reduce emissions on impacted corridor communities and to improve air quality monitoring and reporting in the area. The early action item is for the I-710 Corridor communities to work to influence the language of any container fee legislation so that it includes language that supports the implementation of the AQAP and the improvement of air quality along the corridor.
 4. Air Quality Monitoring. The I-710 Corridor communities have had discussions with the SCAQMD regarding increasing the number of air quality monitoring stations located in the I-710 Corridor. This early action item involves the development of a partnership between the I-710 Corridor communities and the SCAQMD for the development of the new air quality monitoring system in the I-710 Corridor. Local governments should consider setting aside some matching funds in order to accelerate the roll out of the new monitoring system, as well as to ensure a role in the new systems development and operations.
 5. Anti Truck Idling Ordinances. I-710 Corridor communities will either pass ordinances restricting truck idling in their communities or invest resources in enforcing state anti-idling ordinances. This includes training public safety officers in how to recognize and enforce anti-idling regulations. Local

governments will also help to educate truck operators and distribution facilities about the importance of complying with idle restriction regulations.

6. Conditional Use Permits for New Warehouses. I-710 Corridor communities will adopt requirements for new warehouse and distribution facilities including idle restrictions, provision of electrical outlets to plug in reefer units, restrictions on the use of diesel power auxiliary power units, requirements for alternative fuel cargo handling equipment, and other emission reduction measures.
 7. Support legislation to reduce emission from diesel. I-710 Corridor communities will endorse legislation that either provides for stricter standards for heavy duty diesel engines or which provides incentives for the retrofit or replacement of diesel equipment with cleaner technology.
 8. Construction Equipment Requirements. I-710 Corridor communities will consider ordinances or incentive programs to either require or encourage companies performing local construction to use only the cleanest construction equipment. Contractors will also be required to provide plans on how they will reduce emissions from their diesel equipment.
 9. Sensitive Receptors. I-710 Corridor communities will create plans to reduce the exposure of sensitive receptors to diesel exhaust. Such plans could include requirements that trucks be rerouted away from schools, senior centers, medical facilities, etc. and/or the development of standards for landscaping near such high priority facilities.
 10. Buy Local Ordinances. The I-710 Corridor communities are subject to excessive levels of air pollutants because of the volume of cargo that enters the San Pedro Bay Ports. If Americans consumed more locally produced products, then not only would it help the U.S. economy, but it would also have a positive impact on the amount of pollution caused by goods movement through the ports. The I-710 Corridor communities should pass resolutions establishing preferences for goods and services produced in Los Angeles County, in California, and in the United States.
- The CEHAJ representatives would like to review the list of early action items that we developed together to confirm that it represents their understanding of the discussion and to assist with the development of these proposals.

May 10, 2007

This meeting was held at the Coalition for Clean Air Office in downtown Los Angeles. The purpose of this meeting was to review the ten early action measures that had been proposed by the environmental community in the February 21st meeting. From the environmental community, the meeting was attended by:

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| Angelo Logan | East Yard Communities for Environmental Justice |
| Tim Gabriel | Natural Resources Defense Council |
| Elina Green | Long Beach Alliance for Children with Asthma |

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| Yuki Kidikoro | Communities for a Better Environment |
| Candace Kim | Coalition for Clean Air |
| Cynthia Romo | Long Beach Alliance for Children with Asthma |

The meeting began with an expression of concern about whether the ten measures in the draft section of the report that the environmental community had an opportunity to review constituted the entire document. They were assured that the pages that they were commenting on comprised only a small section of the overall document, and that the entire document would be ready in draft form in a matter of weeks. The environmentalists inquired whether they were going to have an opportunity to review the entire draft report prior to its release to the public, and they were told that they would receive the draft at the same time as everyone else.

The conversation then turned to a discussion of the specific measures (the originals of which are found in the previous section of this chapter). What follows is a summary of the environmentalist’s comments on the draft early action items that they wanted to recommend to the Project Committee.

Pool Local Resources to Advance the AQAP.

Concern was expressed that the recommendation reflected a request that the I-710 Corridor communities fund the AQAP. Participants in the meeting wanted to make sure that other entities, such as the SCAQMD, LACMTA, CalTrans and others help fund the AQAP. The cities of the I-710 Corridor should not be the sole source of funding for the AQAP. The AQAP, the CEHAJ representatives urged, should include a funding plan that was very specific about where the resources to implement the AQAP would come from. In addition, they insisted that the funding plan for the AQAP include specific milestones and denote who will be responsible for managing and dispensing the resources.

Conversion of City Fleets to Cleaner Fuels

The draft of the recommended early action items called for the conversion of heavy duty diesel vehicles in municipal fleets to natural gas, recognizing that, in the near term, natural gas is the only technology that is commercially available to achieve surplus emission reductions beyond those which are already mandated by law. CEHAJ representatives were uncomfortable with the designation of a specific fuel for a recommended early action, claiming that there may be other technologies which emerge which could yield larger emission reductions. They would prefer to see the language modified to reflect the best available technology.

Support Container Fees and Policies which Direct Resources to the Implementation of the AQAP

At the May meeting, CEHAJ representatives expressed concern that amending existing container fee legislation so that some of the resources would be directed to the I-710 Corridor cities to implement the AQAP may create obstacles to the passage of the legislation. They also expressed reservations that this would be an appropriate way to fund the AQAP.

Development of Air Quality Monitoring Program for the 710 Corridor Communities

It is very important to CEHAJ that there be a clear definition of which cities are a part of the I-710 Corridor so that participants in the monitoring program are specified and the program is not diluted by the participation of cities that are not impacted by the Corridor. Equally as important is for the AQAP to make very clear who is tasked with the development and the management of the air quality monitoring program. The AQAP, they environmental activists urged, should provide the community with a step-by-step blueprint of how the new air quality monitoring program will be funded, managed, and how and when information will be reported to the public.

Development of Local Ordinances Restricting Truck Idling

The primary concern expressed regarding this section was a reference to the PierPass program, which has since been deleted, as it had nothing to do with the substance of the proposed early action item.

Conditional Use Permits for New Warehouses and Distribution Facilities

The primary critique of this section by the environmentalists was that it was too weak. They would like to see the language in the recommendation strengthened to reflect the position that it would be best for the cities to pass and implement the entire package of proposed ordinances, and not pick and chose which measures they would approve. Language was recommended that was incorporated into the language of the recommendation. In addition, the environmentalists would like to see the language include not only new warehouse and distribution facilities, but also big box retail facilities and other new developments that generate significant truck traffic.

Support Legislation to Reduce Emissions from Diesel-fueled Vehicles and Equipment

The representatives of the environmental community no longer support this measure would like to see it removed from the list of recommended early action items.

Requirements on Construction Equipment Used in I-710 Corridor Communities

The CEHAJ representatives in the meeting had three primary comments about this draft recommendation. First, they would like to see the measure patterned on the successful program to reduce emission from construction equipment that has been implemented by the Los Angeles World Airports. Second, they would like to see more emphasis on requirements and less on incentives. Finally, they would like to see the recommendation be elevated to a binding requirement contained in all future Requests for Proposals (RFPs) that are issued by participating cities.

Plans to Reduce Exposure of Sensitive Receptors to Diesel Exhaust

Rather than require I-710 Corridor Cities to develop plans to reroute trucks away from sensitive receptors, the environmentalists would like to see this be a recommendation to create truck-free zones in impacted cities that project sensitive receptors. In addition, CEHAJ would like to see this measure expanded to include infrastructure improvements which also help reduce exposure to not only diesel exhaust, but to other harmful impacts of living in close proximity to transportation corridors. They would like to see

resources provided to help fund community clinics, erect sound walls, install double-paned windows and air filtration systems, and other measures which would help reduce the public health impacts of living near the I-710 Corridor.

Buy Local Ordinances

CEHAJ would like to see this measure contain specific deadlines for compliance. Also, recognizing that many cities already have such ordinances, this recommended early action measure should refer to strengthening existing policies.

In general, the environmental representatives in this meeting would like to see all of the recommended early action items contain specific timelines and deadlines for implementation, as well as clear designation of responsible parties.

IV. Review of Air Quality Policy and Programs since the Approval of the LPS

This section reviews the primary emission reduction measures that have been proposed or which are being implemented that should improve air quality in the I-710 Corridor Communities. This includes the ideas which were listed by the Tier 2 Committee in their August 2004 report, the measures that are contained in the CAAP, the measures that are being implemented by CARB as a result of the Diesel Risk Reduction Program or the Goods Movement Action Plan, by the Alameda Corridor Transportation Authority, and by the South Coast Air Quality Management District.

The emission reduction concepts presented here form the foundation for the GCCOG's development of the AQAP. All these measures should be fully analyzed for their benefits to the I-710 Corridor Communities. The next phase of work on the AQAP should include: an examination of the emission reduction potential of these measures in the I-710 Corridor, a cost-benefit analysis of these measures as well as recommendations for actions that I-710 Corridor Cities and other stakeholders can take to maximize the air quality benefit of these measures in the I-710 Corridor Communities. These next steps or phases would include a monitoring effort to "track" the progress of the various air quality strategies and programs and report strategies and progress and provide analysis when needed. This is further detailed in later sections of the report.

The examination of the emission reduction potential of air quality measures in the I-710 Corridor Communities is necessary to determine the extent to which the activities that were recommended by the Tier 2 Committee as well as those measures which are being developed or which have already been implemented will result in emission reductions in the neighborhoods which currently suffer from exposure to air pollution along the I-710 Freeway. Not all air quality measures will have the same benefit – measures which focus on reducing emissions from ocean going vessels will have significant impact on Long Beach, but less benefit for the City of Commerce, while measures to reduce emissions from locomotives will help the communities which are adjacent to intermodal facilities more than those which are distant from rail line. The projected emission reduction benefits analysis is necessary to evaluate whether air quality programs will reduce pollution in the I-710 Corridor as well as to help local stakeholders determine if there are ways to increase the benefit of a measure's implementation. The next phase of the AQAP will need to begin with this detailed analysis of the emission reductions of these measures that will take place in the I-710 Corridor Study Area.

The cost-benefit analysis is recommended to provide the AQAP with a means to prioritize those measures which yield the maximum air quality benefit in the I-710 Corridor Communities. This information can then be recommended to decision makers in the region to determine where resources and energy should be expended to maximize the health benefits to the community. For instance, a particular measure could result in substantial emission reductions state-wide or throughout the South Coast

Air Basin, but may have limited impact on the I-710 Corridor. Thus, it may be more cost effective for I-710 stakeholders to elect to support another measure that will have greater impact on their community.

Finally, most of the emission reduction measures that are listed here are being proposed by agencies whose jurisdiction is state or region-wide, or whose jurisdiction does not extend beyond the port. When these agencies develop and implement emission reduction strategies, there is no guarantee that the I-710 Corridor Communities will benefit. The next phase of the AQAP must analyze the ways that I-710 stakeholders can ensure that they maximize the potential of these air quality measures to improve their community. For instance, there may be steps that cities can take to ensure that idle reduction regulations are met within their boundaries, or that trucks domiciled in their community obey retrofit regulations. The ways that I-710 stakeholders can enhance the effectiveness of these state, regional or port-focused emission reduction strategies should be addressed in the full AQAP.

In the pages that follow, GCCOG is providing a comprehensive list of the measures that are recommended to be a part of the AQAP. Most of these measures are being developed and implemented by third parties. Preliminary steps have been taken in this report to gauge the impact of these measures on air quality in the I-710 Corridor. Although imprecise, this effort has been undertaken to help guide future work on the AQAP by providing a cursory assessment of the air quality impact of each measure. The evaluation scale that has been employed here is as follows:

Substantial – the air quality benefit of this measure in I-710 Corridor Communities is judged to be major and this measure will be an important component of any effort to reduce the impact of pollution on Corridor Communities.

Moderate – the air quality benefit of this measure in I-710 Corridor Communities is judged to be considerable and this measure could be an important component of the AQAP.

Limited - the air quality benefit of this measure in I-710 Corridor Communities is judged to be constrained and this measure will provide less benefit to the I-710 stakeholders than those listed as Substantial or Significant.

None - the air quality benefit of this measure in I-710 Corridor Communities is judged to be negligible and thus little or no attention should be invested in pursuing this measure.

It is important to note that 29 of the 44 measures outlined in this Chapter have been approved or will be approved within the near-term (within five years). Many ARB measures have already been implemented with the majority of those remaining going to the Board within the next two years. The SPBPs have already begun to implement the measures in the CAAP. This reinforces the perception that much progress has occurred since the publication of the Tier 2 report and the approval of the LPS.

SECTION A
California Air Resources Board
Goods Movement/Diesel Risk Reduction Measures

Title of Measure

Regulation for Mobile Cargo Handling Equipment (CHE) at Ports and Intermodal Rail Yards

Responsible Agency

California Air Resources Board

Description

This measure requires stricter PM and NOx emissions standards for new and in-use CHE at California's ports and intermodal rail yards. For example, in-use yard trucks will be required to have engines that are certified to 2007 emission standards, or to be retrofitted with a verified diesel emission control strategy. Compliance schedules for various CHE can be found on the website below.

Status

Measure was approved by CARB in December 2005. Requirements began in January 2007.

Annual Emissions Reductions

PM

Average 2007-2020: 67 TPY

NOx

Average 2007-2020: 1,433 TPY

While the emissions reductions indicated above are statewide, CARB states that the proposed regulation will provide particular benefits in areas having ports and intermodal rail yards. Additionally, CARB estimates that nearly 70 percent of the reported NOx and PM CHE emissions come from the South Coast District.⁹

Potential Benefit to the I-710 Corridor Communities - Substantial

Emissions from CHE impacts the entire I-710 Corridor. The CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBP complex (approximately four square miles), where 53,000 people live. Since the concentration of diesel PM in the air declines with distance from the sources, risk decreases the further one moves away from goods movement activity centers. However, the same report also found a 50 per one million elevated cancer risk more than 15 miles from the SPBPs. The CAAP states that CHE is the second largest contributor to SPBP PM emissions with diesel engines from OGV's being the first.¹⁰ CHE generates 14 percent of the total SPBP PM emissions and 12 percent of total NOx emissions.¹¹ In addition to the SPBPs, CHE is operated at the intermodal rail yards in West Long Beach and in the City of Commerce. Emission reductions at these sites will help reduce I-710 Corridor communities exposure to toxic diesel exhaust and will help the region reduce precursors to ozone-forming chemicals.

⁹ <http://www.arb.ca.gov/regact/cargo2005/isor.pdf>, p. III-3

¹⁰ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the "CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach" released in October, 2005.

¹¹ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Costs

\$71 million from 2007-2020. This estimate is for the capital cost of equipment, reporting costs, maintenance and replacement. Some operators will replace, some will retrofit and some will retrofit now and replace later.

Cost to Ports: Not Applicable

Cost to Industry: Total business costs are approximately \$1.8 million to \$9.2 million/year. CARB estimates the cost to each rail and terminal operator with CHE equipment will be approximately \$343,000 to \$1,373,000 (in 2004 dollars), depending on the size of the business.¹²

Cost to State: Some costs to CARB will be incurred in order to implement and enforce this regulation; however, it is believed that these costs can be absorbed in the current CARB budget.

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<http://arb.ca.gov/msprog/offroad/cargo/cargo.htm>

¹² <http://arb.ca.gov/regact/cargo2005/isor.pdf>

Title of Measure

Requirements to Reduce Idling Emissions from New and In-Use Trucks Beginning in 2008

Responsible Agency

California Air Resources Board

Description

This measure, developed as a follow up to the existing in-use idling measure that was adopted in July 2004, limits the amount of time sleeper berth equipped trucks can operate at idle. Model year 2008 and newer engines will be required to have a non-programmable engine shutdown system that automatically shuts down the engine after five minutes of idling, or alternatively will be required to meet strict NOx and PM idling emissions standards. Both in-state and out-of state in-use trucks will be required to manually shut down their engine when idling more than five minutes beginning in 2008.

Status

Measure approved by CARB in October 2005 and modified in June 2006. As noted, the measure will go in to effect in 2008.

Annual Emissions Reductions

| Estimated Statewide Idling Emission Reductions (Sleeper Trucks Only) | | | | Estimated South Coast Air Basin Idling Emission Reductions (Sleeper Trucks Only) | | | | | | |
|--|------|---------------------------|-----|--|------|---------------------------|-----|----|-------|--|
| Tons per Day | | Tons per Year = (tpd*365) | | Tons per Day | | Tons per Year = (tpd*365) | | | | |
| PM | NOx | PM | NOx | PM | NOx | PM | NOx | PM | NOx | |
| 2010 | 0.42 | 46 | 153 | 16,790 | 2010 | 0.15 | 18 | 55 | 6,570 | |
| 2020 | 0.10 | 56 | 37 | 20,440 | 2020 | 0.04 | 22 | 15 | 8,030 | |

Potential Benefit to the I-710 Corridor Communities - Moderate

The projected emissions reductions are significant and will provide benefits to communities that are located near truck stops, ports and distributions centers and other places where large groups of trucks idle for extended periods of time. The impact will be greatest at those facilities which provide food and lodging to long haul trucks. Due to the fact that most port trucks are not equipped with sleeper cabs, this measure will have limited benefit in the ports. In addition, if, through the CAAP, the SPBPs develop a standard port truck spec which guides their grant-making decisions, the specification is likely to include day cabs only.

