

GATEWAY CITIES COUNCIL OF GOVERNMENTS

Environmental Committee

AGENDA

Wednesday, May 29, 2013
6:00 - 8:30 p.m. Meeting

Gateway Cities Council of Governments
16401 Paramount Boulevard, 2nd Floor Conference Room
Paramount, California

STAFF REPORTS AND OTHER WRITTEN DOCUMENTS ARE AVAILABLE IN THE GATEWAY CITIES COUNCIL OF GOVERNMENTS OFFICES, 16401 PARAMOUNT BOULEVARD, PARAMOUNT, CALIFORNIA. ANY PERSON HAVING QUESTIONS CONCERNING ANY AGENDA ITEM MAY CALL THE COG STAFF AT (562) 663-6850.

FOR YOUR INFORMATION: The Environmental Committee will hear from the public on any item on the agenda or an item of interest that is not on the agenda. The Environmental Committee cannot take action on any item not scheduled on the agenda. These items may be referred for administrative action or scheduled on a future agenda. Comments are to be limited to three minutes for each speaker, unless extended by the Environmental Committee, and each speaker will only have one opportunity to speak on any one topic. You have the opportunity to address the Environmental Committee at the following times:

- A. AGENDA ITEM: at this time the Environmental Committee considers the agenda item OR during Public Comments, and
- B. NON-AGENDA ITEMS: during Public Comments, comments will be received for a maximum 20-minute period; any additional requests will be heard following the completion of the Environmental Committee agenda; and
- C. PUBLIC HEARINGS: at the time for public hearings.

Please keep your comments brief and complete a speaker card for the Chair.

- I. **CALL TO ORDER**
- II. **ROLL CALL – BY SELF INTRODUCTIONS**

III. PLEDGE OF ALLEGIANCE

IV. AMENDMENTS TO THE AGENDA - This is the time and place to change the order of the agenda, delete or add any agenda item(s).

V. PUBLIC COMMENTS - Three minutes for each speaker.

VI. CONSENT CALENDAR

- A. Minutes of the January 25, 2012 meeting of the Environmental Committee
- B. Minutes of the January 30, 2013 meeting of the Environmental Committee
- C. Minutes of the April 17, 2013 meeting of the Environmental Committee

VII. REPORTS

5 Min. A. AQAP Status and Schedule Update - Oral Report by ICF

SUGGESTED ACTION: A MOTION TO HEAR REPORT, POSSIBLE ACTION AND/OR GIVE DIRECTION TO STAFF

5 Min. B. AQAP Participation Framework Committee Reports - Oral Report by Arellano Associates

SUGGESTED ACTION: A MOTION TO HEAR REPORT, POSSIBLE ACTION AND/OR GIVE DIRECTION TO STAFF

C. Air Quality Action Plan– Report on Final Draft Document– Oral Report by ICF

30 Min. SUGGESTED ACTION: A MOTION TO HEAR REPORT, POSSIBLE ACTION AND/OR GIVE DIRECTION TO STAFF

15 Min. D. Review of Previous Work Products and Decisions – Oral Report by ICF

SUGGESTED ACTION: A MOTION TO HEAR REPORT, POSSIBLE ACTION AND/OR GIVE DIRECTION TO STAFF

10 Min. E. Air Quality Modeling in the Strategic Transportation Plan – Oral Report by ICF

SUGGESTED ACTION: A MOTION TO HEAR REPORT, POSSIBLE ACTION AND/OR GIVE DIRECTION TO STAFF

F. COG Engineer's Report - Oral Report by Jerry Wood

10 Min. SUGGESTED ACTION: A MOTION TO HEAR REPORT, POSSIBLE ACTION AND/OR
GIVE DIRECTION TO STAFF

VIII. MEETING SCHEDULE REVIEW

IX. COMMENTS FROM ENVIRONMENTAL COMMITTEE CHAIR AND MEMBERS

X. ADJOURNMENT

NOTICE: New items will not be considered after 8:30 p.m. unless the Environmental Committee votes to extend the time limit. Any items on the agenda that are not completed will be forwarded to the next regularly scheduled Environmental Committee meeting.

IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT, IF YOU NEED SPECIAL ASSISTANCE TO PARTICIPATE IN THIS MEETING, PLEASE CONTACT THE COG OFFICE AT (562) 663-6850. NOTIFICATION 48 HOURS PRIOR TO THE MEETING WILL ENABLE THE COUNCIL OF GOVERNMENTS TO MAKE REASONABLE ARRANGEMENT TO ENSURE ACCESSIBILITY TO THIS MEETING.

CONSENT CALENDAR
ITEM A
APPROVAL OF MINUTES
January 25, 2012

GATEWAY CITIES COUNCIL OF GOVERNMENTS

Environmental Committee

Meeting Minutes

Wednesday, January 25, 2012

6:00 - 8:30 p.m. Meeting

Gateway Cities Council of Governments
16401 Paramount Boulevard, 2nd Floor Conference Room
Paramount, California

I. CALL TO ORDER

Chairman Bill DeWitt called the meeting to order at 7:07 PM.

II. ROLL CALL – BY SELF INTRODUCTIONS

Roll call was taken by self-introduction.

COMMITTEE MEMBERS PRESENT: Chairman Bill DeWitt – City of South Gate; Steve Lefever – Planning Directors Committee Representative (City of South Gate); Elizabeth Warren – FuturePorts; Michael Jordan and Nelson Kerr – representing Ron Arias, City of Long Beach Health and Human Services Department; Adrian Martinez– Natural Resources Defense Council; TL Garrett - Pacific Marine Shipping Association; Angelo Logan – AQAP Advisory Roundtable Liaison (East Yard Communities for Environmental Justice); Luis Cabrales – AQAP Advisory Roundtable Liaison (Coalition for Clean Air); David Libatique - Port of Los Angeles Commissioner; Daniel Ojeda – AQAP Technical Roundtable Liaison (City of Lynwood).