Costs

Cost to Ports: Not Applicable

Cost to Industry:

Truck drivers and trucking companies will pay the following costs for anti-idling technologies and APU pollution control technologies that need to be installed on their vehicles:

- Pre-2007 model year sleeper cab trucks: \$5,000 to \$8,000;
- Model Year 2007 and newer sleeper cab trucks: \$7,000 to 10,100;
- Estimated fuel and maintenance savings: \$4,280 per year

Cost to State: Not Applicable

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<http://www.arb.ca.gov/msprog/truck-idling/truck-idling.htm>

Regulation Title

Port Truck Regulatory Program Development

Responsible Agency

California Air Resources Board

Description

This measure would reduce emissions from diesel-powered trucks in port service. CARB staff initially considered three strategies for this proposal and ultimately decided to pursue Strategy 3. This measure would be implemented in two phases: The first phase would require the replacement of all 1994 MY and older trucks and would require the entire fleet, including replacement vehicles, to be retrofitted with a diesel particulate filter and NOx catalyst. In a few instances, the NOx catalyst would not be required. The second phase would require that the entire port fleet meet 2010 emission standards by the year 2017. Incentive funding would only be applied to the Phase I efforts.

This measure is similar to the CAAP Measure HDV1 (see page 75).

Status

Air Resources Board to consider draft proposal in late 2007.

Annual Emissions Reductions

| | |
|------------------------------|---------------------------------|
| PM 520 TPY by 2010 | NOx 2,000 TPY by 2010 |
|------------------------------|---------------------------------|

An additional 4,750 TPY of NOx reductions are expected by 2020 after full implementation of Phase 2.

Potential Benefit to the I-710 Corridor Communities - Substantial

I-710 is currently the primary route for as many as 20,000 trucks per day carrying containers to and from the Ports. The corridor is expected to remain the primary corridor in the near future. Within ten years this measure would eliminate any truck from operating in the SPBPs that did not meet the strictest emission standard currently on the books. This would dramatically alter air quality in the I-710 Corridor, as many of the trucks that operate in the ports are pre-MY1994 and tend to be older than the state truck fleet average. Community members should monitor the development of this rule and participate in upcoming workshops.

Costs

\$590 million for truck replacements, retrofits and program administration.

Phase 1 Cost: The cost of truck replacement and retrofitting for the existing fleet of 12,000 trucks is estimated at \$280 million over a 10 year period.

Phase 2: CARB staff estimates the cost of Phase 2 is approximately \$200 million
 Two potential funding options:

1. Container Fees – levy fees on containers to either pay for the program or repay truck owner-operators for their investment.
2. Incentive Options – including Carl Moyer funding, general obligation bonds and federal funding to provide grants to enable truckers to purchase compliant trucks.

Cost to Ports: Not Applicable

Cost to Industry: The cost to industry could be considerable, depending on how the program is implemented. If the state provides grants for the transition in to newer trucks, the cost to industry can be reduced. However, grants may cover only a portion of the cost of the new trucks. For instance, the Gateway Cities Fleet Modernization Program has, on average, covered about 75 percent of the cost of the new truck. Truck owners would be required to pay for the balance.

One of the possible solution funding sources for an incentive program, container fees, would also levy a cost on the goods movement industry. Although it is not specified who would be responsible for those fees, presumably terminal operators or Beneficial Cargo Owners (BCOs) would be charged the container fee. CARB estimated 2007-2015 container volume transported by truck and suggested that a \$5 fee/off-loaded container transported by truck would pay for complete fleet retrofit under Strategy 3.

CARB also suggests a possible repayment scenario for reimbursing the cost to the truck owner would be to 'pay' a predetermined amount (\$5/container for Strategy 3) each time the truck picked up a container from the port until the modernization cost to the truck driver is refunded. There is no indication of where this funding would originate.

Cost to State: Using the incentive option to fund the program would cost the state nearly \$590 million. This funding could come in part from utilizing funds already designated for the Carl Moyer Program (up to 10 percent of current Moyer funding could be redirected), from state bond measures, or through US EPA clean diesel funding.

There are also potential costs to outsource program administration, which were not included in this analysis.

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Regulation Title

On-Road Heavy-Duty Diesel Vehicles (In-Use) Control Measure

Responsible Agency

California Air Resources Board

Description

This measure would reduce emissions from in-use heavy-duty diesel powered vehicles by requiring that owners of such equipment install in-use controls such as verified diesel emission controls to ensure engines operate as cleanly as possible.

Status

This regulation is in development phase with workshops planned in April 2007. Air Resources Board to consider a proposal at the end of 2007.

Annual Emissions Reductions

Not yet quantified

Potential Benefit to the I-710 Corridor Communities - Substantial

In-use heavy-duty diesel trucks use the I-I-710 corridor. This measure would apply emission controls to those heavy-duty diesel trucks that were not covered by any other measures. The development of this rule should be monitored, including participation in upcoming workshops.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

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Regulation Title

Rail Yard Emission Reductions Program

Responsible Agency

California Air Resources Board

Description

The railroads have committed to studying and reducing pollution risks at 17 designated rail yards in and around Los Angeles County. This agreement (which is a voluntary MOU, not a regulatory measure) obligates the railroads to reduce diesel emissions in and around rail yards in California. Three main provisions include: 1) a statewide idling-reduction program, 2) health risk assessments (HRA) for all major rail yards, 3) community and air district involvement in the preparation of risk assessments and enforcement of MOU provisions.

Status

Measure approved by CARB in June 2005.

Annual Emissions Reductions

Twenty percent PM reductions (baseline 2005) expected in and around rail yards. NOx reductions are unknown at this time. A draft health risk assessment (HRA) for the four Commerce railyards was released in May, 2007.

Potential Benefit to the I-710 Corridor Communities - Limited

This measure achieves a 20 percent PM reduction from current emissions levels and an undetermined volume of NOx emission reductions. Other sectors studied here are achieving emission reductions of 50 percent or greater. In addition, this is not a regulatory action – it is voluntary and thus there are limited enforcement options. The railroads operate intermodal rail yards in West Long Beach and in the Cities of Vernon and Commerce. This program should continue to be monitored as it is a voluntary MOU between the railroads and CARB along with the development of this measure and release of the HRA report.

In May, 2007, as this report was going to print, the ARB issued the draft Health Risk Assessment for nine of the sixteen railyards which were being studied as a part of the 2005 Statewide Railroad Agreement, including the four Commerce railyards. ARB took the opportunity of the release of the Draft HRAs to reiterate the programs that the agency is implementing to reduce emissions from intermodal operations, including requirements on port trucks, cargo handling equipment, transport refrigeration units and other measures. Coupled with new emission standards for locomotives, there is potential for substantial emission reductions from railyard operations in the future.

Costs

Cost to Ports: Not Applicable

Cost to Industry: Will vary based on company. No public information on cost is available.

Cost to State: Not Applicable

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Regulation Title

Diesel Particulate Matter Control Measure for On-Road Heavy-Duty Diesel-Fueled Vehicles owned or operated by Public Agencies and Utilities

Responsible Agency

California Air Resources Board

Description

This measure requires public agency and utility vehicle owners reduce diesel PM emissions from their affected vehicles through the application of best available control technologies (BACT) on these vehicles by specified implementation dates. Implementation is phased-in by engine model year groups.

Status

Measure was approved by CARB in December 2005.

Annual Emissions Reductions

| Estimated Statewide Emission Reductions | | | | |
|--|---------------------|------------|--------------------------------------|------------|
| | Tons per Day | | Tons per Year = (tpd*365) | |
| | PM | NOx | PM | NOx |
| 2010 | 0.15 | 0.3 | 55 | 110 |
| 2020 | 0.05 | 0.09 | 18 | 33 |

Potential Benefit to the I-710 Corridor Communities - Moderate

Over 80 percent of public agencies have fleets with fewer than 15 vehicles. These vehicles account for less than 20 percent of the 23,227 medium and heavy-diesel vehicles targeted in this measure. On the other hand, only 2.6 percent of the fleets surveyed owned over 100 vehicles, yet these fleets account for 46 percent of the vehicles targeted in this measure. The larger the municipality, the more the potential benefit to the community. The 17 cities encompassed by the Corridor presumably operate fairly small fleets of medium and heavy-duty vehicles. This is similar to one of the early action items sought by the environmental community.

Costs

CARB estimates that it will cost \$213 million to apply BACT to approximately 31,076 vehicles (estimated statewide fleet in 2006). CARB estimates the cost per vehicle at \$6,857 for the least expensive BACT option available (retrofit.) CARB estimates that program administration and compliance monitoring will cost the state approximately \$9.1 million.

Cost to Ports: Not Applicable

Cost to Industry (public agencies and utilities): The total program cost breakdown is as follows:

- Utilities - \$28,290,000 for to apply BACT to 4,140 vehicles;
- Local government agencies - estimated cost of \$156.6 million to apply BACT to approximately 22,839 vehicles (fleet size in 2006);
- Federal agencies - ~\$19 million (2005\$) for 2,771 vehicles, and
- Low-population municipalities and municipal utilities - approximately \$9.2 million.

Cost to State: \$9.1 million for administration and monitoring.

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Regulation Title

On-Road Heavy-Duty Diesel Engine In-Use Compliance Program

Responsible Agency

California Air Resources Board

Description

CARB, the U.S. EPA, and the Engine Manufacturers Association have developed a manufacturer-run heavy-duty diesel engine in-use compliance program. Under this program, all 2007 and newer heavy-duty engines are subject to state and federal emissions tests to ensure that they are not exceeding emissions limits. The tests will be an in-use test using a portable emission measurement system (PEMS) device. If the engine does not pass the emissions test twice it may be subject to recall. This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H2-a.

Status

This measure was adopted by the Board in September 2006. The U.S. EPA adopted a similar measure in June of 2005 which will be administered throughout the rest of the country.

Annual Emissions Reductions

Not applicable as this is a compliance regulation.

Potential Benefit to the I-710 Corridor Communities - Limited

It is difficult at this point to predict whether in-use testing of MY 2007 and later engines will result in enforcement actions that yield significant emission reductions. If there are enforcement actions, however, they will not result in surplus emission reductions, they will simply help guarantee that reductions from newer engines are maintained. A more useful monitoring and enforcement effort would result from this same test being applied to all trucks that use the I-710 Freeway. Fortunately, per proposed CARB regulations and the CAAP program, virtually all trucks that use the I-710 will be subject to the testing protocol outlined here. Agencies can be held accountable by monitoring the implementation of this program and ensuring that mobile monitoring units focus on the I-710 Corridor.

Costs

Cost to Ports: Not Applicable

Cost to Industry: Engine manufacturers will be required to test 25 percent of their engine families per year, with a minimum of 6 and a maximum of 10 trucks per family being tested. Each test costs \$3,000-\$4,000, so a minimum of \$18,000 per engine family and a maximum \$40,000 per engine family. Manufacturers will have multiple engine families to test each year.

Cost to State: Not Applicable

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Regulation Title

In-Use Off-road Diesel Vehicle Rule

Responsible Agency

California Air Resources Board

Description

This rule will reduce emissions from in-use off-road vehicles such as those used in construction, mining, and industrial operations. This measure requires that each fleet must meet the fleet average requirements by March 1 of each year or demonstrate that it applied the best available control technology (BACT).

Status

Air Resources Board to consider in May 2007.

Annual Emissions Reductions

Not yet quantified.

Potential Benefit to the I-710 Corridor Communities – Potentially Substantial

Off-road vehicles are a major source of both smog forming compounds and diesel PM. If improvements to the I-710 Corridor do proceed, there will be a high concentration of such equipment in close proximity to the residents of the I-710 Corridor for the duration of the construction. Measures that will reduce emissions from this type of heavy-duty diesel technology will therefore provide substantial relief to I-710 Corridor neighborhoods. At this time, however, there is no date on the potential emission reductions; thus more information will be needed to evaluate the utility of this proposal. Participation at regulatory hearings should be provided.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

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Regulation Title

Ocean-Going Vessel Main Engine Rule

Responsible Agency

California Air Resources Board

Description

This regulation requires the use of low-sulfur fuel in the main engine of ocean-going vessels (OGVs). [Note: This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H5-e.]

Status

Air Resources Board to consider in December 2007.

Annual Emissions Reductions

Not yet quantified. CARB is just beginning to conduct surveys of ships.

Potential Benefit to the I-710 Corridor Communities - Substantial

The CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles), where 53,000 people live. Since the concentration of diesel PM in the air declines with distance from the sources, risk decreases the further one moves away from goods movement activity centers. However, the same report also found a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.¹³

Additionally, the report found that ships using diesel engines at dock while hotelling were the largest contributor to emissions at the ports. While ships in transit produce a substantial portion of total port-related diesel PM, they did not produce a comparable cancer risk because these emissions are released off-shore and dispersed over a very wide area. Even so, the CAAP reports that OGVs produce 59 percent of the SPBP's total annual PM emissions, 36 percent of the SPBP's total annual NOx emissions, and 90 percent of the SPBP's total annual SOx emissions.¹⁴ While it is difficult to estimate community benefits without emissions quantifications, the proximity of the ports to the Corridor increases the likelihood of significant air quality improvements from this proposed measure.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

¹³ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the "CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach" released in October, 2005.

¹⁴ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Cost to State: Not Available

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Regulation Title

Ocean-Going Vessel Auxiliary Engines

Responsible Agency

California Air Resources Board

Description

This measure requires ships entering California’s ports to use 0.5 percent sulfur content Marine Diesel Oil (MDO) by January 1, 2007, or Marine Gas Oil for auxiliary diesel engines within 24 nautical miles of the California coast. Additionally, beginning January 1, 2010 MGO sulfur content may not exceed 0.1 percent. [Note: This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H5-e.]

Status

Measure approved by CARB in December 2005.

Annual Emissions Reductions

| Estimated Auxiliary Engine Emission Reductions with Implementation | | | | | | |
|--|--------------|-----|-----|---------------------------|-------|--------|
| | Tons per Day | | | Tons per Year = (tpd*365) | | |
| | PM | NOx | SOx | PM | NOx | SOx |
| 2010 | 3.70 | 2.3 | 32 | 1,351 | 840 | 11,680 |
| 2020 | 7.00 | 4.4 | 61 | 2,555 | 1,606 | 22,265 |

Potential Benefit to the I-710 Corridor Communities - Substantial

The reduction of emissions from auxiliary engines will provide significant reductions in PM and NOx in the I-710 Corridor. As noted above, the CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles), where 53,000 people live. Since the concentration of diesel PM in the air declines with distance from the sources, risk decreases the further one moves away from goods movement activity centers. However, the same report also found a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.¹⁵

Additionally, the report found that ships using diesel engines at dock while hotelling were the largest contributor to emissions at the ports. While ships in transit produce a

¹⁵ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the “CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach” released in October, 2005.

substantial portion of total port-related diesel PM, they did not produce a comparable cancer risk because these emissions are released off-shore and dispersed over a very wide area. Even so, the CAAP reports that OGVs produce 59 percent of the SPBP's total annual PM emissions, 36 percent of the SPBP's total annual NOx emissions, and 90 percent of the SPBP's total annual SOx emissions.¹⁶

Although proposals to provide shore power to hotelling vessels will eliminate any emission reductions from the use of low sulfur MDO and MGO while the vessel is berthed, this measure will substantially reduce emissions from ships as they transit and maneuver in California waters.

Costs

Cost to Ports: Not Applicable

Cost to Industry: The typical cargo vessel operator will incur additional charges of approximately \$20,000 per company per year, while passenger cruise companies will have an added annual cost of about \$2 million per company. Ship retrofits will be required that cost between \$100,000 and \$500,000 per vessel. Costs to individual business may vary widely from this average based on the number of vessels visiting California ports and the frequency of their visits. CARB estimates range from \$3,400 annually (for a single California port visit) to \$1 million (for a company with 300 California port visits). These estimates account for fuel and capital costs assuming the average cost differential between residual fuels and distillates is \$1,750 - \$2,730 per day while in California waters and ports. These estimates do not account for growth.

Cost to State: Short-term program administration costs can be conducted with existing CARB resources.

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<http://www.arb.ca.gov/regact/marine2005/marine2005.htm>

¹⁶ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Regulation Title

Commercial Harbor Craft Regulation

Responsible Agency

California Air Resources Board

Description

Regulation will reduce emissions from commercial harbor craft such as tugs, tows, ferries and fishing vessels through engine retrofits and repowers, as well as regulations on fuel type. Vessels would be required to repower Tier 0 vessels to a Tier 2 or cleaner, depending upon what is available.¹⁷ This measure excludes recreational marine craft and ocean-going vessels.

Status

Public workshops occurring in 2007. Measure expected to be implemented in 2009.

Annual Emissions Reductions

Not yet quantified.