COMMITTEE MEMBERS ABSENT

Jorge Rifa – City Managers Committee Liaison (City of Commerce); Ruben Arceo – I-5 JPA Representative (City of La Mirada); Angie Castro – representing Supervisor Gloria Molina; and Karly Katona, Representing Supervisor Mark Ridley-Thomas; Steve Forster (City of La Mirada; Judith Mitchell – South Coast Air Quality Management District Board; Douglas Drummond and Thomas Fields – Port of Long Beach Commissioners.

OTHERS PRESENT: Joan Greenwood – AQAP Advisory Roundtable Representative (West Long Beach Neighborhood Representative); Harold Tseklenis – AQAP Advisory Roundtable Representative (Downey Community Representative); Jessica Tovar – AQAP Advisory Roundtable Representative (Long Beach Alliance for Children with Asthma); Jill Griffiths – AQAP Technical Roundtable Representative (City of Long Beach); Jerry Wood – GCCOG

Staff; Karen Heit – GCCOG Staff; Scott Broten, ICF International; Susan DeSantis – Arellano Associates; Maria Yanez-Forgash – Arellano Associates; Katie Burnside – Arellano Associates.

III. PLEDGE OF ALLEGIANCE

Steve Lefever led the Pledge of Allegiance.

IV. AMENDMENTS TO THE AGENDA

There were no amendments to the agenda.

V. PUBLIC COMMENTS

There were no public comments.

VI. CONSENT CALENDAR

There were no additions to the meeting minutes of the October 26, 2011 meeting of the Environmental Committee. Member Daniel Ojeda made a motion to receive and file the report. Member TL Garrett seconded the motion to no objection.

VII. REPORTS

A. AQAP Status and Schedule Update – Oral Report by ICF

Overall Status, Schedule and 101 Handout Review

Scott Broten presented a Status and Schedule Update on the AQAP. He reviewed the components of the AQAP and identified those that are part of the I-710 EIR/EIS and those that are part of the GCCOG AQAP process. He presented an assessment of the work completed to date on each task and the scheduled completion dates for the tasks still in process. He also discussed the development of the Toolkit that will be a product of the various tasks that are part of the AQAP including the completion of the Compendium Update and Early Actions. The Toolkit will be a set of measures, policies, projects that can be implemented to improve air quality in the Gateway Cities COG subregion. He also presented the AQAP meeting schedule for 2012 and noted the topics that each of those public meetings and webinars would be covering. Scott briefly mentioned that the list of Early Actions has been completed and will be released in early February.

B. AQAP Participation Framework Committees Reports – Oral Report by Arellano Associates.

Susan DeSantis presented an overview of the Participation Framework and updated the Committee on its current status. She reported on the HIA Technical Working Group and Roundtable meetings that took place between October and November 2011, which focused on reviewing the draft findings and recommendations of the I-710 Health Impact Assessment (HIA) work product. She also reported that the Transportation Committee (TC) and the Gateway Cities Council of Governments (GCCOG) Board approved the Environmental Committee's recommendation for a Peer Review of the HIA document. The GCCOG Board also requested staff to provide an update to the TC at their January 2012

meeting on how to proceed with the peer review. She reviewed some of the comments, suggestions and concerns that were raised by the Working Groups and Roundtables and noted that there was universal support for the Peer Review. She then indicated that per the TC's action all comments received during the various meetings on the HIA, meeting summaries and any documents used during the HIA process would be provided to the Peer Review Panel. The TC also agreed that at the conclusion of the Peer Review, the final HIA work product document and the Peer Review Report would be submitted directly to Caltrans. She paused to allow for questions

Member TL Garret requested clarification on what documentation and in what format those documents were provided to the I-710 Project Work Group? Additionally, he asked what documentation will be provided to the Peer Review Committee as the Peer Review Process moves forward. J. Wood responded that both the I-710 Project Work Group has been provided with a variety of reports including Roadway Modeling, Construction Staging, final HIA Work Product, comment letters, etc. He further noted that all reports and documents provided to the I-710 Project Work Group will be made available for the Peer Review.

Next Susan DeSantis requested that Mr. Wood provide a brief update on the status of the I-710 EIR/EIS release for public comment, and how the proposed Peer Review schedule would fit within that overall schedule. Mr. Wood indicated that the EIR/EIS report will be released on April 1 and that the current review period is for 60 days. Caltrans is still considering whether or not to extend the review period beyond the 60 days; they will make that determination within one month.

Member Angelo Logan expressed concern that the peer review will not be completed in time to be submitted to Caltrans. He further noted that if the HIA is not included as part of the EIR/EIS, then the public can't comment during the comment period. Mr. Wood recognized the challenges with the schedule and noted that the HIA could still be included as a comment to the EIR/EIS and thus would be part of the final EIR/EIS. Member Karen Heit also added that it is important to keep in mind that the I-710 Project Committee can only make recommendations to Caltrans on what to include in the EIR/EIS, but it cannot force the lead agency do anything. Thus far Caltrans has been open to reviewing the HIA Work Produce, but has not made any decision on whether or not to include any of the HIA in the EIR/EIS. Member Angelo Logan requested that the EC come back to the schedule/timing discussion following the Peer Review Presentation. Ms. DeSantis noted that current discussion with the National Research Council (NRC) staff suggest that a preliminary Peer Review document may be available before the comment period closes. She also indicated that per NRC staff, the current schedule is ambitious and while it may be possible to tighten it in certain areas the most time consuming task is convening of the Peer Review Panel, which is a task that is time-consuming, and cannot be expedited.

Member Adrian Martinez requested clarification on the action taken by the I-710 Project Committee. It is his understanding that the I-710 Project Committee approved the inclusion of the HIA in the EIR/EIS, not the Peer Review Report. He also expressed concern over the Peer Review Process delaying consideration of the inclusion of the HIA in the draft EIR/EIS and argued that the best place for the document to be included is in the draft stage. Ms. DeSantis noted that the recommendation to move forward with a Peer Review was made by the Environmental Committee and subsequently approved by the Transportation Committee that the HIA was not adequate for inclusion without a Peer Review.

Member TL Garret requested clarification on whether the COG Board would take action on the HIA at the conclusion of the Peer Review Process. Ms. DeSantis stated that there would be no Board action at that time. She noted that the TC and GCCOG Board approved motions in November 2011 stating that at the conclusion of the Peer Review Process, the HIA, Peer Review Report and all Comments received during the participation process were to be submitted directly to Caltrans. This action modified the language approved by this EC Committee at its November meeting. Ms. Heit read the exact language in the November 2nd TC meeting.

C. I-710 HIA Work Product Peer Review – Oral Report by Karen Heit

Ms. DeSantis called the Environmental Committee Member's attention to the Peer Review Process handouts. She pointed out that the currently the HIA Peer Review is in the "study definition" stage, which focuses on the questions that will guide the Peer Review Process. She also indicated that the presentation would include the nine study questions approved by the NAS Governing Board and noted that input from the Environmental Committee on these questions is welcomed. Ms. DeSantis also indicated that the selection of the Peer Review Panel is a key step in the Peer Review Process. She highlighted the importance of selecting a panel that does not result in any conflicts of interest, that is balanced and has the expertise needed to evaluate the HIA document. Ms. DeSantis then reviewed the preliminary schedule based on initiating the Peer Review in February. She did note that the funds for the Peer Review have not been secured.

Next, Ms. DeSantis began review of the nine questions approved by the NAS Governing Board that would guide the Peer Review Process. Member Angelo Logan requested clarification on what documentation would be available to the Peer Review Panel. Ms. DeSantis responded that all documents generated by all of the HIA TWG, Roundtables, Environmental Committee, as well as any formal and informal comments submitted would be made available to the panel. Member Logan also wanted to ensure that NAS was provided with the purpose and need of the HIA.

Member Nelson Kerr asked if the Peer Review Panel has been selected and if they have experience in HIA's. Ms. DeSantis indicated that we do not know who the panel members will be at this time; however she reviewed the qualifications of the NAS staff that would be assigned to the Peer Review

Member Luis Cabrales requested clarification on whether or not the Environmental Committee can change the questions. Ms. DeSantis clarified that the EC can make recommendations to revise the language, however the nine questions were approved by the NAS Governing Board and they are under no obligation to change the questions.

Member Angelo Logan requested clarification on the source of the nine questions. Ms. DeSantis indicated the nine questions were crafted and approved by the NAS Staff. She also indicated that NAS staff were provided with the questions drafted by the Gateway Cities staff and reviewed by the Environmental Committee, and then subsequently by the Transportation Committee prior to submission to NAS.

Member Adrian Martinez indicated that Question 2 needed to be more specific. He thought it was too broad as currently stated.

January 25, 2012

Member T.L. Garrett made a general comment on all nine questions. He indicated that the questions should be used within the scope of the I-710 project and the effects of the project. This is important because some of the recommendations were made for items that went beyond the I-710 project.

Next, Ms. DeSantis reviewed questions six to nine and paused for questions and comments. No questions or comments were made by Environmental Committee Members. Chairman DeWitt asked if there were any comments on the process.

Member Adrian Martinez asked the cost of the Peer Review process. Ms. Heit indicated that a contract has not been secured with NAS; therefore she is not at liberty to discuss cost details. As soon as a contract is secured the cost will be made public record.

Member Angelo Logan asked to revisit the Peer Review timing issue that he raised during the previous presentation. He recommended that the issue of the Peer Review timing be brought up to the TC and to the I-710 Project Committee as it relates to the timing of the I-710 EIS/EIR. Mr. Wood indicated that Caltrans has not made a decision on the length of the comment period.

Member Nelson Kerr requested clarification on the source of funds for the Peer Review. He also noted that if the funding is not secured soon the Peer Review schedule will likely be impacted. Ms. DeSantis responded that staff is currently looking at funding sources, including foundations.

Member T.L. Garrett noted an opportunity with the release of the I-710 EIR/EIS overlapping with the Peer Review and wanted to know if it is useful to have the EIR/EIS inform the Peer Review process – the HIA's value added. Ms. Heit responded that NAS indicated that in order to make the value judgment they would have to review the EIR/EIS and that process could be very timely but cost prohibitive.

Chairman DeWitt asked for Public Comments. Jill Griffiths, City of Long Beach noted that the Environmental Committee Members seem to have different levels of familiarity with the preparation of the Draft EIR. She noted that the decision to include the HIA or any other document in the EIR is not an arbitrary decision, the crating and preparation of the EIR is very specific and only supporting technical studies should be included that are used in the preparation of the text and conclusions in the Draft EIR. She also noted that if the HIA is not quoted or used in the EIR to make decisions then it should not be included. Mr. Wood responded that Human Impact Partners (HIP) had access to technical studies and Caltrans is currently reviewing the HIA to see if it should be included.

Finally, Ms. DeSantis reviewed the Peer Review Committee required expertise and invited EC members to make recommendations on potential members.

Angelo Logan noted that jobs and the economics was one of the big questions that came up and asked where that topic fits in the expertise required. M. DeSantis agreed and suggested making a recommendation to add this area of expertise.

Member Luis Cabrales asked if the experts were going to be selected nation-wide. Ms. DeSantis indicated that they would be selected based on a nation-wide search.

D. COG Engineer's Report– Oral Report by Jerry Wood

This item will be discussed at the next meeting

VIII. MEETING SCHEDULE REVIEW

Chairman DeWitt confirmed that the next meeting of the Environmental Committee will be determined at a later date.

IX. COMMENTS FROM ENVIRONMENTAL COMMITTEE CHAIR OR MEMBERS

X. ADJOURNMENT

The meeting adjourned at 8:30 PM.