Potential Benefit to the I-710 Corridor Communities - Substantial

As noted above, the CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles), The same report also found a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.¹⁸

The CAAP estimates that emissions from commercial harbor craft vessels represent 11 percent of total PM emissions and 13 percent of total NOx emissions from the SPBPs.¹⁹ While it is difficult to estimate community benefits without emissions quantifications, the proximity of the ports to communities in the southern portion of the I-710 Corridor increases the likelihood that improvements in marine emissions will have a positive impact on air quality in these neighborhoods. The air quality impact on I-710 communities that are further from the harbor, however, is uncertain.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

¹⁷ A repower is the replacement of an existing engine with a newer engine.

¹⁸ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the "CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach" released in October, 2005.

¹⁹ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Contact

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<http://arb.ca.gov/msprog/offroad/marinevess/harborcraft.htm>

Regulation Title

Shore Power for Ocean-Going Vessels

Responsible Agency

California Air Resources Board

Description

This measure requires that ocean-going vessels (OGVs) use shore power (connecting to electrical power at the dock) in lieu of auxiliary engines while hotelling. [Note: This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H5-c.]

Status

To be presented to Board in late 2007.

Annual Emissions Reductions

Not yet quantified.

Potential Benefit to the I-710 Corridor Communities - Substantial

The reduction of emissions during hotelling will provide significant reductions in PM and NOx in the I-710 Corridor. As noted above, the CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles), where 53,000 people live. The same report also found a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.²⁰

Additionally, the report found that the largest contributors to cancer risk ships using diesel engines at dock while hotelling. While ships in transit produce a substantial portion of total port-related diesel PM, they did not produce a comparable cancer risk because these emissions are released off-shore and dispersed over a very wide area. OGVs produce 59 percent of the SPBP's total annual PM emissions, 36 percent of the Ports' total annual NOx emissions, and 90 percent of the SPBP's total annual SOx emissions.²¹

Costs

The cost effectiveness of cold ironing is dependent upon a number of factors, including number of ships making multiple annual visits to the same terminal, length of berthing time and the power demand required by the ships.

Cost to Ports: The Ports will likely need to invest in extensive infrastructure improvements in electrical capacity and shore power dock stations. The infrastructure

²⁰ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the "CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach" released in October, 2005.

²¹ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

costs vary widely from terminal to terminal. The largest portion of the cost is the modifications to the electrical infrastructure and the availability and proximity of power varies widely between ports. Preliminary pricing estimates from CARB indicate the average cost for providing shore-side infrastructure without additional shore-side transformers is about \$3.5 million per terminal. CARB estimates the cost for a shore-side transformer and associated equipment to be an additional \$1.5 million per berth.

Cost to Industry: Industry will have to develop on-ship infrastructure including a transformer. CARB estimates that the cost to retrofit a ship with an on-board transformer is about \$500,000 and the cost to retrofit a ship without an on-board transformer is about \$1.5 million per ship.²²

Cost to State: Not Available

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Manager of the Program Assistance Section
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<http://www.arb.ca.gov/ports/shorepower/shorepower.htm>

²² <http://www.arb.ca.gov/ports/shorepower/report.pdf>, p. IV-6

Regulation Title

Regulation to Establish Allowable Speeds for Ocean Going Vessels in Coastal Waters

Responsible Agency

California Air Resources Board

Description

The implementation of this measure is on hold until the CARB can assess the emission reduction results from the other OGV measures that have recently been implemented such as the rules governing fuels being used in main and auxiliary engines. The need for a Vessel Speed Reduction measure will be evaluated after the effectiveness of these measures has been assessed. CARB did not provide a timeline for this evaluation, however, the measure regulating main engine fuel standards is not set to be heard by the board until 4th quarter 2007.

Status

On hold

Annual Emissions Reductions

Not yet quantified

Potential Benefit to the I-710 Corridor Communities - Unknown

Unknown

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

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Emissions Evaluation Section
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Website

General Marine Vessel Website:
<http://www.arb.ca.gov/msprog/offroad/marinevess/marinevess.htm>

SECTION B
San Pedro Bay Ports
Clean Air Action Plan Measures

Regulation Title

Clean Air Action Plan
 SPBP HDV1 – Performance Standards for On-Road Heavy-Duty Trucks

Responsible Agency

San Pedro Bay Ports

Description

By the end of 2011, all trucks calling at the ports frequently or semi-frequently will be required to meet or be cleaner than the EPA 2007 on-road PM emissions standards (0.01 g/bhp-hr for PM) and be the cleanest available NOx at the time of replacement or retrofit. This measure is directed at the approximately 16,800 port trucks that make 80 percent of the calls on marine terminals. For planning purposes, the CAAP proposes an implementation scenario which would replace 5,311 trucks with new diesel-fueled vehicles, 5,311 trucks with new alternative fuel vehicles, and retrofit the balance (6,178 trucks) with verified diesel emission control systems. This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H2-c.

Status

Measure approved by Ports of Los Angeles and Long Beach in November, 2006. Program specifics for the entire program have not, as of this writing, yet been made public. SPBP staff are working on the details. The alternative fuel truck component has been initiated, with the publication of an RFP for \$22 million for LNG trucks. Proposals were due on April 6th, and are being evaluated by Port staff.

Annual Emissions Reductions

| | | |
|----------------------|-------------------------|-----------------------|
| PM 782 TPY | NOx 6,417 TPY | SOx 2.5 TPY |
|----------------------|-------------------------|-----------------------|

These are the emission reductions that will result when the measure is completely implemented by July 1, 2011. Emission reductions will increase annually until the full 2011 reductions are met.

Potential Benefit to the I-710 Corridor Communities - Substantial

Within five years the trucks that make most of the trips to the marine terminals will be replaced with much cleaner vehicles or will be equipped with devices that reduce PM emissions by 85 percent and NOx emissions by 25 percent. Since many of these trucks use the I-I-710 corridor, the emission reductions from this measure will definitely improve air quality in the I-710 Corridor study area. The development and implementation of this measure should continue to be monitored and include the evaluation of additional measures to accelerate the deployment and use of the cleanest trucks in I-710 Corridor communities.

Costs

Cost to Ports: The cost of the scenario being studied by the SPBPs for implementation is \$1.8 billion. These costs are divided between the three proposed elements, shown below:

| Program Element | No. of Trucks | Total Cost |
|------------------------|---------------|------------------|
| Replacement w/Diesel | 5,311 | \$ 687,774,500 |
| Replacement w/Alt Fuel | 5,311 | \$ 120,471,000 |
| Retrofit | 6,178 | \$ 1,001,123,500 |
| Total | 16,800 | \$ 1,809,369,000 |

The cost assumption for a new LNG truck is approximately \$188,500/truck (\$185,000 Replacement Incentive for new LNG truck, \$1,300 Automated Vehicle Locator (AVL) installation, \$2,200 Administration costs). The cost assumption for a diesel truck replacement is \$129,500/truck (\$126,000 Replacement Incentive for new cleaner diesel truck, \$1,300 AVL installation, \$2,200 administration costs). The cost for the installation of a emission control device is \$19,500 (\$15,500 for the retrofit, \$1,300 for the AVL, \$2,200 for administration and \$500 for a program participation incentive).

The SPBPs and the SCAQMD have allocated \$202 million for the implementation of this measure over the next five fiscal years (thru FY 2010/11). This leaves approximately \$1.6 billion of the total cost of the measure to be raised from other sources. The SPBPs are considering a number of different possible sources for the balance, including obtaining a portion of the \$1 billion provided for in the recent Proposition 1B bond, implementing a dirty truck fee, securing a portion of the funds from the possible passage of a container fee, or requiring a portion of the cost to be paid for by truck owners. As of this writing, it is not clear from where the funds to pay for the implementation of this measure will come.

Cost to Industry: As of this writing, the cost to industry has not been determined. There are a number of ways that industry may be billed for the costs of this measure, some of which were mentioned above. Trucks that do not meet prescribed emission standards could be charged a “dirty truck” fee per entry in to the marine terminals. Truck owners could be required to pay a portion of the cost of a replacement truck or the installation of a retrofit device. The cost of a container fee would likely be passed through to the beneficial cargo owner. These decisions have not been determined or finalized.

Cost to State: Again, the cost to the taxpayer of the implementation of this measure is not clear. Certainly, if the SPBPs are successful in obtaining all or a portion of the \$1 billion provided for in Proposition 1B for goods movement related air quality programs, the state can provide significant funding for this program.

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Website

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Regulation Title

Clean Air Action Plan
SPBP-HDV2 - Alternative Fuel Infrastructure for Heavy-Duty Natural Gas Vehicles

Responsible Agency

San Pedro Bay Ports

Description

In order to support the deployment and operations of alternative fuel port trucks called for in SPBP CAAP Measure HDV1, this measure provides for the development of an alternative fuel refueling and central maintenance facility, jointly owned by both ports, and located on Terminal Island.

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006. The SPBPs issued an RFP for a contractor to develop this project in February 2007. As of this writing, only one proposal was submitted and it is being evaluated by SPBP staff.

Annual Emissions Reductions

Not applicable. This measure provides for supporting infrastructure, and contributes to the ability of SPBP Measure HDV1 to generate its emission reductions.

Potential Benefit to the I-710 Corridor Communities - Moderate

This measure will support SPBP HDV1 and should be monitored by community groups as a secondary priority.

Costs

Cost to Ports: \$4 million as incentive funding. A large portion of this value, however, is being provided in-kind.

Cost to Industry: The RFP was developed so that the winning bidder will have to invest capital in the development of the fueling and maintenance facility. As proposals are being evaluated at this time, the cost to industry has not yet been determined.

Cost to State: Not Applicable

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Regulation Title

Clean Air Action Plan
SPBP-OGV1 - OGV Vessel Speed Reduction (VSR)

Responsible Agency

San Pedro Bay Ports

Description

This measure requires that 100 percent of the OGVs that visit the SPBPs must comply with the VSR requirement 20 nautical miles (nm) from Point Fermin, with the prospect of expanding the measure to 40 nm from Point Fermin.

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006. The VSR measure is now being implemented. The extension to 40 nm will be implemented after the appropriate infrastructure is installed, which is projected to be some time in 2008.

Annual Emissions Reductions

| |
|-----------------------------|
| NOx |
| 1,721 TPY @ 20 nm 2006-2011 |
| 3292 TPY @ 40 nm 2010-2011 |

There are no PM reductions under SPBP-OGV 1 as it was created as a NOx control measure. At the time of the CAAP publication, Port staff was uncertain if the measure achieved PM reductions. It is believed now that PM reductions are indeed achieved, however, those reductions have not been quantified.

Potential Benefit to the I-710 Corridor Communities - Moderate

The reduction of emissions during hotelling will provide significant reductions in PM and NOx in the I-710 Corridor. As noted above, the CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles), where 53,000 people live. The same report also found a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.²³

Additionally, the report found that the largest contributors to cancer risk ships using diesel engines at dock while hotelling. While ships in transit produce a substantial portion of total port-related diesel PM, they did not produce a comparable cancer risk because these emissions are released off-shore and dispersed over a very wide area. Even so, OGVs produce 59 percent of the SPBP's total annual PM emissions, 36

²³ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the "CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach" released in October, 2005.

percent of the Ports' total annual NOx emissions, and 90 percent of the SPBP's total annual SOx emissions.²⁴

Cost

Cost to Ports: \$22,700,000 for port incentive funding for the needed upgrades to the Marine Exchange radar system, administrative costs and the incentive funding offered by the Port of Long Beach.

Cost to Industry: Not Available

Cost to State: Not Available

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²⁴ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Regulation Title

Clean Air Action Plan
 SPBP-OGV2 - Reduction of At-Berth OGV Emissions

Responsible Agency

San Pedro Bay Ports

Description

This measure mandates the use of shore power to reduce hotelling emissions at all container terminals and cruise terminals in the Port of Los Angeles in five years and all container terminals and one crude oil terminal in the Port of Long Beach within five to ten years. It also calls for the exploration of alternative emission reduction technologies for hotelling OGVs within the Technology Advancement Program. [Note: This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H5-c and is similar to CARB measure Shore Power for Ocean-Going Vessels (see page 71).]

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006.

Annual Emissions Reductions

| | | |
|---------------------|-------------------------|-----------------------|
| PM 34 TPY | NOx 1,495 TPY | SOx 648 TPY |
|---------------------|-------------------------|-----------------------|

These are the emission reductions that will result when the measure is completely implemented by July 1, 2011. Emission reductions will increase annually until the full 2011 reductions are met.

Potential Benefit to the I-710 Corridor Communities - Substantial

The reduction of emissions during hotelling will provide significant reductions in PM and NOx in the I-710 Corridor. As noted in the similar CARB shore power regulation, the CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles and a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.²⁵ Additionally, the report found that the largest contributors to cancer risk are ships using diesel engines at dock while hotelling. While ships in transit produce a substantial portion of total port-related diesel PM, they did not produce a comparable cancer risk because these emissions are released off-shore and dispersed over a very wide area.

²⁵ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the "CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach" released in October, 2005.

The CAAP indicates that OGVs produce 59 percent of the SPBP's total annual PM emissions, 36 percent of the SPBP's total annual NOx emissions, and 90 percent of the SPBP's total annual SOx emissions.²⁶

Costs

As noted in the CARB shore power regulation, the cost effectiveness of cold ironing is dependent upon a number of factors, including number of ships making multiple annual visits to the same terminal, length of berthing time and the power demand required by the ships.

Cost to Ports: As noted in the CARB shore power regulation, the infrastructure costs are vary widely from terminal to terminal depending upon required modifications to the electrical infrastructure and the availability of power. The Port of Los Angeles estimates a total cost of \$49 million from 2006-2011 for infrastructure and incentive costs. The Port of Long Beach estimates a cost of \$72 million for infrastructure, line extension and container berths. The total cost for the measure for both ports over fiscal years 2006-2011 would equal \$121 million.²⁷

Cost to Industry: Not Available

Cost to State: Not Applicable

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http://www.portoflosangeles.org/DOC/REPORT_Clean_Air_Tech.pdf

²⁶ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

²⁷ http://www.portoflosangeles.org/DOC/REPORT_Clean_Air_Tech.pdf, p. 83

Regulation Title

Clean Air Action Plan
SPBP-OGV3 - OGV Auxiliary Engine Fuel Standards

Responsible Agency

San Pedro Bay Ports

Description

This measure establishes a fuel standard for fuel used in on-board auxiliary power units of ≤0.2 percent sulfur distillate or Marine Gas Oil equivalent reduction. This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H5-d, and is similar to CARB measure Ocean-Going Vessel Auxiliary Engines (see page 18)].

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006.

Annual Emissions Reductions

| | | |
|--------------------|----------------------|----------------------|
| PM 4 TPY | NOx 17 TPY | SOx 29 TPY |
|--------------------|----------------------|----------------------|

These are the emission reductions that will result when the measure is completely implemented by July 1, 2011. Emission reductions will increase annually until the full 2011 reductions are met.

Potential Benefit to the I-710 Corridor Communities - Substantial

The reduction of emissions from auxiliary engines will provide significant reductions in PM and NOx in the I-710 Corridor. As noted in the similar CARB shore power regulation, the CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles and a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.²⁸ Additionally, the report found that the largest contributors to cancer risk are ships using diesel engines at dock while hotelling. While ships in transit produce a substantial portion of total port-related diesel PM, they did not produce a comparable cancer risk because these emissions are released off-shore and dispersed over a very wide area. Even so, the CAAP indicates that OGVs produce 59 percent of the SPBP’s total annual PM emissions, 36 percent of the SPBP’s total annual NOx emissions, and 90 percent of the SPBP’s total annual SOx emissions.²⁹

²⁸ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the “CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach” released in October, 2005.

²⁹ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Costs

Cost to Ports: No cost to CAAP partners as they have made a decision not to subsidize the higher-cost, lower sulfur fuels. Thus, the cost to the ports for this measure is limited to meeting with fuel providers and shipping lines and verifying the use of the fuels.

Cost to Industry: Not available in CAAP report, however, estimates were made for the CARB rule.

Cost to State: Not Applicable

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Regulation Title

Clean Air Action Plan
SPBP-OGV4 - OGV Main Engine Fuel Standards

Responsible Agency

San Pedro Bay Ports

Description

This measure establishes a fuel standard for fuel used when ships are arriving or departing San Pedro Bay of ≤ 0.2 percent sulfur distillate or Marine Gas Oil equivalent reduction. [Note: This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H5-d, and is similar to CARB measure Ocean-Going Vessel Main Engine Rule (see page 17).]

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006.

Annual Emissions Reductions

| | | |
|-----------------------|------------------------|--------------------------|
| PM 295 tons | NOx 379 tons | SOx 2,056 tons |
|-----------------------|------------------------|--------------------------|

These are the emission reductions that will result when the measure is completely implemented by July 1, 2011. Emission reductions will increase annually until the full 2011 reductions are met.

Potential Benefit to the I-710 Corridor Communities - Substantial

The reduction of emissions from auxiliary engines will provide significant reductions in PM and NOx in the I-710 Corridor. As noted in the similar CARB shore power regulation, the CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles and a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.³⁰ Additionally, the report found that the largest contributors to cancer risk are ships using diesel engines at dock while hotelling. While ships in transit produce a substantial portion of total port-related diesel PM, they did not produce a comparable cancer risk because these emissions are released off-shore and dispersed over a very wide area.