CONSENT CALENDAR
ITEM B
APPROVAL OF MINUTES
January 30, 2013

GATEWAY CITIES COUNCIL OF GOVERNMENTS

Environmental Committee

Meeting Minutes

*Wednesday, January 30, 2013
6:00 - 8:30 p.m. Meeting*

Gateway Cities Council of Governments
16401 Paramount Boulevard, 2nd Floor Conference Room
Paramount, California

I. CALL TO ORDER

Mr. Steve Lefever, Planning Director for the City of South Gate, chaired the meeting in the absence of the Chairman, Mayor Bill DeWitt of the City of South Gate. Acting Chairman Lefever called the meeting to order at 6:21 PM.

II. ROLL CALL – BY SELF INTRODUCTIONS

Roll call was taken by self-introduction.

COMMITTEE MEMBERS PRESENT: Steve Lefever – Planning Directors Committee Representative (City of South Gate); Elizabeth Warren – FuturePorts; Nelson Kerr, City of Long Beach Health and Human Services Department; Adrian Martinez – Natural Resources Defense Council; TL Garrett - Pacific Marine Shipping Association; Angelo Logan – AQAP Advisory Roundtable Liaison (East Yard Communities for Environmental Justice); Douglas Drummond – Port of Long Beach Commissioners; Marissa Perez – representing Judith Mitchell – South Coast Air Quality Management District Board;

COMMITTEE MEMBERS ABSENT: Chairman Bill DeWitt – City of South Gate; Jorge Rifa – City Managers Committee Liaison (City of Commerce); vacant position – I-5 JPA Representative (City of La Mirada); Angie Castro – representing Supervisor Gloria Molina; and Karly Katona, Representing Supervisor Mark Ridley-Thomas; Thomas Fields – Port of Long Beach Commissioners; David Libatique - Port of Los Angeles Commissioner;

OTHERS PRESENT: Ian McMillan - SCAQMD; Robert Vasquez - Los Angeles County Public Health; Alan Hicks -U.S. Department of Transportation; Molly Deringer (*by phone*) - California Environmental Associates; Adrian Alvarez - Metro; Danielle Valentino - Metro; Jerry Wood – GCCOG Staff; Karen Heit – GCCOG Staff; Scott Broten - ICF International; Jeff Ang-Olson - ICF; Ed Carr (*by phone*) - ICF; Arlene Rosenbaum (*by phone*) - ICF; Susan DeSantis – Arellano Associates; Maria Yanez-Forgash – Arellano Associates; Elizabeth Hansburg – Arellano Associates; Kyle Santiago - Arellano Associates.

III. PLEDGE OF ALLEGIANCE

Acting Chairman Steve Lefever led the Pledge of Allegiance.

IV. AMENDMENTS TO THE AGENDA

There were no amendments to the Agenda.

V. PUBLIC COMMENTS

There were no public comments.

VI. CONSENT CALENDAR

- A. Consideration of the minutes from the January 25, 2012 meeting of the Environmental Committee was postponed until the next meeting because there was not a quorum of members present.

VII. REPORTS

A. AQAP Status and Schedule Update – Oral Report by ICF

Susan DeSantis of Arellano Associates introduced Scott Broten of ICF. Mr. Broten outlined the three presentations that would be given during the meeting: Air Quality Modeling, Health Risk Assessment (HRA) and New Measures Analysis.

Jerry Wood of the Gateway Cities Council of Government then briefly reviewed the history of the AQAP Project and reminded the Committee Members of the five tasks that were identified by the I-710 Oversight Committee as part of their approval of the I-710 Corridor Study in 2004:

1. Determine and quantify existing air quality and health risk 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 estimating costs, time- lines and responsibilities;
4. Develop a 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

Mr. Broten then resumed the Status and Schedule Update. He reviewed the scope and tasks of the AQAP project and the timeline of work completed thus far. He explained that the Toolkit will be developed primarily from the Air Quality Modeling and the Health Risk Analysis. He explained that the hot spot analysis has been postponed due to budget constraints and will be completed as part of the second phase of the Gateway Cities Strategic Transportation Plan.

AQAP Participation Framework Committees Reports – Oral Report by Arellano Associates.

Susan DeSantis presented an overview of the Participation Framework and updated the Committee on its current status. She reported on the Roundtable meetings and technical webinars that took place in September, October and November of 2012. She reviewed several examples of the new measures that were prioritized at the October 10, 2012 New

Measures Workshop by the Technical and Advisory Roundtable Committees. Ms. DeSantis then forecasted the remaining meetings, workshops and webinars that will take place in 2013.

Member Angelo Logan requested clarification on the decision making process regarding the feedback from the Advisory Roundtable and Environmental Committee members. Specifically, he asked when there were areas of conflicting opinions on some elements of the AQAP who decided which of those opinions would be included. Mr. Wood responded by saying that all feedback received will be included in the final Report since the AQAP has been a collaborative process. He also said that participants will be able to review the draft version of the AQAP prior to its finalization. Ms. DeSantis explained that the draft version of the AQAP will be presented via webinar on April 2, 2013 from 1:00 to 3:00 PM and also to the Environmental Committee at their next meeting on April 17, 2013. Mr. Lefever requested that all EC Members reserve the date of April 17 for the next meeting of the EC.

Member TL Garrett asked when the draft AQAP would be ready for review. Ms. DeSantis said that the draft would be available two weeks prior to the April 2nd Webinar. Mr. Wood added that the Team hoped to release a preliminary, conceptual draft in March, approximately a month in advance of the April 2nd Webinar.

B. I-710 HIA Work Product Peer Review – Oral Report by Karen Heit

Next, Karen Heit of the Gateway Cities COG gave a brief update on the status of the Health Impact Analysis (HIA) Peer Review Process. She explained that Metro has requested that the National Academy of Science (NAS) peer review the HIA. She said that Metro and the NAS have agreed to a scope of work and the areas of the HIA Report to be assessed; however, there is currently a conflict over contract language concerning ownership of the final product and indemnification. Ms. Heit ended by saying that the two parties are still negotiating.