Even so, the CAAP indicates that OGVs produce 59 percent of the SPBP's total annual PM emissions, 36 percent of the SPBP's total annual NOx emissions, and 90 percent of the SPBP's total annual SOx emissions.³¹

³⁰ A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the "CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach" released in October, 2005.

³¹ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Costs

Cost to Ports: No cost to CAAP partners.

Cost to Industry: Not Available

Cost to State: Not Available

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Regulation Title

Clean Air Action Plan
SPBP-OGV5 - OGV Main and Auxiliary Engine Emissions Improvements

Description

This measure provides research money for the development of new technologies that reduce emissions from both APUs and main engines. Resources will be spent through the Technology Advancement Program. The first innovation which will be supported and validated through OGV4 will be slide valve technology from ship engine manufacturer MAN B&W.

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006.

Annual Emissions Reductions

| | |
|----------------------|------------------------|
| PM 115 TPY | NOx 1138 TPY |
|----------------------|------------------------|

These are the emission reductions that will result when the measure is completely implemented by July 1, 2011. Emission reductions will increase annually until the full 2011 reductions are met.

Potential Benefit to the I-710 Corridor Communities - Moderate

This is primarily a research measure, so the emission reduction benefit of the technologies that may emerge from this effort are not known at this time. The emission reductions cited above are from the implementation of the slide valve technology. These emission reductions will benefit the I-710 Corridor communities, but the benefit is not a great as several of the other measures discussed herein.

Costs

Cost to Ports: The CAAP projects a budget of \$15 million for port-related emission reduction research.

Cost to Industry: Not Available

Cost to State: Not Available

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Regulation Title

Clean Air Action Plan
SPBP-CHE1 - Performance Standards for Cargo Handling Equipment

Responsible Agency

San Pedro Bay Ports

Description

This measure would require that, beginning in 2007, all CHE purchases will be required to have either the cleanest available NOx alternative fueled engine or the cleanest available NOx diesel fueled engine. If there are no engines available that meet this standard, then terminal operators must buy the cleanest available engine and install the best available VDECS.

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006.

Annual Emissions Reductions

| | |
|----------------------|------------------------|
| PM 11 tons | NOx 376 tons |
|----------------------|------------------------|

These are the emission reductions that will result when the measure is completely implemented by July 1, 2011. Emission reductions will increase annually until the full 2011 reductions are met.

Potential Benefit to the I-710 Corridor Communities - Substantial

The CARB *Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles), where 53,000 people live. Since the concentration of diesel PM in the air declines with distance from the sources, risk decreases the further one moves away from goods movement activity centers. However, the same report also found a 50 per one million elevated cancer risk more than 15 miles from the SPBPs. The CAAP states that CHE is the second largest contributor to SPBP emissions with diesel engines from OGV's being the first.³² CHE generates 14 percent of the total SPBP PM emissions and 12 percent of total NOx emissions.³³ Emission reductions at these sites will help reduce I-710 Corridors communities' exposure to toxic diesel exhaust and will help the region reduce precursors to ozone-forming chemicals.

³² A link to this report can be found at: http://www.arb.ca.gov/planning/gmerp/march21plan/march22_plan.doc. This report cites data from the "CARB Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach" released in October, 2005.

³³ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Costs

Cost to Ports: No cost to CAAP Partners

Cost to Industry: Not Available. Industry will be required to purchase new CHE, which presumably will be more expensive as newer, cleaner engines become available.

Cost to State: Not Applicable

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Regulation Title

Clean Air Action Plan
SPBP-HC1 - Performance Standards for Harbor Craft

Responsible Agency

San Pedro Bay Ports

Description

Measure would require that by the end of the 2nd year of the CAAP, all SPBP harbor craft will meet EPA Tier 2 standard for harbor craft or equivalent reductions. By the 5th year of the CAAP, all previously repowered SPBP harbor craft will be retrofitted with the most effective CARB verified NOx and PM emission reduction devices. When Tier 3 marine engines become available, within five years all SPBP harbor craft will be repowered with the new engines. All tugs will use shore power while berthed.

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006. This measure is similar to CARB's harbor craft measure on page 69.

Annual Emissions Reductions

Not yet quantified

Potential Benefit to the I-710 Corridor Communities - Substantial

As noted above, the *CARB Emission Reduction Plan for Ports and Goods Movement* (2006) cites that there is a potential cancer risk increase of over 500 in one million in the adjacent 2,500 acres to the SPBPs (approximately four square miles), The same report also found a 50 per one million elevated cancer risk more than 15 miles from the SPBPs.

The CAAP estimates that emissions from commercial harbor craft vessels represent 11 percent of total PM emissions from the SPBPs.³⁴ While it is difficult to estimate community benefits without emissions quantifications, the proximity of the ports to communities in the southern portion of the I-710 Corridor increases the likelihood that improvements in marine emissions will have a positive impact on air quality in these neighborhoods. The air quality impact on I-710 communities that are further from the harbor, however, is uncertain.

Costs

Cost to Ports: No cost to CAAP Partners.

Cost to Industry: Not Available

Cost to State: Not Applicable

³⁴ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

Contact

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Kevin Maggay,
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Port of Los Angeles,
(310) 732-3947

Website

http://www.portoflosangeles.org/DOC/REPORT_Clean_Air_Tech.pdf

Regulation Title

Clean Air Action Plan
SPBP-RL1 - PHL Rail Switch Engine Modernization

Responsible Agency

San Pedro Bay Ports

Description

This measure would require that, by 2008, all existing switch engines in the Ports will be replaced with cleaner engines and will use emulsified fuels as available or other equivalently clean alternative diesel fuels. Additionally, any new switch engine acquired after the initial replacement must meet even cleaner standards All switch engines will have a 15-minute idle limiting device installed and operational. Lastly, Pacific Harbor Lines will conduct tests with switchers equipped with diesel emission control devices, LNG locomotives, or hybrid locomotives. If the demonstration of the technology is successful, other engines will be retrofitted with the cleanest available device. [Note: This measure addresses one of the suggestions put forth in the Tier 2 Report, specifically Recommendation H3-e.]

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006.

Annual Emissions Reductions

| | | |
|--------------------|-----------------------|-----------------------|
| PM 3 TPY | NOx 163 TPY | SOx 0.2 TPY |
|--------------------|-----------------------|-----------------------|

These are the emission reductions that will result each fiscal year from 2006-2011.

Potential Benefit to the I-710 Corridor Communities - Moderate

Although port emissions do travel inland, this measure will deal with only a segment of the locomotive population that operates in the SPBPs. Rail locomotives produce just six percent of the SPBP’s total annual PM emissions, 13 percent of the NOx emissions and two percent of the SOx emissions.³⁵ The total emission reduction from this measure is small in comparison to others outlined herein. The benefit should be more significant for those communities nearest to the ports.

Costs

Cost to Ports: \$21 million for each purchase of less-polluting rail locomotives.

Cost to Industry: Not Available

Cost to State: Not Applicable

³⁵ http://www.portoflosangeles.org/DOC/CAAP_Overview_Final.pdf, p. 8

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Website

http://www.portoflosangeles.org/DOC/REPORT_Clean_Air_Tech.pdf

Regulation Title

Clean Air Action Plan
SPBP-RL2 - Existing Class 1 Railroad Operations

Description

This measure would require that, by 2011, all diesel-powered Class 1 switcher and helper locomotives entering port facilities will be 90 percent controlled for PM and NOx and will have 15-minute idle restriction devices installed. After Jan. 1, 2007, all locomotives will be required to use ultra low sulfur diesel fuel. Additionally, starting in 2012 and fully implemented by 2014, the fleet average for Class 1 long haul locomotives calling on Port property will be Tier 3 equivalent (either Tier 3 engines or tier 2 equipped with diesel particulate filters (DPF) or selective catalytic reduction (SCR)).

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006.

Annual Emissions Reductions

Not yet quantified.

Potential Benefit to the I-710 Corridor Communities - Substantial

Unlike CAAP Measure RL1, this measure would apply to locomotives that operate outside of the SPBPs. These locomotives are likely to operate throughout the I-710 Corridor. Thus, the emissions benefits of this measure are more likely to be felt by I-710 Corridor communities.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

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Website

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Regulation Title

Clean Air Action Plan
SPBP-RL3- New and Redeveloped Rail Yards

Responsible Agency

San Pedro Bay Ports

Description

This measure, which focused on new or redeveloped rail yards on SPBPs property, would require the cleanest available technology for switcher, helper and long haul locomotives; “green-container” transport systems; idling shut off devices; idling exhaust hoods; ULSD or alternative fuels and clean CHE and HDVs. [Note: This measure addresses two of the suggestions put forth in the Tier 2 Report, specifically Recommendations H3-e and H5-f.]

Status

Measure approved by Ports of Los Angeles and Long Beach in November 2006.

Annual Emissions Reductions

Not yet quantified.

Potential Benefit to the I-710 Corridor Communities – Potentially Substantial

This measure would require that the two proposed intermodal facilities, which are located on a sliver of land adjacent to the Los Angeles River and which are as far north as the 405 Freeway, to implement far-reaching emission reduction programs. Although these emission reductions have not been quantified, the measures described in CAAP Measure RL3 would significantly reduce the air quality impact of the proposed rail yards.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

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SECTION C

Tier 2 Committee Report Measures

Regulation Title

I-710 Corridor Tier 2 Report
H1 a-c: Air Quality Improvements - Air Quality Improvement Action Plan

Responsible Agency

Gateway Cities Council of Governments

Description

Establish a baseline of current levels of pollution, identify level of air quality impacts from increasing truck, rail and shipping and determine costs of health care that can be traced to pollution encountered by corridor community as a result of construction.

Status

Propose for this measure to be evaluated for inclusion in the AQAP.

Annual Emissions Reductions

As this recommendation proposes a list of subjects for study, there will be no direct emission reductions from its implementation. The information that would be provided, however, would be extremely useful for the development of emission reduction measures.

Potential Benefit to the I-710 Corridor Communities – Potentially Substantial

The development of a study that established the baseline for the current level of pollution for I-710 Corridor stakeholders in their efforts to ensure that the adverse health and social impacts of the air pollution are addressed. *[Note: As of this writing, the two ports are finalizing a study of existing levels of pollution in the ports and AQMD has similar information included in its Draft 2007 AQAP.]*

Costs.

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Gateway Cities Council of Governments
(562) 663-6850

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H1-d: Air Quality Improvements: Global Trade Expansion Impact Assessment

Responsible Agency

Gateway Cities Council of Governments

Description

Perform studies to determine direct and indirect health and other economic costs on corridor communities and the region. Determine how other ports are addressing health and air quality issues.

Status

Propose for this measure to be evaluated for inclusion in the AQAP.

Annual Emissions Reductions

Not yet quantified

Potential Benefit to the I-710 Corridor Communities - None

This recommendation proposes a study to determine social and economic impacts on the I-710 Corridor communities of the expansion of global trade. Although the information may be useful to I-710 Corridor stakeholders, it will not result, either directly or indirectly, in any emission reductions.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Gateway Cities Council of Governments
(562) 663-6850

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H2-a: Air Quality Improvements - Truck Inspection

Responsible Agency

Gateway Cities Council of Governments

Description

This measure would require the increased use of enforcement and inspections to control emissions from on-road heavy-duty vehicles. CARB is partially addressing this issue through its On-Road Heavy-Duty Diesel Engine In-Use Compliance Program, but that measure only addresses MY 2007 and later heavy-duty engines. Gateway Cities is performing a truck enforcement and inspection site feasibility study which is to be completed in 2007.

Status

Propose for this measure to be evaluated for inclusion in the AQAP.

Annual Emissions Reductions

Not yet quantified.

Potential Benefit to the I-710 Corridor Communities – Potentially Substantial

Although this measure is beginning to be addressed, the potential emission reduction of polluting trucks from the I-710 Corridor could have a dramatic impact on air quality in the region based on inspection and enforcement.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Gateway Cities Council of Governments
(562) 663-6850

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H2 b-c: Air Quality Improvements - Port Emissions Reduction

Responsible Agency

Los Angeles Metropolitan Transportation Agency
Caltrans
Gateway Cities Council of Governments

Description

Recommendation H2b sought to condition project approval on air quality improvements in Port operations. Recommendation H2c encourages the development and expansion of fleet modernization clean air programs.

Status

Action is already being taken to fulfill these proposals. The SPBPs have proposed and begun to implement the CAAP, which is designed to reduce pollution from port activities by 50 percent in five years. Evidence of improvement in the emission inventory from the SPBPs should be evident in a year or two, well before the earliest possible time for the environmental study to be completed for the I-710 Corridor improvement project. In addition, not only has the Gateway Cities Fleet Modernization program continued to be effective (replacing over 550 port trucks), several other fleet modernization programs have been initiated or are in the process of being developed, including the SCAQMD Fleet Modernization program and the SPBP's Clean Trucks Program, which targets the replacement and/or retrofit of nearly 17,000 port trucks.

Annual Emissions Reductions

Not yet quantified.

Potential Benefit to the I-710 Corridor Communities - Substantial

CAAP Measure HDV1 demonstrates the emission reduction value of expanding efforts to modernize the port truck fleet. In addition, delaying approval of the I-710 Corridor project until such time as there are demonstrable air quality improvements in port operations will put pressure on public agencies to achieve these reductions. This increases the likelihood that the residents of the I-710 Corridor communities will see improvements in air quality before the freeway is allowed to expand.

Costs

Cost to Ports: CAAP Measure HDV1 outlines the projected cost to the SPBPs of their fleet modernization program.

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Gateway Cities Council of Governments
(562) 663-6850

Website

http://www.gatewaycoq.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H2-d: Air Quality Improvements - Container Fees

Responsible Agency

Gateway Cities Council of Governments

Description

Impose container fees to generate revenue to enhance corridor communities and address impacts. This recommendation has been addressed in recent legislation in the California Senate. Alan Lowenthal recently introduced SB 974 which would impose container fees on cargo which has been supported by the Gateway Cities Policy Board.

Status

Container fee legislation was approved by the Legislature in 2006, but the bill was vetoed by the Governor. The concept has been reintroduced in the current legislative session. In addition, the Clean Trucks Program proposed by the SPBPs contains several container fees, the proceeds of which will be used for environmental mitigation and infrastructure improvements.

Annual Emissions Reductions

A container fee would not result in any direct emission reductions. It could, however, provide much needed resources to implement other elements of the strategy to clean up emissions from port-related activities.

Potential Benefit to the I-710 Corridor Communities –Substantial

As was discussed above, the CAAP is projected to cost \$2.1 billion. The SPBPs and the SCAQMD have budgeted just over \$400 million for CAAP implementation. A container fee could raise hundreds of millions of dollars every year (approximately \$500 million from the two ports). These resources would make up 70 percent of the current shortfall in the CAAP's projected \$2.1 billion budget. Thus, the passage of the container fee could enable much of the emission reduction strategy developed by the SPBPs, which could have a substantial beneficial impact on the I-710 Corridor.

Costs

Cost to Ports: There would be no cost to the SPBPs from this measure, except for any administrative expenditure needed to manage the funds that would come to the Ports from the collected fees.

Cost to Industry: As shown above, the potential cost to industry would be approximately \$500 million annually, assuming the same container throughput as in 2006.

Cost to State: Not Available

Contact

Senator Alan Lowenthal
(916) 651-4027

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H2-e & f: Air Quality Improvements - Quantify Emissions

Responsible Agency

South Coast Air Quality Management District

Description

Install permanent monitoring stations to measure emissions levels. Develop and implement improved air quality monitoring techniques.

Status

Discussions would need to be initiated with the SCAQMD regarding the development of a work plan to make this recommendation a reality. It is recommended that this measure be evaluated for inclusion in the AQAP.

Annual Emissions Reductions

This measure would not result in emission reductions, but would provide crucial data to help alert local residents to the pollutants to which they are being exposed.

Potential Benefit to the I-710 Corridor Communities - Substantial

As mentioned, this recommended strategy would provide more air quality information for the I-710 Corridor.

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not known at this time.

Contact

Arun Roychowdhury
Program Supervisor
South Coast Air Quality Management District
(909) 396-2268

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H3 a-f: Diesel Emissions Reduction - Alternative Fuels

Responsible Agency

Yet to be determined.

Description

Support policies that encourage use of alternative fuels; discourage use of out-of-state fuels; subject all trucks to local, state and federal standards and require trucks using I-710 to use alternative fuels or equivalent pollution controls. Require railroad locomotives servicing the two ports to use alternative fuels or pollution controls which achieve equal or better results; request the Alameda Corridor Authority to prepare a plan to electrify locomotives involved in its operations.

Status

Propose for this measure to be evaluated for inclusion in the AQAP

Annual Emissions Reductions

Not yet quantified.

Potential Benefit to the I-710 Corridor Communities - Substantial

Please see benefits to similar CARB and CAAP programs.

Cost

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Gateway Cities Council of Governments
(562) 663-6850

Website

http://www.gatewaycoq.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report

H4 a-c: Environmental Improvements - Emissions Reduction and Mitigation

Responsible Agency

Yet to be determined.

Description

Retrofit schools, homes and parks to increase protection from noise and pollution; identify locations and develop facilities for one-stop truck inspection; provide incentives for business to accept off-peak deliveries.

Status

Propose for this measure to be evaluated for inclusion in the AQAP.