Ian McMillian, SCAQMD, asked if there was a “backup plan” for a peer review if Metro and NAS were not able to reach an agreement. Ms. Heit said in that event, the Project Team would have the HIA reviewed locally by a university in Southern California.

Angelo Logan asked about the purpose of performing a peer review of the HIA at this time. Ms. Heit responded that a peer review has value for Metro in determining whether other transportation projects.

C. Air Quality Modeling Findings and Recommendations – Oral Report by ICF

Next, Ed Carr of ICF gave the first of three reports on the AQAP components. Speaking by phone, Mr. Carr described the air quality modeling methodology and results. He reviewed the categories of pollution sources and explained some sample maps that are illustrative of the data and analysis in the Air Quality Modeling portion of the AQAP. At the end of his presentation, Mr. Carr took several questions from Environmental Committee Members.

Member Adrian Martinez, NRDC, asked for more information regarding the assumptions of pollution sources used in the model to predict pollution levels in 2035. He asked if the I-710 zero emission freight corridor currently under consideration was included in the model. Ed Carr responded by saying that the zero tailpipe emission truck corridor was modeled in the AQAP Air Quality/Health Risk Assessment (AQ/HRA) analyses. On-road mobile source

emissions came from a combination of Cambridge Systematic's modeling of Version 6B which reports traffic activity levels (vehicle miles traveled) and EMFAC2011 for the emission factors (g/mi). The zero tailpipe emission truck corridor still includes emissions from the truck activity which are generated from braking, tire wear and re-suspension of road dust material.

Mr. Wood added that the model included all emissions sources located within the Gateway Cities. Ian McMillan asked if the model included SCIG¹ or ICTF². Mr. Carr responded that these projects were not included in the 2035 modeling.

Member Nelson Kerr questioned the "averaging" of PM2.5 pollution levels across larger cities such as Long Beach. He would like to see the projections focus on specific areas that would be out of compliance. Mr. Wood responded that this more detailed level of analysis will be conducted as part of the second phase of the Strategic Transportation Plan and will include a "hot spot" analysis for the City of Long Beach and other cities in the Gateway Cities Subregion.

Member TL Garrett asked if the analysis and results of the Air Quality Modeling have been compared with SCAQMD's Air Quality Management Plan (AQMP). Jeff Ang-Olson said that many of the new measures prioritized and analyzed by ICF are also included in the AQMP and have been considered together. Mr. Garrett cited a previous recommendation from stakeholders that the project team meet with Susan Nakamura at SCAQMD to review the results of the AQAP Air Quality Modeling. Ms. DeSantis said that a meeting with Ms. Nakamura and her staff has taken place and another is planned for the near future. Mr. Garrett concluded by saying that it is in the best interest of all public and private stakeholders, agencies and local governments for the AQAP and the South Coast Air Quality Management Plan (AQMP) to be coordinated and consistent.

Acting Chairman Lefever then invited additional questions, but none were raised. The next item on the Agenda was the results of the Health Risk Assessment (HRA), which was presented via phone by Arlene Rosenbaum of ICF.

D. Health Risk Assessment Findings and Recommendations – Oral Report by ICF

Ms. Rosenbaum explained the types of pollutants considered in the HRA: fine particulate matter (PM2.5), diesel particulate matter (DPM), and other air toxics of concern in the Gateway Cities. She explained the health risks associated with each pollutant type and how the risks are projected to change between 2009 and 2035. She also explained an analysis of the distribution of risk over several subgroups within the Gateway Cities population, including minority ethnicities, youth under 18 years old and seniors over 64 years old, people lacking high school diplomas, people with limited or no English language skills, and people living in poverty. After this explanation, Acting Chairman Lefever asked her to pause for questions.

Members Angelo Logan and Nelson Kerr both asked for further clarification of the comparisons of risk level distribution over the population subgroups. Ms. Rosenbaum explained that data regarding these population subgroups is collected during the decennial U.S. Census. The Consultant Team used spatial analysis to identify the areas within the Gateway Cities with the highest (top 25%) and lowest (bottom 25%) health risk levels. The

¹ SCIG is the proposed BNSF Railway new rail yard Southern California International Gateway at the POLA.

² ICTF is the Union Pacific Railway Intermodal Container Transfer Facility Modernization Project.

Census data for people living in these two areas were compared to see if the distribution of risk over the subgroups in the high risk areas was different than in the low risk areas. This comparison of high-to-low risk distributions was done for 2009 and for 2035. In both years, the distributions were consistent with one another except for a disproportionate risk to people lacking high school diplomas.

Ian McMillan continued the discussion regarding the distribution of health risk. He asked if the Consultant Team had considered doing a cancer burden analysis of each of the quartiles.³ He said that the value ranges of risk level used to divide the population into quartiles makes it difficult to assess the percent of the population living at the lower bound versus the upper bound of each quartile's range. Ms. Rosenbaum acknowledged that a cancer burden analysis could be performed and would reveal more detailed results. Mr. Wood added that a more in depth analysis will be performed as part of the second phase of the Strategic Transportation Plan.

Acting Chairman Lefever called for any additional questions. When none were asked, Ms. Rosenbaum resumed her presentation. She said that overall, the health risks faced by all residents of the Gateway Cities region is substantially reduced by 2035, and the spatial disparity in risk level seen across the region has been eliminated except in a few isolated hotspots.

Ian McMillan noted an area of increased risk in an area just west of the POLA. Referring to maps (Slide 39) depicting health risk from PM2.5 across the Gateway Cities subregion, Mr. McMillan questioned the increase in health risk from 2009 to 2035. Mr. Carr responded by saying that this increase in risk arises from an increase in secondary PM2.5 as well as an increase in area sources of PM2.5. Ms. Rosenbaum explained that secondary PM2.5 is not directly emitted from pollution sources but rather forms in the atmosphere as the result of precursor emissions, which may not originate within the Gateway Cities subregion. She said that these emissions cannot be effectively addressed by individual cities or the COG; they must be addressed on an air-basin wide basis.

Acting Chairman Lefever then called for additional questions. None were asked; therefore, Ms. Rosenbaum finished her presentation by giving a brief overview summary of both the Air Quality Modeling and the HRA. She explained that the information developed in the Air Quality Modeling and the HRA are the basis upon which the New Measures were prioritized and selected for analysis.

Following Ms. Rosenbaum's remarks, Mr. Wood added that the EPA morbidity calculations will be included in the Health Risk Assessment and will be provided to Caltrans. He reiterated that the work presented here is a preliminary overview "at the 30,000 ft. level." A more detailed analysis will be performed, including an analysis of specific hotspots, in the next phase of the work; i.e., the Gateway Cities Strategic Transportation Plan.

Ian McMillan then asked if the Air Quality Modeling had included any modeling for ozone. He remarked that ozone is a significant problem for the Air Basin and NOx emissions from sources within the Gateway Cities contribute to the problem. Mr. Carr responded that no, ozone was not one of the pollutants modeled in the Air Quality Modeling or the HRA. These studies considered the secondary pollutant of PM2.5, but not precursor emissions such as NOx.

³ The quartiles are shown on Slide 43 of the presentation and show the population divided into four groups with ranges that represent the risk levels. Q1 < 25% risk; 25% < Q2 < 50% risk; 50% < Q3 < 75% risk; Q4 > 75% risk.

Mr. Wood then turned the presentation over to Jeff Ang-Olson to talk about the New Measures Analysis, which is currently underway.

E. New Air Quality Improvement Measures – Oral Report by ICF

Mr. Ang-Olson gave a summary of the process used to prioritize the New Measures, which are designed to further reduce emissions and improve air quality in the Gateway Cities. He explained that 18 measures were selected for analysis and will include a quantitative assessment of their effectiveness and the costs to implement them in order to realize a significant reduction in emissions. He noted that some of the New Measures were not good candidates for analysis because they are difficult to quantify. At the end of his presentation, Mr. Ang-Olson reiterated that all of the information he presented will be available in the draft report that is due out in February/March, and the final analysis of the New Measures will be used to inform the tools and strategies that are recommended in the final versions of the AQAP. He then paused and deferred to Acting Chairman Lefever who invited questions.

Angelo Logan asked if the “cost-effectiveness analysis” will include an analysis of the risk reduction associated with each measure. Mr. Ang-Olson explained that the cost analysis of each measure reflects the direct cost to the person or agency implementing the measure. He used the example of a hybrid or zero-emission vehicle in which the cost would be borne by the person or agent purchasing the vehicle. Mr. Logan stated that he would like to see an analysis of measures to reduce risk to the population in addition to those designed to reduce overall emissions. Mr. Logan gave the example of reducing risk through changes in proximity to emissions sources. He said these types of risk reduction measures can be achieved through changes to land use and zoning and therefore should be included in the analysis. Mr. Ang-Olson acknowledged that land use and zoning measures are a way to reduce the negative health impacts from emissions, but, he said, land use was not included in the New Measures Analysis because it does not play a direct role in reducing emissions output. He emphasized, however, that land use and zoning measures will be included among the strategies discussed in the AQAP. Mr. Logan then gave the example of hybrid vehicles in city fleets and referred to a demonstration project near the Ports as a possible example. Mr. Wood said he currently looking at demonstration projects.

Ian McMillan offered to contribute his Agency’s expertise to coordinate the measures in the AQAP with the current efforts of SCAQMD. Mr. Wood said that would be welcomed after SCAQMD staff has reviewed the draft report.

Adrian Martinez requested a presentation from the COG to the Environmental Committee regarding how CMAQ⁴ funding is being spent in the Gateway Cities region. Mr. Wood said he would research and follow up with the appropriate agency to find out the information.

G. COG Engineer’s Report – Oral Report by Jerry Wood

Mr. Wood then invited Ms. DeSantis to speak. Ms. DeSantis informed the Environmental Committee Members of the correspondence from BSNF and Union Pacific Railways with their comments on the AQAP recommendations. Ms. DeSantis informed the EC Members that hard copies were available if desired. Mr. Wood then moved on to the Engineer’s Report.

⁴ Congestion Mitigation and Air Quality Improvement Program (CMAQ) is a federally funded program through the FHWA.

Mr. Wood began by thanking the Environmental Committee Members for coming to the meeting and Metro for managing the AQAP Project on behalf of the GCCOG. He also thanked the Project Team for their efforts. Mr. Wood said that all the information presented at this meeting will be available in the draft report, which will be posted on the COG's website. Mr. Wood then outlined work to be undertaken as part of the Gateway Cities Strategic Transportation Plan Phase II, which will carry on the work that started under the AQAP. He reiterated that traffic modeling and hot spot analysis tasks will be performed as part of the Strategic Transportation Plan Phase II. Mr. Wood commented that ICF is on the Project Team and their work on these tasks will continue. He also highlighted several other transportation projects that are moving forward in the Gateway Cities subregion that will be incorporated into the Strategic Transportation Plan. He discussed the preliminary plans for the zero-emission freight corridor that are under development as well as a commercialization study to bring zero-emission trucks to market.

VIII. MEETING SCHEDULE REVIEW – Oral Report by Jerry Wood

Mr. Wood concluded his remarks confirming that the next meeting of the Environmental Committee will be in April or May.

IX. COMMENTS FROM ENVIRONMENTAL COMMITTEE CHAIR AND MEMBERS

Acting Chairman Lefever invited final comments from Committee Members. There were no final comments.

X. ADJOURNMENT

Acting Chairman Lefever dismissed the meeting at 8:23 PM.