Annual Emissions Reductions

Not yet quantified. The recommendation to retrofit schools for noise pollution would not reduce emissions. Shifting truck traffic to off-peak has the benefit of shifting emission to evening hours, which reduces the prospect that NOx emissions will contribute to smog formation. It also has the benefit of reducing truck traffic during peak hours, which should help reduce congestion and thus have a positive impact on air quality. The benefit of truck inspections was discussed above (Tier 2 Recommendation H2-a). *[Note: The Ports have already implemented PierPass which has shifted significant volumes of truck traffic to evening hours. Also, Gateway Cities has initiated a truck enforcement/inspection site feasibility study.]*

Potential Benefit to the I-710 Corridor Communities - Moderate

Reducing the impact of noise pollution is a very positive objective, but it will primarily benefit those closest to the freeway. Truck inspection program may help, but it is uncertain how pollution inspection and enforcement could affect truck repairs or retrofits. Shifting deliveries to off-peak may reduce congestion during the day, but may have other impacts such as increasing noise levels during evening hours.

Costs

Cost to Ports: Not Available

Cost to Industry: Cost for OffPeak program is 160 million paid for by Beneficial Cargo Owners (BCOs)

Cost to State: Not Applicable

Contact

Gateway Cities Council of Governments, (562) 663-6850

or

PierPass

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report

H4 d-f: Diesel Emissions Reduction - Truck emissions reduction programs

Responsible Agency

San Pedro Bay Ports

California Air Resources Board

South Coast Air Quality Management District

Gateway Cities Council of Governments

Description

Create programs to assist truck owners with engine/equipment upgrades; restrict Port generated traffic on I-710 until emission mitigation is in place; provide landscaping to improve air quality.

Status

As noted, several programs currently exist to provide truck owners with resources to pay for retrofits or truck replacements. These include the Gateway Cities Fleet Modernization Program, the SCAQMD Fleet Modernization, and the SPBPs retrofit program. In addition, the SPBPs are in the process of developing a program to retrofit or replace 16,800 port trucks. As for the two other elements of this recommendation, these should be included in the work plan for the AQAP.

Annual Emissions Reductions

The emission reduction benefit for landscaping and for restricting port truck traffic on the I-710 freeway have not yet been quantified. The emission reduction benefit for truck retrofit and replacement programs has been discussed extensively above.

Potential Benefit to the I-710 Corridor Communities - Substantial

As noted, truck retrofit and replacement can yield tremendous air quality benefits. In addition, modernizing these trucks will help make them safer and more fuel efficient, two additional benefits. Increasing the use of landscaping as a mitigation measure would certainly improve community aesthetics, and may have the added benefit of reducing the urban heat island effect.

Costs

Cost to Ports: \$1-2 billion.

Cost to Industry: Not available but could be substantial.

Cost to State: Unknown.

Contact

Gateway Cities Council of Governments, (562) 663-6850

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H5 a-b: Port Air Quality – Alternative Fuels

Responsible Agency

San Pedro Bay Ports
California Air Resource Board

Description

Require plans for terminal operation electrification and require electrification of port gantry cranes. *[Note: both CARB and the CAAP have measures requiring shore side power for ocean-going vessels.]*

Status

Gantry cranes, for the most part, have already been electrified. In regards to terminal electrification, both the CAAP and the CARB have measures requiring the use of shore power for hotelling ships (see pages 71 and 82 above). Additional opportunities for terminal electrification should be explored in the AQAP.

Annual Emissions Reductions

Since gantry crane electrification has already taken place, there will be little emission reductions achieved from this recommendation. The emission reduction benefit of providing shore power has been discussed on pages 71 and 82. The electrification of other terminal operations, particularly of cargo handling equipment, may result in additional emission reductions. This should be included in the AQAP.

Potential Benefit to the I-710 Corridor Communities - Substantial

If it is possible to increase the use of electricity in lieu of diesel powered CHE in terminal operations, this would significantly reduce emission from these sources, and would hence provide a significant benefit to the I-710 Corridor. This benefit would be even greater if these electrified CHE technologies could then be used in intermodal rail yards and warehouse operations.

Costs

Cost to Ports: See the discussion of shore power.

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Gateway Cities Council of Governments, (562) 663-6850

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H5 c-e: Port Air Quality – Ship Operations

Responsible Agency

Gateway Cities Council of Governments

Description

Require ships to shut down diesel engines and use shore electric power; require ports to expedite development of pollution control for ships; make low sulfur diesel fuel use mandatory. [Note: CARB has implemented a measure regulating fuels used in auxiliary engine and is drafting a measure to regulate fuel used in main engines.]

Status

Both the CAAP and CARB have proposed and implemented measures to make low sulfur diesel fuel use mandatory for both auxiliary and main engines (see pages 65 – 68 and pages 84 – 87) and to require vessels to use shore power while berthed (see pages 71 and 82). The SPBPs are also working to develop pollution control for ocean going vessels (see the discussion of the development of slide valve technology on page 88). In addition, the Port of Long Beach is assisting with the demonstration of the Advanced Maritime Emission Control System (AMECS), an emission control technology that treats the emission from OGV stacks, at Pier G.

Annual Emissions Reductions

The emission reduction benefit of shore power and of using low sulfur fuels have been discussed extensively above (see pages referenced above). The emission reduction benefit of the slide valve technology and the AMECS should be evaluated in the AQAP, as should the emission reduction benefit of other ship pollution control systems.

Potential Benefit to the I-710 Corridor Communities - Substantial

See CARB main and auxiliary measures on pages 65 – 68, 71, 82 and 84 – 87.

Costs

Cost to Ports: The costs of shore power have been discussed above, as have the costs of using low sulfur fuel. The costs of slide valve technology and AMECS are not available.

Cost to Industry: The costs of shore power have been discussed above, as have the costs of using low sulfur fuel. The costs of slide valve technology and AMECS are not available.

Cost to State: Not Available

Contact

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Stationary Sources Division
(916) 327-2957

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Regulation Title

I-710 Corridor Tier 2 Report
H5 f-g: Port Air Quality – Emissions Control

Responsible Agency

Gateway Cities Council of Governments

Description

Include trucks, trains and rail yards, marine vessels and port equipment in clean air initiative; require terminal equipment at the ports to operate on alternative fuels as defined by CARB. As an alternative, require all engines to be equipped with pollution control technology which achieves equal or lesser emissions.

Status

Propose for this measure to be evaluated for inclusion in the AQAP

Annual Emissions Reductions

Not yet quantified

Potential Benefit to the I-710 Corridor Communities - Substantial

Other sections of this report had discussed implementing these types of air pollution programs.

Costs

Cost to Ports: See other relevant sections of this report

Cost to Industry: See other relevant sections of this report

Cost to State: See other relevant sections of this report

Contact

Gateway Cities Council of Governments
(562) 663-6850

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

Title of Measure

I-710 Corridor Tier 2 Report
H5 h: Port Air Quality – Funding

Responsible Agency

Gateway Cities Council of Governments

Description

Establish a shipper funded emissions lowering system. This would be a fund that shippers pay into which provides rebates to those who adopt the use of clean engines for vehicles.

Status

Propose for this measure to be evaluated for inclusion in the AQAP

Annual Emissions Reductions

Not yet quantified

Potential Benefit to the I-710 Corridor Communities - Moderate

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Gateway Cities Council of Governments, (562) 663-6850

Website

http://www.gatewaycog.org/I710/Tier_2_Report_v1-small-Final.pdf

SECTION D

Alameda Corridor Transportation Authority Measures

Title of Program

Virtual Container Yard (VCY)

Responsible Agency

Alameda Corridor Transportation Authority in partnership with the Ports of Los Angeles and Long Beach

Description

More than twenty percent of the truck trips to and from the ports involve empty containers. When implemented, this program will match empty containers with potential users by allowing a carrier to post the location of an empty container online.

Status

The project partners are currently testing preliminary posting with the plans to be operational by mid-summer 2007.

Annual Emissions Reductions

Not Available

Potential Benefit to the I-710 Corridor Communities - Substantial

Costs

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Alameda Corridor Transportation Authority, (310) 233-7480

Website

Not Available

Title of Program

Extended Gate Hours

Responsible Agency

Alameda Corridor Transportation Authority and PierPASS

Description

OffPeak is the off-peak hours program implemented by PierPASS, a not for profit company created by terminal operators at the Ports of Los Angeles and Long Beach. The program provides a financial incentive for cargo owners to move freight during off-peak hours such as at night and on weekends in order to reduce truck traffic and pollution.

Status

Implemented in July 2005

Annual Emissions Reductions

Not Available

Potential Benefit to the I-710 Corridor Communities – Moderate

Keeping gates open longer helps to ease congestion during peak hours only if there is an incentive for truckers and beneficial cargo owners to use the off-peak gates. The OffPeak program, for instance, has shifted over 35% of the container moves to off peak hours, which helps to relieve congestion during peak operating times. This helps to reduce air pollution by reducing queuing at marine terminal gates, alleviates freeway congestion, and contributes to faster turn-around time. In the long run, however, as more and more containers arrive at the SPBPs, the benefits of this measure will begin to wane.

Cost

Cost to Ports: Terminals have increased staff but cost is borne by beneficial cargo owners.

Cost to Industry: \$160 million paid for by Beneficial Cargo Owners (BCOs)

Cost to State: Not Applicable

Contact

Alameda Corridor Transportation Authority
(310) 233-7480

Or

PierPASS

Website

www.pierpass.org

Title of Program

Increased On-Dock Rail

Responsible Agency

Alameda Corridor Transportation Authority

Description

On-dock is any rail yard located within the marine terminal. On-dock rail yards are currently handling over 20 percent of Port cargo. Due to cargo growth, it has been proposed that existing yards be expanded and new yards be developed over the next 20 years.

Status

Both the Ports of Los Angeles and Long Beach are evaluating the development of additional intermodal facilities on Terminal Island. Other on-dock expansion and improvement projects are also being considered.

Annual Emissions Reductions

Not available

Potential Benefit to the I-710 Corridor Communities - Substantial

Shifting more containers to rail decreases the use of trucks from the movement of cargo. Evidence indicates that rail has less emissions per cargo mile than trucks, primarily because up to 200 containers can be transported in a single train. Moving containers directly from ship to rail eliminates the intermediary truck trip and maximizes efficiency in container movement.

Cost

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Ports of Los Angeles and Long Beach
Alameda Corridor Transportation Authority
(310) 233-7480

Website

http://www.portoflosangeles.org/DOC/REPORT_SPB_Rail_Study_ES.pdf

Title of Program

Increased Near Dock Rail Yards

Responsible Agency

Alameda Corridor Transportation Authority

Description

Near-dock is defined as a rail yard located within five miles of the marine terminals. These yards can combine cargo from multiple marine terminals and utilize trains that efficiently transport cargo throughout the U.S. The only existing near-dock rail yard for the SPBP is the Intermodal Container Transfer Facility (ICTF) which is operated by Union Pacific Railroad.

Status

The Ports are evaluating a proposal for the near-dock facility operated by BNSF called the Southern California International Gateway (SCIG) project, as well as a proposal for the expansion of the existing ICTF facility.

Annual Emissions Reductions

Not Available

Potential Benefit to the I-710 Corridor Communities – Moderate to Substantial

Shifting more containers to rail decreases the use of trucks for the movement of cargo. Evidence indicates that rail has less emissions per cargo mile than trucks, primarily because up to 200 containers can be transported in a single train. However, near dock rail still must transport containers from the marine terminals to the near dock rail facility, a movement that is still done by trucks. Thus, there are still diesel emissions from these operations. Near dock rail facilities can do more, however, to use cleaner trucks than other operators. Because the distance from dock to near dock rail is so short, the prospect for using alternative fuel, electric or electric hybrid truck technology is enhanced. The benefits of near dock rail would be much more significant if operators were to use alternative cargo transport technology or trucks equipped with engines that were cleaner than the EPA 2010 standard.

Cost

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Ports of Los Angeles and Long Beach
Alameda Corridor Transportation Authority
(310) 233-7480

Website

http://www.portoflosangeles.org/DOC/REPORT_SPB_Rail_Study_ES.pdf

Title of Program

Shuttle Trains

Responsible Agency

Alameda Corridor Transportation Authority

Description

This program would shuttle containers on rail between the Ports of Los Angeles and Long Beach as well as the Inland Empire for a six to nine month demonstration project. The concept is that containers would be moved by rail to the Inland Empire intermodal facility. The containers would be trucked the remaining distance to warehouses for outbound distribution. Empties would be transported back to the inland rail center and transported via rail back to the ports.

Status

Under consideration

Annual Emissions Reductions

Not Available

Potential Benefit to the I-710 Corridor Communities - Unknown

Cost

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

Alameda Corridor Transportation Authority, (310) 233-7480

Website

SECTION E
South Coast Air Quality Management District

Title of Program

Chairman's Clean Port Initiative

Responsible Agency

South Coast Air Quality Management District

Description

In 2005, Chairman Burke announced the Clean Port Initiative which consisted of seven action items:

Action Item 1: Clean Port Summit between the AQMD and the SPBP.

Action Item 2: Called on Ports to accelerate efforts. If ports do not act aggressively, AQMD staff will develop regulations to control port pollution.

Action Item 3: AQMD staff will prepare a monthly report to the public describing environmental impact reports and other CEQA documents for projects related to goods movement.

Action Item 4: AQMD staff will work with SPBP to conduct air quality monitoring both inside and outside of the port terminals.

Action Item 5: Asked USEPA to adopt strict emission standards for marine vessels. If EPA fails to do so, AQMD will take action to force EPA to take aggressive action.

Action Item 6: AQMD staff will develop a proposal for corresponding emission reduction measures in Southern California and at the Asian ports and discuss implementation at an international summit.

Action Item 7: Called on state legislature to adopt a shipping container fee or some other mechanism to fund pollution clean up at the ports.

Status

Unable to confirm

Annual Emissions Reductions

Not Available

Potential Benefit to the I-710 Corridor Communities - Limited

Most of the action items listed above would not result in measureable emission reductions.

Cost

Cost to Ports: Not Available

Cost to Industry: Not Available

Cost to State: Not Available

Contact

South Coast Air Quality Management District, (909) 396-2000

Website

http://www.aqmd.gov/phone/imp_phone_numbers.html

V. Summary and Recommended Next Steps

5a. Summary

This report is not the AQAP. The AQAP will require a much greater depth of analysis than was possible at this level of commitment. This report was a preliminary step in the development of the AQAP. It summarizes the process that resulted in the creation of the AQAP and the expectations that stakeholders have for the document. It reviews the enormous progress that has been made in goods movement and diesel related air quality policy since the summer of 2004. It identifies the limitations of this approach, but makes suggestions on how to maximize the opportunity that is presented by this unprecedented exercise.

Some have insisted that the AQAP must stand on its own – be separate and distinct from the numerous other air quality programs which are being pursued by several public agencies. This is not logical. The measures listed in Chapter IV are a profound step for air quality improvement in the Ports and the I-710 Corridor. Taken together, these policies and programs represent the most far reaching, comprehensive, and promising strategy ever proposed to reduce emissions from diesel fueled engines and the goods movement sector. If successfully implemented these air quality measures will have a significant and positive impact on the quality of life in the I-710 Corridor. Thus, the first best thing that the stakeholders in the environmental health of the I-710 Corridor can do is work for the successful implementation of the measures in Chapter IV.

Neither GCCOG nor the I-710 Corridor cities should try to replicate the programs listed in Chapter IV. How then can the AQAP add to the effort to clean the air in Southeastern Los Angeles County? One obvious purpose for the AQAP would be to provide the I-710 Corridor cities with a blueprint to maximize the benefits of these policies in their communities. This is best accomplished by working to make sure that the owners and operators of assets that pollute are among the first to comply with new regulations, that they comply ahead of schedule (if possible), and that they be encouraged to develop ways to go beyond their requirements. This should be one of the primary missions of the AQAP – to provide guidance to I-710 Corridor cities on how they can ensure that the benefits of the measures in Chapter IV accrue to their communities, and do so rapidly.

Another purpose of the AQAP can be to identify gaps in air quality programs. Once identified, these gaps can be addressed. In most instances, I-710 stakeholders will have to advocate the development of policies by SCAQMD, CARB or EPA to address any deficiencies that are discovered. In some instances, however, there may be actions that can be taken at the local level to help alleviate the problems. The AQAP should provide a venue to pursue either approach.

Finally, the AQAP can help mobilize stakeholders to work on behalf of the goals of the Plan. Given the 14 cities and dozens of stakeholders who participated in the I-710 Major Corridor Study, the potential for meaningful action exists. But the stakeholders must be kept apprised of the issues, they must be provided information to help them

make decisions, and they must be organized to make decisions and allocate resources. The AQAP can be that mechanism.

In order to successfully tackle the job of developing an AQAP, it will be necessary to better understand the nature of the problem in the I-710 Corridor. Enhancing air quality monitoring in the community is essential for both understanding the severity of the impacts as well as developing effective responses. The data that is collected by an expanded monitoring program can be used to support policies and craft programs to ensure that the I-710 corridor communities maximize their opportunities for cleaner air.

To develop a useful air quality action plan, the GCCOG will need to better understand the impacts that the 44 programs listed in Chapter IV will have on I-710 Corridor communities. As discussed, although there are many measures, the benefits will be unevenly distributed. For those measures in Chapter IV for which an emission reduction benefit has been quantified, the reductions in I-710 Corridor communities have not been differentiated. Thus, the data needed to prioritize measures for their impact on the I-710 Corridor needs to be developed. This should be a goal of the next phase of the AQAP.

This document is intended to be a blueprint for the next phase of the AQAP. In the pages that follow, the reader will find a number of recommendations for how to proceed with the AQAP. Section 5b presents the recommendations for early action which representatives of the environmental community would like the Program Committee to consider. Section 5c presents recommendations from GCCOG for the scope of work for the next phase of development of the AQAP. Finally, Section 5d makes a projection for the budget of the next step in the AQAP.

5b. Proposed Early Action Items Recommendations from the Environmental Community

In the process of developing the scope of work for the AQAP, representatives from the environmental community indicated a strong desire to see the immediate development and implementation of several air quality improvement measures. They expressed concern that more than 30 months had elapsed since the publication of the Tier 2 report and the draft of this report, and had hoped that more progress would have been made in the interim on the development and implementation of emission reduction measures. As summarized in Chapter III, these representatives of environmental organizations, many of which were represented on the Tier 2 Committee, indicated that they were disappointed that the process in which they were now being asked to participate would not result in near term air quality improvement measures.

Although a good deal of time has passed since the publication of the Tier 2 report and the adoption of the LPS, much has transpired during this period. The GCCOG was required to develop a “Mini-study” of alternatives for the I-5/I-710 intersection which were acceptable to the communities of East Los Angeles and the City of Commerce. This study was one of the conditions of the Major Corridor Study approval. Some of the

community-based alternatives required additional modeling and engineering analysis which prolonged this process. Additionally, the process to create the multi-agency funding partnership that has assumed the responsibility of moving the 710 project to the next phase took months as each of the six respective governing boards took action to commit to the project and program funding

Nonetheless, given the lapse of time, the interest in tangible signs of progress is understandable. Fortunately, the interim period has seen unprecedented activity in the arena of air quality regulations and programs, particularly in the area of goods movement. For some, the advent of an aggressive agenda on air quality regulation, much of which will dramatically impact the 710 Corridor, is a welcome development. For others, the fact that many of these measures are not yet approved, may take many years to implement and may not necessarily target communities along the 710 corridor, are reasons to accelerate the development of the AQAP.

Through several discussions with key environmental representatives, it was clear that some members of this community wanted to see this report make recommendations for immediate actions that could be pursued to help improve air quality in the 710 Corridor while the bulk of the AQAP was being developed. Most of these “early action” recommendations listed in this section were based on the concepts that were originally proposed in the Tier 2 report. Some, however, emerged from meetings during the AQAP development process as presenting some additional opportunities for near term progress towards the goal of the AQAP and which support other strategies already listed in the Tier 2 report.

This section of the report presents a list of nine early action recommendations that environmental community representatives would like to propose to the I-710 Project Committee (PC) and Executive Committee (EC) for immediate action. They urge the committees to adopt and implement these recommendations prior to the full development of the AQAP in order to provide near term air quality benefits in the 710 Corridor. These measures present a variety of opportunities, some of which will result in direct emission reductions while others may provide the foundation for the development and implementation of a successful AQAP. The recommendations for early action items presented herein were selected by the representatives of the environmental community primarily because they believe that these measures provide I-710 Corridor communities with actions that can be taken now to improve air quality in Study Area.

This chapter of the report summarizes the recommendations for early action items developed from the meetings with the environmental community discussed above. These recommendations will be presented to the I-710 Project Committee and Executive Committee for review and comment. If the I-710 Project Committee and the I-710 Corridor communities concur and decide to proceed with all or some of these recommendations, then the GCCOG and other stakeholders can begin to implement these near term air quality improvement measures.

Early Action Item #1: Develop funding plan for the AQAP

The recommendations that were listed in the Tier 2 report provided for an ambitious agenda of activities to improve air quality in the I-710 Corridor Communities. Resources will be essential to ensuring the development and the implementation of the AQAP. As of this writing, however, no money has been allocated for the AQAP other than the initial \$75,000 which was authorized by LACMTA in June 2006. Representatives of environmental groups in 710 Corridor do not want to wait another two years from the issuance of this document to obtain resources for the advancement of the AQAP.

Thus, in order to advance the AQAP, the environmental community recommends that a plan be put together to fund the development and implementation of the AQAP. This plan should identify all of the potential sources of funds for AQAP implementation, should include a timeline for the implementation of the funding plan, and should stipulate milestones for achievement.

The I-710 Corridor cities should participate in financing the air quality planning that they advocate. Such participation not only would help launch the AQAP project, but will also demonstrate the interest and commitment of each of the 710 Corridor cities to the goals of the AQAP. It could also provide early resources for the development of the AQAP while the other, more substantial sources of funds undertake their processes for authorization and appropriations. It is recommended that each city authorize an appropriate a sum to be set aside for the development and implementation of these early action items and the AQAP. Each city and the County of Los Angeles would provide an allocation beginning with the next fiscal year. These funds should be used by the GCCOG to prepare the AQAP or implement early action recommendations.

The total amount of resources set aside by the 710 Corridor cities would then be matched on an annual basis by both the LACMTA and the SCAQMD.

If this early action item recommendations is supported by the I-710 PC and EC, the GCCOG could develop model language to be used by each city for a resolution authorizing the set aside of resources for these recommendations.

Early Action Item #2: 710 Corridor Communities to Maximize Use of Cleaner Transportation Technology

The Tier 2 Report contains several measures which encourage the use of cleaner alternatives to diesel in heavy-duty vehicles or which seek to support the use of emission control equipment on these same vehicles. It is important that, if the cities of the 710 Corridor are going to seek to maximize the use of the fuels and technologies on vehicles that operate in Corridor, it is recommended by the environmental groups that they lead by example. Early Action Item #2 recommends the use of the best available emission reduction technology to reduce emissions from vehicle fleets, most importantly municipally-owned diesel fueled medium and heavy-duty vehicles.

The two most effective immediate steps that can be taken to reduce emissions from diesel fueled heavy-duty vehicles are to either replace them with alternative fuel vehicles or to equip their existing fleet with emission control devices. To facilitate the purchase of cleaner, alternative fuel vehicles, I-710 cities could create a buyers' consortium that will pool the purchasing power of the public and private sectors to maximize the number of clean-fueled vehicles in Gateway Cities based fleets.

Early Action Item #3: Support Legislation Establishing Container Fees

In both 2005 and 2006, legislation was introduced in Sacramento to create a fee on each import container that enters the San Pedro Bay Ports and use the collected funds to help pay for port security, infrastructure improvements and the environmental impacts of goods movement. This legislation, introduced both times by Senator Alan Lowenthal, passed both houses of the state legislature in 2006 as SB 927, but was vetoed by Governor Schwarzenegger. Last month, the container fee bill was reintroduced by Senator Lowenthal (as SB 974), addressing many of the issues that were raised by the Governor in his September 2006 veto message.

The latest version of the container fee legislation provides for a charge of \$30 per TEU to be billed to the owner of container cargo that moves through the Ports of Long Beach, Los Angeles, and Oakland. The money that would be collected by the San Pedro Bay Ports would be deposited equally into one of two accounts, the Southern California Congestion Relief Trust Fund and the Southern California Port Mitigation Relief Trust Fund. Resources collected from users of the Port of Oakland would be deposited in duplicate trust funds for Northern California. The Southern California Congestion Relief Trust Fund would be used for funding projects that improve the flow and efficiency of container cargo moving to and from the San Pedro Bay Ports, while the Port Mitigation Relief Trust Fund would be used to mitigate environmental pollution caused by the movement of cargo to and from the Ports. The Congestion Fund would be administered by the California Transportation Commission, while the Mitigation Fund would be run by the Air Resources Board. Using 2006 cargo statistics, the bill would raise over \$325 million annually for Southern California transportation and environmental improvement projects.

These resources will be critical for both the facility improvements outlined in the 710 Major Corridor Study and the achievement of the objectives of the Air Quality Action Plan. 710 Corridor communities must work to ensure the passage of this legislation as SB 974 includes strong provisions that the resources will be used to reduce emissions on impacted Corridor communities and to improve air quality monitoring and reporting in the area. GCCOG Board of Directors took the first step towards supporting this critical legislation with the "Support" vote taken at their April 4, 2007 meeting. Environmental stakeholders further recommend that I-710 Corridor cities work with the author to ensure that projects recommended for funding from this program are generated locally and give priority to projects that are most impacted by cargo movement in and out of the ports.

To achieve these goals, 710 Corridor stakeholders should be asked to support early action item #3 by:

- having their city councils pass resolutions in support of SB 974.
- directing their representatives in Sacramento to work with Senator Lowenthal, his co-authors and the Governor’s office to support the passage of SB 974.
- seeking statements of support for the legislation from all State Senators and Assemblymembers who represent communities in the 710 Corridor.
- seeking statements of support for the legislation from non-governmental community organizations, neighborhood associations and other civic organizations.

If this early action item is approved by the Community Advisory Committees, the GCCOG asked to draft a model resolution of support that can be used by 710 Corridor cities as a template for their own resolutions.

Early Action Item #4: Formal Establishment of a Partnership Between the 710 Corridor Communities and the SCAQMD for the Improvement of the Air Quality Monitoring System in the 710 Corridor

Air quality in the 710 Corridor is widely believed to be among the worst in the South Coast Air Basin, which is the most polluted air basin the United States. Numerous studies have recently pointed to the deleterious health impacts of air in the 710 Corridor communities, including the SCAQMD’s Multiple Air Toxics Exposure Studies (MATES I, II and III) and ARB’s Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach. Unfortunately, many of the conclusions in these studies are extrapolated from relatively limited sets of air quality monitoring data that have been collected from a handful of monitoring stations scattered throughout the South Coast Air Basin. For instance, for the groundbreaking MATES II study, data was collected from only three air quality monitoring stations in the I-710 Corridor (North Long Beach, Compton and Huntington Park) and one nearby (Wilmington).

The 710 Corridor communities have made previous recommendations that the SCAQMD increase the number of air quality monitoring stations located in the 710 Corridor.

This fourth recommendation for early action involves the development of a partnership between the 710 Corridor communities and the SCAQMD for the development of a new and expanded air quality monitoring system in the I-710 Corridor. It is recommended that the I-710 Project Committee establish a committee of representatives from the I-710 Corridor communities to work with the SCAQMD to develop and implement a program to expand and improve air quality monitoring in the Corridor including the deployment of mobile monitoring equipment. The 710 Corridor Air Quality Monitoring

Committee would work with the SCAQMD to identify appropriate sites for new monitoring stations, develop protocols for reporting the data collected, and encourage the use of the data among atmospheric scientists and public health specialists for studies which can help policy makers develop better policies to reduce public exposure to harmful pollutants. The 710 Corridor Air Quality Monitoring Committee and the SCAQMD would establish a timeline for the deployment of new monitoring stations and a budget for the purchase and maintenance of these air quality monitoring assets. The SCAQMD would also designate a senior staff member to take the lead on the development of this new program.

Early Action Item #5: Development and Passage of Local Ordinances to Restrict Truck Idling

It has been well established that emissions from diesel fueled vehicles pose a public health risk in the 710 Corridor communities. The MATES II study established that 71 percent of the toxic air contaminants in local air comes from diesel particulates. According to other studies, in some places along the 710 Corridor, the cancer risk from exposure to toxic air contaminants is as high as 1 in 2000.

A significant source of diesel emissions comes when trucks idle while parked or queued at distribution facilities. This practice, which is not necessary for the operation of most heavy-duty diesel trucks, comes from driver habits established at a time when diesel engines were difficult to restart once they had been turned off. Since the 1994 model year, however, virtually all diesel engines have electronic controls, which enable the big rigs to restart instantly from either a warm or cold start. With contemporary diesel engines, all idling does is waste fuel and pollute the air.

In recognition of the health threat posed by unnecessary idling, various efforts were initiated to limit truck idling. The State of California has passed legislation and developed regulations to control heavy duty vehicle idling. In 2002, then-Assemblymember Alan Lowenthal authored legislation which placed limits on idling outside of marine terminals. AB 2650 put the onus on the operators of the marine terminals, making them responsible for preventing trucks that were queued outside of their gates from idling longer than 30 minutes. Enforcement of the regulation was placed on the local air districts, and the penalty for violations was \$250 per occurrence. In 2005, Senator Lowenthal introduced SB 761, which would make it a violation for marine terminals to operate in a manner that causes trucks that call on their terminal to exceed 60 minutes in total turn time while conducting business at the terminal.

In October 2005 the ARB approved new regulations which limit idling in new and in-use sleeper berth equipped heavy-duty trucks. The regulation requires 2008 and newer model year heavy-duty diesel engines to be equipped with an engine shutdown system that automatically shuts down the engine after five minutes of idling or optionally meets a stringent oxides of nitrogen idling emission standard. For in-use trucks, the requirement is for operators of both in-state and out-of-state registered sleeper berth equipped trucks to manually shut down their engine when idling more than five minutes

at any location within California beginning in 2008. The ARB has also established idle limits for school buses.

Although these regulations are now in place, there are significant gaps both in enforcement and in the regulations themselves. For instance, the legislation passed by Senator Lowenthal only applies to trucks waiting at marine terminals in the ports, and does not apply to trucks waiting at warehouses and cargo distribution facilities. The regulations approved by ARB, on the other hand, apply only to trucks that are equipped with sleeper cabs and not to those with day cabs. In order for truck idling to be addressed in a more comprehensive fashion in the I-710 Corridor, either more stringent regulations would have to be promulgated in Sacramento or local governments would have to step forward and both pass regulations to limit truck idling and invest the resources that are necessary to enforce these ordinances.

In order to address these gaps in enforcement and legislation, this fifth early action item recommends that municipalities in the 710 Corridor pass ordinances to prohibit the idling of any diesel-fueled medium or heavy-duty vehicle for longer than five minutes at any time when that vehicle is within city limits. The ordinance could levy a \$250 fine that will be placed on the vehicle operator if the diesel truck that the driver is operating idles within city limits for five minutes or longer.

It should be noted that, in order to enforce this new municipal ordinance, the I-710 Corridor communities would have to commit to training local public safety officers in how to recognize idle limit violations and enforce anti-idling regulations. Environmental groups also recommend that local governments work to help educate truck operators and distribution facilities in their communities about the new anti-idling ordinances and the importance of complying with the new regulations. In order to provide for training and education programs, I-710 Corridor communities could draw upon the AQAP fund created in Early Action Item #1.

If Early Action Item #5 is approved by the PC, the GCCOG could take the lead and provide I-710 cities with a model ordinance. GCCOG would also work with the ARB, the SCAQMD and local law enforcement agencies on the development of training programs for public safety officers who would be responsible for enforcing the anti-idling ordinances. Finally, GCCOG would coordinate with local governments on the development of a Corridor-wide public and distribution facility education program, to ensure consistency and to maximize the efficient use of resources.

Early Action Item #6: Conditional Use Permits for New Warehouses and Distribution Facilities

The goods movement industry is one of the largest employers in Southern California. Business associated with the management and handling of cargo is one of the fastest growing segments of the region's economy. Whereas the industry is creating jobs for residents and providing tax revenue for local governments, it is also a source of much of the air pollution which is adversely affecting the health of these communities.

One of the reasons that diesel fueled trucks are a primary source of toxic air contaminants in 710 Corridor communities is that businesses in these communities are the destination of many trucks. Trucks not only make deliveries to business, but they are also visit warehouses and distribution facilities where cargo is transloaded i.e. where it is either broken down so that deliveries can be made to individual customers or where it is aggregated so that it can be shipped more easily to distant locations. The off-road equipment used to break down and organize the cargo and deliveries are also generally fueled by diesel. At present, there are few, if any, requirements placed on these facilities regarding their operations, the infrastructure that they must provide, how they manage the trucks that call on their warehouses, or the emissions of the off-road equipment used at these facilities to manage their cargo. In the absence of rules governing their development, these facilities will contribute to the inventory of toxic air contaminants that impact the I-710 Corridor communities.

In order to mitigate the public health and environmental impact, the environmental community recommends that I-710 Corridor communities adopt criteria for the issuance of conditional use permits on all new warehouse or freight distribution facilities that seek to be built in the region. These new conditions would be placed on any new permittee before the issuance of a permit to build is granted from the Planning or Building and Safety Departments. The environmental community recommends that each city adopt the following complimentary suite of new requirements which, if implemented together, will achieve significant relief for their communities:

- Idle restrictions. New permittees would be required to provide plans for how they will help the city enforce new idle restrictions on trucks that call on their facilities. Such plans would include demonstrating that the new permittee will monitor idling trucks at their facility and that the permittee has developed clear procedures to ensure that no truck idles for longer than five minutes while on their property or queued outside of their property for entry to their property.
- Provision of electrical outlets to plug in refrigerated trailer (reefer) units. New permittees would be required to include, in their building plans, designs for the installation of appropriate electrical infrastructure that would enable any truck carrying a reefer unit to plug that trailer in to the local electrical grid to power the refrigeration unit.
- Restrictions on the use of diesel power auxiliary power units. New permittees would be required to provide plans for how they will restrict the use of diesel fueled auxiliary power units (APUs) in both trucks and trailers that call on their facilities.
- Requirements for alternative fuel cargo handling equipment. New permittees would be required to show how they would incorporate electrical and low emission alternative fuel cargo handling equipment in to

their operations. Such equipment includes yard hostlers, fork lifts, reach stackers, and other equipment used to move trailers, containers, and cargo within the subject property.