CONSENT CALENDAR
ITEM C
APPROVAL OF MINUTES
April 17, 2013

GATEWAY CITIES COUNCIL OF GOVERNMENTS

Environmental Committee

Meeting Minutes

Wednesday, April 17, 2013

6:00 - 8:30 p.m. Meeting

Gateway Cities Council of Governments

16401 Paramount Boulevard, 2nd Floor Conference Room

Paramount, California

I. CALL TO ORDER

Chairman Bill DeWitt called the meeting to order at 6:14 PM.

II. ROLL CALL – BY SELF INTRODUCTIONS

Roll call was taken by self-introduction.

COMMITTEE MEMBERS PRESENT: Chairman Bill DeWitt – City of South Gate; Steve Lefever – Planning Directors Committee Representative (City of South Gate); TL Garrett - Pacific Marine Shipping Association; Douglas Drummond – Port of Long Beach Commissioners; Judith Mitchell – South Coast Air Quality Management District Board; Bill Pagett- Public Works Committee and I-405, 91 Corridor Representative.

OTHERS PRESENT: Alan Hicks, MARAD; Richard Havernack -- Port of Los Angeles; Ian McMillan-SCAQMD; Evenor Masis -- Los Angeles County Public Health; Robert Vasquez -- Los Angeles County Public Health; LaDonna DiCamillo -- BNSF Railways; Adrian Alvarez -- Metro; Danielle Valentino -- Metro; Jerry Wood – GCCOG Staff; Karen Heit – GCCOG Staff; Jeff Ang-Olsen -- ICF International; Scott Broten, ICF International; Susan DeSantis – Arellano Associates; Kyle Santiago – Arellano Associates; Elizabeth Hansburg – Arellano Associates.

III. PLEDGE OF ALLEGIANCE

Chairman Bill DeWitt led the Pledge of Allegiance.

IV. AMENDMENTS TO THE AGENDA

There were no amendments to the agenda.

V. PUBLIC COMMENTS

There were no public comments.

VI. CONSENT CALENDAR

Chairman DeWitt deferred the consent calendar and moved on to the reports and presentations because a quorum of the Environmental Committee was not yet present.

VII. REPORTS

A. AQAP Status and Schedule Update

B. AQAP Participation Framework Committee Reports - Update by Susan DeSantis -- Arellano Associates and Jerry Wood -- GCCOG Staff

Susan DeSantis welcomed the group and noted that Agenda Items A&B would be combined. She provided an overview of the agenda, which included a status report, a review of the new measure selection process, a report of the analysis findings and a group discussion and prioritization exercise to identify each measure as a short term, midrange, or long term effort. She also explained the timeline of the meetings held to date and work accomplished. Lastly, she highlighted the GCCOG Environmental Committee Meeting on May 29th and the presentation to the COG's Transportation Committee and Board of Directors on June 4th.

Jerry Wood briefly reviewed the history of the AQAP Project and explained how it will be incorporated into the GCCOG's Strategic Transportation Plan along with updated air quality and traffic data and modeling. He described the AQAP as a "living document" that will be updated as part of the Strategic Transportation Plan based on changes in the new 2012 RTP (SCAG) and changes in rail yard capacity. He also explained that the recommendations from the AQAP will be presented to the COG's Board of Directors and Transportation Committee Meetings.

After Ms. DeSantis and Mr. Wood's comments, Chairman DeWitt invited questions; none were asked. He then asked if any written comments had been submitted regarding the new measures. Ms. DeSantis said that Adrian Martinez of Natural Resources Defense Council may be submitting comments, but they have yet to be received. Mr. DeWitt moved to receive and file these reports at 6:25. Mr. Drummond seconded the motion.

C. New Air Quality Improvement Measures – Report on Development, analysis and quantification of impact of additional and new measures – Oral Report by Jeff Ang-Olsen -- ICF International

Jeff Ang-Olsen began the presentation with a review of the goals of the new measures and an explanation of how they were selected. He then proceeded to review the analysis and conclusions for each of the 18 new measures in the three categories:

1. Area Source Measures
 - a. Reduce Emissions from Charbroiling
 - b. Reduce Emissions from Residential Wood Combustion
 - c. Reduce Emissions from Building Construction and Demolition
 - d. Reduce Road Dust from Construction Sites
 - e. Expand Street Sweeping
 - f. Reduce Emissions from Glass Manufacturing

2. On-Road Vehicle Measures
 - a. Accelerate Zero and Near-Zero Emission Vehicle Adoption (light duty)
 - b. Zero Emission Port Trucks
 - c. Low Emission Trucks in Gateway Cities Communities
 - d. Alternative Fuel Infrastructure for Trucks
 - e. Heavy-duty Truck Inspection and Maintenance Program

3. Off-Road Mobile Source Measures
 - a. Advanced Technology for Port Cargo Handling Equipment
 - b. Control of At-Berth Ship Emissions
 - c. Install Clean Ship Engine Technologies
 - d. Emission Controls for Pleasure Boats
 - e. Low/Zero Emission TRUs
 - f. Low-emission Equipment for Public Construction Contracts

After the first measure was presented, Ms. DeSantis invited comments from those present. She explained that the GCCOG and the Project Team were seeking the group's insights on the measures as well as barriers to implementation for each measure.

After each measure was presented, the Environmental Committee Members and others present engaged in discussion, which was facilitated by Ms. DeSantis. The following is a summary of the discussion.

Area Source Measures

1a: Reduce Emissions from Charbroiling

Steve Lefever and Ian McMillan discussed the types of restaurants that would be impacted by a rule requiring scrubbers on open grill cooking types. The restaurants using under-fired char broilers are primarily smaller, local individual or small chain fast food restaurants, not national franchises such as McDonalds or Burger King. SCAQMD is currently researching scrubber technology. At present, this technology is very expensive and would require a significant investment by small "mom-and-pop" fast food restaurants. UC Riverside is currently conducting a study on this issue, which will continue through 2013. At present, the assumption is that a scrubber requirement would apply to larger restaurants; however, the SCAQMD Board of Directors will make that determination. Other questions asked:

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- What would trigger the requirements for the upgrades?
- Could enforcement be done through changes to the building codes?
- Where would the funding come from to retrofit existing stoves?