- Provide for these conditions within the land use permit terms of any warehouse, distribution center, or big-box retail facility in the city.

The GCCOG could assist the local governments develop these conditions for the issuance of CUPs in 710 cities. 710 Corridor communities could also explore ways that they can apply or incentivize these and other permit restrictions on the operations of existing warehouses and distribution centers within their boundaries.

Early Action Item #7: Requirements on Construction Equipment Used in 710 Corridor Communities.

Another source of emissions in the South Coast Air Basin is construction equipment. Except in rare instances, construction equipment emissions are uncontrolled, i.e. there are no requirements that such equipment be equipped with emission control devices. Although in recent years the U.S. EPA has promulgated new emission standards for new off-road engines, it will take many years for these new requirements have an impact on air quality. Construction equipment, like other diesel-powered technology, can last in use for decades before it is retired, thus diminishing the impact of tightening emission standards on this generation of equipment.

There are a few examples already in place that outline of the kinds of requirements that can be placed on construction contractors. Legislation has been proposed at the state level that would create regulations supporting the use of the most recently manufactured construction equipment on state-financed projects. Another example is the Community Benefits Agreement that Los Angeles World Airport negotiated with a coalition of adjacent cities and community groups. These represent some of the mechanisms that can be used by 710 Corridor cities to address this source of air pollution in their communities.

In order to accelerate the introduction of cleaner technology in the I-710 Corridor communities, the environmental community recommends that cities establish requirements that companies performing construction in the region use only construction equipment with the cleanest available engines. These requirements would be placed in the language of RFPs that cities issue for work, or in permits that the cities issue for construction. If a city opts to establish a requirement, they could restrict the kinds of equipment that is used in their community to only those units that operate with an engine that meets the most stringent emission standard in effect at the time. For instance, if a contractor wanted to use a back-hoe in his operations with a 300hp engine, that engine would have to meet EPA's Tier 3 emission standard of 3.0 grams of NOx per brake horsepower hour and 0.15 grams of PM/bhp-hr, because this standard, which took effect in 2006, is the most stringent in effect at this time. Another approach that a contractor could take is to install the cleanest possible verified diesel emission

control systems on his construction equipment that is not already equipped with the cleanest available engines.

In another approach, I-710 Communities could develop regulations that require contractors bidding on projects in I-710 Corridor communities to provide plans for how they will reduce emissions from their diesel-fueled equipment. Such plans would describe what steps contractors will take to mitigate emissions from their construction equipment, or could require that contractors tell the city why they have been unable to implement such measures.

If this early action item is supported by the I-710, PC & EC, the SCAQMD and the GCCOG could work with I-710 Corridor communities to provide them with models for either ordinances that require contractors to use construction equipment with the latest model engines or programs that incentivize the use of such equipment.

Early Action Item #8: Plans to Reduce the Exposure of Sensitive Receptors to Diesel Exhaust.

Although exposure to diesel exhaust is not good for anybody, there are certain segments of the population for whom breathing pollution from diesel vehicles is especially damaging. These sensitive populations include children, seniors, and people with respiratory problems. Unfortunately, facilities where these sensitive populations congregate, such as schools, senior centers, clinics and hospitals, are often on or very near major transportation corridors. Recent studies have demonstrated that the incidence of asthma increases significantly the closer a child is to a freeway. Other studies have linked increased mortality to days where particulate pollution is particularly high. It is therefore important to limit the exposure of these sensitive receptors to diesel exhaust.

In order to reduce the contact of sensitive populations to diesel exhaust, the environmental community recommends that the 710 Corridor cities create and implement plans to that mitigate such exposure. Communities should make reducing exposure of children, seniors and other sensitive receptors to diesel exhaust an objective of their land use planning, zoning, transportation plans and other public policies. Such plans could include requirements that trucks be rerouted away from schools, senior centers, medical facilities, etc., the development of diesel truck-free zones, the development of standards for landscaping near such high priority facilities, the installation of double paned windows and air filtration devices on buildings containing sensitive populations, and other measures.

Where rerouting trucks or other polluting vehicles or changing land uses is not practical, the utilization of landscaping as a pollution mitigation should be investigated.

In addition, such ordinances should take into consideration the adverse health impacts of noise and vibration. Expansion of the use of sound walls could help alleviate some of these impacts.

The I-710 Corridor communities can work with the SCAQMD, LACMTA, SCAG and the GCCOG in order to evaluate measures that can be taken to achieve this public policy goal. Corridor communities could promulgate and pass resolutions which elevate this objective as a municipal priority. Planning and transportation departments can be asked to study the issue, and to develop plans to reduce, to the extent feasible, the exposure of sensitive populations to diesel exhaust.

Early Action Item #9: Policies to Encourage Communities to Buy Local

The I-710 Corridor communities are subject to high levels of air pollutants because of the volume of cargo that enters the San Pedro Bay Ports. If Americans consumed more locally produced products, then not only would it help the U.S. economy, but it would also have a positive impact on the amount of pollution caused by goods movement through the ports. It is recommended by the environmental group stakeholders that the I-710 Corridor cities pass resolutions establishing preferences for goods and services produced in Los Angeles County, in California, and in the United States. It is further recommended that any existing “buy local” ordinances be strengthened to include reports back to the council, milestones for achievement, and other measures to help enhance their effectiveness.

5c. Recommendations

This section includes a set of recommendations for the GCCOG Board of Directors to accept, review and forward to the I-710 Project Committee and I-710 Executive Committee for their review, consideration and direction. These recommendations are based on the interviews undertaken for the preparation of this study and our evaluation of how best to proceed with the development and implementation of an effective AQAP. These recommendations are followed by a description of a scope of work for the next phase of work on the AQAP (development and implementation), as well as an estimate of the budget for this work.

The recommendations are as follows:

- a. Approve the scope of work and budget and instruct GCCOG to proceed with the AQAP.
- b. Request that the GCCOG Board of Directors pursue funding for the development and implementation of the AQAP.
- c. Work with air agencies to establish additional air quality monitoring stations in the I-710 Corridor as soon as possible, as well as develop a protocol for reporting the information collected by these stations to the public.
- d. The AQAP should include, but not be limited to, the following elements:
 - (1) Report on status of all other air quality programs and reports and provide more detailed analysis.

- (2) Detailed analysis and quantification of the air quality benefit of all emission reduction programs and regulations that have substantial or moderate benefits for the I-710 communities based on updated baseline of current pollution levels.
 - (3) Develop a priority list of near-term air quality strategies that will be monitored twice a year for progress with specific status reports of time-lines, time-tables, funding, status, benefits and issues. This is an important element as 31 of 44 of the air quality strategies and programs outlined in this report have been approved or will be approved within the near-term time frame of five years.
 - (4) Develop actions that local communities can take to maximize air quality benefits of the near term air quality strategies identified in Chapter IV, including a cost-benefit analysis of these actions for I-710 cities.
 - (5) Develop monitoring program to “track” the progress of various air quality strategies and programs and report progress twice a year.
 - (6) Monitor Health Risk Assessments that are being prepared in the I-710 corridor and report results.
 - (7) Develop a subregional Health Risk Assessment to evaluate the public health benefit of the full implementation of the air quality measures to be included in the AQAP.
 - (8) Develop advocacy programs to assist other agencies obtain funding for air quality programs and regulations.
 - (9) Develop program for GCCOG to participate in air quality improvement programs (such as the Clean Trucks Program), where applicable.
- e. Address “Early Action Items” recommendations from environmental community representatives and forward those recommendations with support to the GCCOG for consideration for implementation and request GCCOG to work with local communities to implement the selected recommendations.

5d. Proposed Scope of Work for the AQAP

The next phase of the development of the AQAP should involve the development of a specific strategy for maximizing, in the I-710 Corridor, the air quality improvement potential of the measures outlined in Chapter 4. It should also entail the provision of support for the successful implementation of those early action items from Section 5b and the recommendations in Section 5c that are approved by the Project Committee. Finally, the AQAP should develop and obtain the approval of additional measures to address the gaps left by other public agencies in policies to improve air quality in the I-710 Corridor communities.

This section provides a draft of a proposed scope of work for the next phase of the development of the AQAP.

Task 1: Formalize the Scope of Work and Project Timeline and Develop a Request for Proposals to secure a contractor to do the work.

The GCCOG will need to secure the services of a contractor to perform the work for the next phase of development of the AQAP. Although this report provides a blueprint for the activities that this contractors should engage, it will still be necessary to draft and publish either a Request for Proposals (RFP) or a Request for Qualifications (RFQ) in order to select an appropriate contractor. Some of the sub tasks that would be involved include:

- GCCOG will draft the RFP/RFQ and provide this draft to the Project Committee for their review and approval. If an RFP, GCCOG will create a draft list of deliverables and a timeline for the achievement of milestones. If an RFQ, a draft list of deliverables and timeline will still need to be created to help direct the selected contractor.
- GCCOG will investigate partnering arrangements with other public agencies that could advance the development and implementation of the AQAP.
- GCCOG will collect comments from the Project Committee and integrate these comments in to the final draft RFP/RFQ.
- Once finalized, the RFP/RFQ will be published and applications accepted. GCCOG will work with the Project Committee to create a committee to evaluate applicants. Applicants' submissions will be reviewed, interviews will be conducted and recommendations will be formulated on the basis of selection criteria developed by GCCOG.
- Upon approval of the recommended contractor, contracts will be negotiated and the contractor will be retained to develop the AQAP.

Task 2: Coordination with GCCOG, Project Committee

It will be essential for the AQAP contractor to remain in close communication with GCCOG and the Project Committee regarding progress that is being made on the development of the AQAP. This coordination should involve:

- Bi-weekly conference calls with GCCOG;
- Quarterly meetings with GCCOG;
- Provide regular briefings on the status of the project;
- Quarterly reports on the status of the project;
- Meetings with key leadership on the Project Committee (2 a year).

Task 3: Analysis of Impact of Chapter 4 Air Quality Measures on the I-710 Corridor Communities

As discussed, a crucial aspect of the development of the AQAP will be a detailed analysis of the air quality impact of the measures that have been or will be implemented by the ARB, SCAQMD and SPBPs that are listed in Chapter 4 of this report. This analysis will focus on the extent to which the emission reductions that are attributable to these measures will accrue to the I-710 Corridor communities. This analysis will enable the contractor to evaluate the measures to determine which of these will have the most beneficial impact on the I-710 Corridor communities, which in turn will help the contractor and the stakeholders make decisions about which of these measures to prioritize for additional local work. Thus, this task will entail:

- A review of the measures in Chapter 4 and an evaluation of whether, in the interim period between the publication of this report and the beginning of the next phase of AQAP development, additional air quality measures have been proposed by thirdparties which should be included in this analysis;
- Meetings with SPBPs, CARB and SCAQMD on the development of appropriate protocols for the evaluation of the air quality benefits of these measures in the I-710 Corridor Communities. It will be important for the contractor to work with these agencies to ensure that all parties agree with the methodologies that are used to calculate the emission reductions of measures and to attribute a portion of those reductions to the I-710 Corridor communities.
- Development of framework for reporting the results of this analysis that will provide data in a manner most useful to the stakeholders in the I-710 program. The contractors should work with stakeholders to determine the framework and format that best suits the needs of those who will be using the information to make decisions.
- Performance of the analysis of third party air quality measures. This quantitative analysis should include an evaluation of the total air quality benefit of these measures as well as the benefit in the I-710 Corridor communities; it should include an analysis of the potential Greenhouse Gas emission impacts of these measures; it should sharpen the evaluation of the value of each of these measures to the I-710 Corridor communities (i.e. is the benefits substantial, moderate, limited, or none); it should analyze and determine timetables for results and it should include an cost effectiveness analysis of the measure, particularly as it pertains to emission reductions that will take place in the I-710 Corridor.
- The draft analysis of third party air quality measures should be distributed to selected peer reviewers, including key staff at local air quality public agencies, as well as to the stakeholders in the I-710 corridor for comment.

- Revisions, as appropriate, should be made by the contractor to the analysis of party air quality measures and the analysis should be finalized as a report of the contractor on the AQAP.

Task 4: Development of Strategy to Ensure third party Air Quality Measures Benefit I-710 Corridor Communities

The primary purpose of the analysis that is performed in Task 3 is to determine what, if any, steps I-710 Corridor cities can take to ensure that the air quality benefits of these measures accrue in their community. For instance, measures that provide a requirement that trucks be outfitted with diesel emission control devices may eventually bring emission reductions to the I-710 Corridor communities, but these reductions can both be accelerated and enhanced if local governments work to encourage early compliance. Similarly, if authorities establish new emission standards for off-road heavy duty equipment, I-710 Corridor cities can ensure that these reductions occur quickly in their communities by developing ordinances that require the use of the cleanest technology on construction projects within their jurisdiction. Conversely, there is little that I-710 Corridor communities can do to encourage owners of ocean going vessels to comply with speed reduction or lower sulfur fuel use requirements. However, the I-710 Corridor Communities can create an advocacy program to support these measures.

Thus, part of the purpose of the AQAP will be to identify opportunities to accelerate the implementation of these third party measures in I-710 Corridor communities and develop model policies that local governments can approve which would accomplish this objective. In order to achieve this, the contractors will need to implement the following scope of work:

- Work to prioritize third party measures, highlighting those which both maximize the benefit in the I-710 Corridor and for which cities can implement policies that would accelerate or enhance the implementation the measures in I-710 Corridor communities. Work with stakeholders to determine which measures should be prioritized for policy development, and for the development of timelines for implementation.
- Develop draft policies and programs that can be implemented by I-710 Corridor cities that would accelerate and/or enhance the effectiveness of third party air quality improvement measures in the I-710 Corridor.
- Evaluate the measures selected for cost effectiveness. It will be important for local decision makers to have information regarding which of the possible policies and programs that have been developed will result in the most local emission reduction for the investment.

Task 5: Development and Analysis of new Air Quality Measures for the I-710 Corridor Communities

Although it is clear that, if fully implemented as proposed, the measures that have been developed over the last three years by the state’s air quality regulators and the San Pedro Bay Ports will achieve substantial improvements in air quality, additional steps will have to be taken to reduce emissions of harmful air pollutants in order for the region to achieve health-based air quality standards. Although most of these as of yet undefined measures are likely to be developed and implemented by the air quality agencies, there may be actions that can be taken on the local level that can contribute to cleaning up I-710 Corridor.

This task focuses the contractor on the development of new air quality improvement measures that can be implemented by I-710 Corridor communities or which can be advocated by I-710 stakeholders among air quality regulators for quick adoption or implementation. Some of the tasks that would be involved in this scope of work include:

- Meet with air quality agencies, key I-710 Corridor stakeholders, and others to brainstorm ideas for local air quality improvement measures.
- Development of concepts for new air quality measures. Circulate draft new measures to air quality agencies and key I-710 Corridor stakeholders for review and comment. Working with key I-710 Corridor stakeholders, prioritize new air quality measures. Finalize measures to be examined in greater detail.
- Analysis of new air quality measures, including estimate for potential emission reduction, cost and cost effectiveness.
- Present results to the Project Committee.

Task 6: Development of a Health Risk Assessment

Health risk assessments are extremely useful tools for the evaluation of both existing public health threats as well as the potential benefit of future action. They can provide both policy makers and the general public with valuable information regarding which air quality improvement measures may yield the biggest reduction in risk to public health. It is therefore important to understand what the benefit will be to the I-710 Corridor communities of the many measures discussed in Chapter IV as well as any others that might be developed in the AQAP process.

This task focuses on the performance of a health risk assessment for the subregion that evaluates the reduction in public health risk of the AQAP. The task would include:

- The development of a methodology for assessing health risk, in accordance with guidelines from appropriate public agencies;

- The creation of a public input mechanism so that discrete localized risks can be identified and evaluated and so that effective programs can be developed to communicate the results of the study to the general public.
- The development of an appropriate emissions inventory that takes in to account the projected emission reductions from the air quality programs and regulations discussed herein and any others that may be developed and implemented as a result of the AQAP process;
- The development of an appropriate air dispersion model for the I-710 Corridor communities;
- Performance of the analysis and publication of the results.

Task 7: Support Implementation of Early Action Items

Section 5b provides nine recommendations from representatives of the environmental community for actions that I-710 Corridor stakeholders can take in the near term that advance the goals of the AQAP. These recommended actions will either reduce emissions directly or help prepare the community for the implementation of other important emission reduction policies.

The contractor will facilitate the implementation of those early action items which are approved by the Project Committee. This task entails:

- Working with local government to determine what support is needed to ensure the successful implementation of the approved early action items.
- Development of a plan to provide requested support, including a projected budget, menu of deliverables, and a timeline for implementation.

Task 8: Public Outreach & Communications

Central to the successful completion of this scope of work will be a program to educate and engage the public. Community participation and engagement must be encouraged for several important reasons. First, public support will be essential for the AQAP to be effective. Second, public involvement may yield ideas for emission reductions unique to the 710 Corridor. The contractor will need to maintain a public outreach program that both communicates information about the AQAP but which also encourages input from stakeholders and the community.

In order to maintain an effective public outreach effort, the scope of work should include:

- Development and maintenance of a comprehensive database of stakeholders in the I-710 Corridor AQAP. This database should include all individuals and

organizations that have participated at any time in the 710 Corridor process since the inception of the Major Corridor Study. Work with GCCOG and others to ensure that current and key community leaders are in the database.

- Develop multiple mechanisms for communicating with stakeholders regarding the AQAP. These could include, but not be limited to e-mail, newsletters, websites, periodic community presentations, and regular public briefings.
- Regular contact with key stakeholders to brief them on the process; including community & environmental leaders, elected officials, key agency personnel, members of the Project Committee, Executive Committee, LACMTA board, and others.
- Arrange public meetings in which community members may communicate their ideas and concerns to the AQAP development and implementation team.

5e. Proposed Budget for Development of AQAP

The scope of work described above will likely take three years to complete. A cursory analysis of the scope of work indicates a budget of between \$1.8 and \$2.2 million.

5f. Conclusions

This report is the initial step toward the development of the AQAP. It initiates the work plan that was given to the GCCOG in November 2004 with the approval of the LPS. In it GCCOG has presented the background of the I-710 Corridor modernization project and the genesis of the concept of the AQAP. In order to compensate for the time lag between the approval of the LPS and the initiation of the AQAP process, GCCOG reached out to stakeholders in the I-710 Corridor process to solicit their input regarding the future of the AQAP. Given the intensity of activity in port and goods movement related air quality policy in the last three years, the GCCOG has analyzed proposed measures and estimated their value to the goal of reducing air pollution in the I-710 Corridor.

It is important to repeat that, of these 44 measures that have been developed since the approval of the LPS, 31 have either been implemented already or will be in the near term. Thus, the entire landscape for air quality in the I-710 Corridor has shifted dramatically.

This report provides an overview of the projected effectiveness of planned near-term air quality improvement programs and policies in I-710 Corridor communities. It proposes several possible new air quality improvement strategies, and establishes guidelines for their analysis. It suggests that part of the strategy for improving air quality in I-710 Corridor communities is to facilitate and accelerate the implementation of the many air quality programs and policies that have been created in the last 30 months. It provides both a projected scope of work and a budget for the development of the full AQAP. It

recommends the development of a health risk assessment to evaluate the public health benefits of fully implementing all of the measures that were discussed herein. Finally, it identifies nine measures that representatives of the environmental community recommend for early action along with other recommendations to proceed with this AQAP.

Glossary of Terms

Air Quality Action Plan (AQAP) – Plan currently under development through the Gateway Cities Council of Governments to address the air quality impacts due to any expansion of the I-710 freeway. This plan is being developed with local community input and has emerged as a prerequisite for the modification and expansion of the I-710 Freeway before local communities will accept an increase in the freeway’s capacity.

Air Quality Management Plan (AQMP) – Clean air plans are the essential blueprints for action by regional air quality management districts. Every three years, the SCAQMD prepares an AQMP outlining its air quality improvement strategies and the impacts of addressing specific pollutants in specific geographic locales. Each iteration of the plan is an update of the previous plan and has a 20-year horizon.

Alameda Corridor Transportation Authority (ACTA) - A 20-mile railroad express line that connects the port of Long Beach and Los Angeles to the transcontinental rail network east of downtown Los Angeles. It is a series of bridges, underpasses, overpasses and street improvements that separate freight trains from street traffic and passenger trains, facilitating a more efficient transportation network.

Alternative Maritime Power (AMP) - Also referred to as “cold ironing,” is an alternative source of power for oceangoing vessels while at berth. Instead of running on diesel power while at berth, AMP-equipped ships “plug in” to shore side electrical power. Depending on the size of the ship, estimates are that AMP will reduce NOx by one ton and take more than half a ton of sulfur oxides (SOx) out of the air each day the ship is at berth and plugged in.

Automated Vehicle Locator (AVL) – devices installed in trucks purchased with the assistance of grant funds, such as the Gateway Cities Clean Air Program. The AVL allows the awarding agencies to monitor vehicle location to ensure that the trucks are operating within designated geographical boundaries, and therefore that the emissions benefits are accrued locally.

Auxiliary Power Unit (APU) – These systems generally consist of a small internal combustion engine (usually diesel) equipped with a generator and heat recovery system to provide electricity and heat to the truck cab even when the main engine is not in use. Auxiliary power units can help truck drivers comply with local idling ordinances, reduce emissions and noise, and save on the cost of truck fuel and maintenance. Although these units were designed to eliminate many of the harmful emissions associated with diesel truck idling, diesel-powered APUs themselves have associated emissions.

Beneficial Cargo Owner (BCO) – the owner or party responsible for a shipment of cargo. BCOs can include shippers, consignees or their agents.

Best Available Control Technology (BACT) – In order to reduce diesel particulate matter emissions from various mobile sources, the California Air Resources Board implemented a series of fleet rules requiring fleets to pursue one of several designated BACT options. BACT may include a repower, retrofit, or new vehicle purchase.

California Air Resources Board (CARB) – The state agency that regulates the air quality in California (air quality branch of the California Environmental Protection Agency.) Regulations made by the ARB are often stricter than those set by the federal government.

California Department of Transportation (Caltrans) - The state agency responsible for highway, bridge, and rail transportation planning, construction, and maintenance. Caltrans manages more than 45,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies.

Cargo Handling Equipment (CHE) - Cargo handling equipment includes the off-road vehicles and equipment used to transfer goods, and includes equipment such as yard trucks (hostlers), cranes, top handlers, side handlers, forklifts, and loaders just to name a few.

Clean Air Action Plan (CAAP) – A joint plan established by the San Pedro Bay Ports to reduce port-related goods movement emissions by 50% by 2011. The two ports intend to enforce the provisions of the plan through their role as landowners.

Diesel Particulate Trap – Diesel vehicle emission control device that traps and incinerates PM emissions after they are exhausted from the engine but before they enter the atmosphere. A type of available retrofit technology.

Environmental Protection Agency (EPA) – the Federal Agency responsible for enforcing federal environmental laws, including the Clean Air Act.

Gateway Cities Council of Governments (GCCOG) – The COG is a non profit organization which serves as an advocate in representing its members, which are 27 cities located in Southeast Los Angeles County. The region extends from coastal Long Beach to the foothill communities to the north, and includes both the San Pedro Bay Ports.

Goods Movement Action Plan (GMAP) – Report and strategy developed by the California Bureau of Transportation and Housing, CalEPA and stakeholder groups to plan for goods movement capacity expansion, mitigation of goods movement-related environmental and community effects, and to address goods movement homeland security concerns.

Grams per Brake Horsepower-Hour (g/bhp-hr) – A measurement of the amount of emissions released by an engine based on fuel use. Emission standards for heavy-duty vehicles are typically stated in g/bhp-hr.

Greenhouse Gases (GHG) - Greenhouse gases are those compounds which trap solar radiation in the earth's atmosphere. This process acts like a greenhouse, elevating temperature and altering global climate patterns. These gases include carbon dioxide, methane, nitrous oxide, and ozone.

Gross Vehicle Weight Rating (GVWR) - The maximum allowable total weight of a road vehicle that is loaded to capacity, including the weight of the vehicle itself plus fuel, passengers, cargo, and other miscellaneous items such as extra aftermarket parts.

Health Risk Assessment (HRA) – Health risk assessment uses toxicology data collected from animal studies and human epidemiology, combined with information about the degree of

exposure, to quantitatively predict the likelihood that a particular adverse response will be seen in a specific human population exposed to specific chemicals or environmental toxins.

Heavy Duty Vehicle – A vehicle defined by CARB as weighing 14,000 GWVR or greater. These vehicles traditionally run on diesel and can contribute significantly to air quality concerns.

Liquefied Natural Gas (LNG) - Natural gas that has been condensed to a liquid typically by cryogenically cooling the gas to minus 260 degrees Fahrenheit. LNG is utilized both to transport natural gas across areas without pipeline access and can be used as a low-emission alternative vehicle fuel. As a transportation fuel, LNG is especially suited for heavy-duty applications.

Los Angeles County Metropolitan Transportation Authority (MTA, LACMTA, Metro) – Metro is the regional transportation planner for all of Los Angeles County. It develops and oversees transportation plans, policies, funding programs, and both short-term and long-range solutions that address the County’s increasing mobility, accessibility and environmental needs. Additionally, Metro operates the County’s transit system programs (highway, rail and bus).

Oxides of Nitrogen or Nitrous Oxides (NOx) - Regulated air pollutants, primarily NO and NO₂ but including other substances in minute concentrations. Under the high pressure and temperature conditions in an engine, nitrogen and oxygen atoms in the air react and contribute to formation of photochemical ozone (smog).

Parametric Emissions Monitoring System (PEMS) – A technology utilized to predicatively monitor exhaust emissions compliance utilizing algorithms and relationships between emission rates, in place of continuous emission monitoring systems.

Particulate Matter (PM) - A generic term for a broad class of chemically and physically diverse substances that exist as discrete particles (liquid droplets or solids) over a wide range of sizes. Diesel particulate matter has been linked to serious public health and respiratory problems and has been identified by the CARB, the US EPA and by numerous international health organizations as a human carcinogen and mutagen.

Repower – A term describing replacing a vehicle’s existing engine with a new engine, in order to either prolong the vehicle life or reduce emissions.

Retrofit – A term describing adding pollution control technologies, such as particulate filters or oxidation catalysts, to an existing engine.

San Pedro Bay Ports (SPBP) – The Ports of Los Angeles and Long Beach. Together, these ports Move more than \$260 billion a year in trade and more than 40 percent of the nation’s containerized cargo. If considered as a single SPBP complex, the adjacent ports would be the fifth-largest container port in the world.

Selective Catalytic Reduction (SCR) – An exhaust after treatment strategy employed to reduce NO_x emissions. SCR is a technology that injects urea into the exhaust stream of a diesel engine and then utilizes a catalyst to in order to convert NO_x into nitrogen and water vapor.

Smog - A mixture of pollutants, principally ground-level ozone, produced by chemical reactions when volatile organic compounds (VOCs), oxygen and NO_x react in the presence of sunlight. A major portion of smog-formers come from burning of petroleum-based fuels such as diesel and gasoline. Smog can harm health, damage the environment and cause poor visibility.

South Coast Air Quality Management District (SCAQMD or AQMD) – The regional air board with air quality regulatory control over much of Los Angeles, Riverside, Orange and San Bernardino Counties. Its regulatory limits are sometimes stricter than state requirements (although CARB must grant the SCAQMD exemptions for these expanded limits.)

Southern California Association of Governments (SCAG) - Metropolitan Planning Organization for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial. As the designated Metropolitan Planning Organization, SCAG is mandated by the federal government to design plans for transportation, growth management, hazardous waste management, and air quality.

State Implementation Plan (SIP) - Federal clean air laws require areas with unhealthy levels of ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and inhalable particulate matter to develop SIPs describing how they will attain national ambient air quality standards. State law makes CARB the lead agency, while local air districts prepare SIP elements and local attainment plans which they submit to ARB for review and approval. The U.S. EPA grants final approval on local SIPs.

Sulfur Oxides (SO_x) – Refers to SO, SO₂ and SO₃. Since petroleum contains varying amounts of sulfur compounds, its combustion generates SO_x in the air which, when oxidized, can react to form acid rain. SO_x emissions are of particular concern from bunker and jet fuel, as US on-road diesel fuel became compliant in 2006 with US EPA and CARB ULSD requirements.

Twenty-foot Equivalent Unit (TEU) – Container capacity is measured in TEUs. A standard TEU cargo capacity is equal to 20 ft (length) × 8 ft (width) × 8 ft 6 in (height). Most containers measure 2 TEUs are known as 40-foot containers.

Ultra Low Sulfur Diesel (ULSD) - Diesel fuel with a sulfur content not to exceed 15 ppm (parts per million). The United States now requires use of ULSD in all on-road diesel vehicles, while California requires ULSD use in all on and off-road vehicles and fixed equipment. The EPA states that ULSD will reduce both NO_x and PM emissions.

Verified Diesel Emission Control System (VDECS) – A diesel emission control technology that has been verified by the California Air Resources Board. Vehicle owners may utilize verified technologies to achieve emission reductions that are officially recognized by the State of California.

Virtual Container Yard (VCY) – The use of web-based technology to coordinate activities among shipping companies, importers, exporters, trucking companies and terminal operators to effectively manage the distribution and use of full and empty containers.

Volatile Organic Compound (VOC) - Reactive gases released during combustion or evaporation of fuel and regulated by EPA. VOCs react with NO_x in the presence of sunlight and form ozone.

Acronyms and Abbreviations

| | |
|----------|--|
| ACTA | Alameda Corridor Transportation Authority |
| AMP | Alternative Maritime Power |
| APU | Auxiliary Power Unit |
| AQAP | Air Quality Action Plan |
| AQMP | Air Quality Management Plan |
| AVL | Automated Vehicle Locator |
| BACT | Best Available Control Technology |
| BCO | Beneficial Cargo Owner |
| CAAP | Clean Air Action Plan (San Pedro Bay Ports) |
| CAC | Community Advisory Committee |
| CARB | California Air Resources Board |
| Caltrans | California Department of Transportation |
| CHE | Cargo Handling Equipment |
| DPF | Diesel Particulate Filter |
| DPM | Diesel Particulate Matter |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| g/bhp-hr | Grams per Brake Horsepower-Hour |
| GCCOG | Gateway Cities Council of Governments |
| GHG | Greenhouse Gas |
| GMAP | Goods Movement Action Plan |
| HC | Harbor Craft |
| HDV | Heavy Duty Vehicle |
| HOV | High Occupancy Vehicle |
| Hp | Horsepower |
| HRA | Health Risk Assessment |
| LACMTA | Los Angeles County Metropolitan Transportation Authority |
| LNG | Liquefied Natural Gas |
| LPS | Locally Preferred Strategy |
| MATES | Multiple Air Toxics Exposure Studies |
| MDO | Marine Diesel Oil |
| MGO | Marine Gas Oil |
| MPO | Metropolitan Planning Organization |
| MY | Model Year |
| NOx | Oxides of Nitrogen |
| NYK | Nippon Yusen Kaisha (NYK Line) |
| OGV | Ocean Going Vessel |
| OPC | Oversight Policy Committee |
| PEMS | Parametric Emissions Monitoring System |
| PHL | Pacific Harbor Line |
| PM | Particulate Matter |
| POLA | Port of Los Angeles |

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|--------|--|
| POLB | Port of Long Beach |
| RL | Railroad Locomotives |
| RTGs | Rubber Tire Gantry Cranes |
| SB | California Senate Bill |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCR | Selective Catalytic Reduction |
| SIP | State Implementation Plan |
| SOx | Sulfur Oxides |
| SPBP | San Pedro Bay Ports |
| TAC | Technical Advisory Committee |
| TAC | Toxic Air Contaminant |
| TDM | Transportation Demand Management |
| TEU | Twenty-foot Equivalent Unit |
| TPY | Tons per Year |
| TSM | Transportation Systems Management |
| ULSD | Ultra Low Sulfur Diesel |
| USEPA | United States Environmental Protection Agency |
| VCY | Virtual Container Yard |
| VDECS | Verified Diesel Emission Control System |
| VSR | Vessel Speed Reduction |

Gateway Cities Council of Governments Air Quality Action Plan Input/Feedback Questionnaire

As part of the development of the Gateway Cities Council of Governments Air Quality Action Plan (AQAP), meetings will be held with the previous members of the Tier 2 Community Advisory Committee. At this meeting, input and feedback on the development of the AQAP will be requested from attendees.

The following is a list of typical questions that will be discussed at these meetings:

- What was your role in the I-710 major Corridor Study process?
- Do you have any comments about the previous recommendations of the Oversight Policy Committee or the Community Advisory Committee processes or recommendations?
- Are there specific air quality programs you would you like to see addressed in the COG's AQAP?
- What programs do you believe are absolutely essential for the AQAP to be successful?
- Are there air quality programs or projects, rules or regulations that you consider to be detrimental to the improvement of air quality along the corridor?
- Is there anything that you would absolutely not want to see in the AQAP?
- As you are aware, the Ports of LA and Long Beach Clean air Action Plan (CAAP) will likely have a significant impact on the I-710 corridor. What programs in the CAAP do you consider to be the most beneficial to air quality along the I-710 corridor?
- After review of the CAAP, what programs might you consider to be the least beneficial to air quality along the I-710 corridor from the CAAP?
- What concerns do you have about the COG's AQAP?
- What should be the role of the Health Risk Assessment analyses in the COG AQAP?
- What are your expectations for the AQAP?

- What future role would you like to play in the development of the AQAP?
- Do you have any concerns about how the AQAP process has been handled so far?
- Do you have any suggestions or comments about the overall process of creating the AQAP?
- Additional comments or suggestions?