Mr. McMillian said that these questions were still being considered and no final decisions have been made.

Richard Havernack asked if this measure would be included in the AQAP recommendations considering that there is no direct correlation with transportation and the I-710 Project. Jerry Wood of the GCCOG responded that yes it would be included because the AQAP is concerned with all sources of pollution impacting air quality in the Gateway Cities. Ms. DeSantis then summarized the groups' discussion and affirmed that this was the type of dialogue that the COG and Project Team are seeking. She summarized the discussion thus:

- What would be the trigger mechanisms requiring installation of scrubbers?
- What will the impacts be on "mom-and-pop" restaurants and local chains?
- Will there be grants available to help defray the costs of scrubbers for smaller restaurants?

1b: Reduce Emissions from Residential Wood Combustion

Mr. Ang-Olsen informed the group that an amendment to the current wood burning regulation (Rule 45) is currently being prepared, and would be based on a similar regulation in Oregon. Chairman DeWitt asked if wood burning was prohibited, would it increase the amount of debris going to landfills. He also referenced that there are currently "no burn days" when air quality is particularly poor. Mr. Lefever and Ms. Judith Mitchell added to the discussion regarding the approximate amount of burn days per year, which is estimated to be around twenty. Mr. Havernack and Mr. Bill Pagett then joined the discussion regarding the costs of conversion of wood burning fireplaces to gas and the possible trigger mechanisms, such as remodeling or sales. Mr. Ang-Olsen of ICF and Ms. DeSantis agreed that these are questions requiring further exploration. Mr. Lefever added that a sale trigger would meet with opposition from the real estate industry. Mr. Pagett added that enforcement would be most effective if enforced at the city/municipal level. Mr. Havernack and Mr. McMillan discussed the certainty of the cost-effectiveness measure and the quality of the data. Mr. McMillan said that there are uncertainties about the cost-effectiveness of this measure because SCAQMD, which was the data source used for this analysis, has minimal data on the practices of individual residents regarding their burning frequencies and tendencies.

1c: Reduce Emissions from Building Construction and Demolition

Mr. Lefever asked if one additional inspector would be sufficient to increase compliance with the current regulations once the economy picks up, building rates increase, and there are

more job sites to visit. Mr. And-Olsen agreed that an uptick in building would require SCAQMD to prioritize the sites to be inspected. Mr. Wood added that currently many city building inspectors enforce these regulations. Mr. Pagett agreed, adding that in the City of Paramount, builders are required to have dust control measures on site. He also relayed that when dust blows from a job site, neighbors call and complain, which prompts the City to send out their building inspector. He added that vacuums are much better at controlling dust than blowers are.

TL Garrett objected to the measure because he believes the estimate of the amount of dust is not accurate. He said that the model used to estimate emissions from building sites must assume compliance with existing regulations, and this one does not. Mr. Ang-Olsen clarified that this measure also calls for expanding the sources of dust within the construction and demolition category that are subject to regulation, which Mr. Garrett conceded was a valid measure; however, Mr. Garrett emphasized his prior assertion that hiring an additional inspector based on the assumption that builders are not in compliance with existing regulations is an not a valid assumption upon which to make a recommendation. Mr. McMillan countered by saying that in some cases, builders are not in compliance and additional inspectors would enable broader enforcement. Ms. DeSantis summarized the discussion thus:

- Adding sources of dust to be included in the existing regulation (Rule 403) through amendment is a valid measure; however,
- The implementation of this measure; i.e. the hiring on an additional inspector, may not be appropriate because it is predicated on the assumption that builders are not in compliance with existing regulations.

1d: Reduce Road Dust from Construction Sites

Mr. Pagett began the discussion by saying that the “Covered Truck Rule” is often violated and that enforcement needs to be done on the streets, where dirt often blows off the tops of trailers hauling away dirt from construction sites. He said that dust reduction measures on job sites, such as gravel and daily sweeping and wash down requirements, are effective at reducing road dust at the site; the problem “arises 5 miles down the road when dirt and dust are blowing off the top of the truck container.” Mr. Pagett said that there should be a requirement to wet down the load before covering it and driving off site. Mr. Lefever and Mr. DeWitt discussed the efficacy of wheel washers versus gravel. Mr. Lefever added that the City of South Gate requires construction sites to have sweepers on site and to sweep if there is dust on the roads in the vicinity of the site. Mr. McMillan added that he thinks these estimates of the amount of road dust may be on the high side.

1e: Expand Street Sweeping

Ms. Mitchell asked if the analysis considered how often streets were being swept at present. Mr. Ang-Olsen responded by saying that the model assumed weekly street sweeping. Mr. Lefever said that the cost to increase street sweeping includes personnel costs, equipment

maintenance, and possibly the purchase of additional equipment. Mr. Garrett and Mr. Havernack asked if the cost estimates used in the analysis assumed the purchase of additional equipment. Mr. Ang-Olsen confirmed that they did. Mr. Pagett and Mr. Lefever then raised the issue of the effectiveness of street sweeping in general, saying that when cars are parked along the side of the road, the street sweeper is unable to get to the road dust, and it collects in the catch basins. They both agreed that moving to a vacuum street sweeper is more effective. Mr. McMillan added that SCAQMD has a grant program for cities to help defray the cost of alternative fuel vacuum street sweepers. There was discussion regarding the sources of road dust; while a big contributor to road dust is break and tire wear, this measure is specifically targeting reintrained road dust, which does not come from break and tire wear.

Mr. McMillan pointed out that the measures discussed thus far all target primarily PM2.5; however, in 2035, more than 50% of PM2.5 will come from secondary sources. He suggested that targeting NOx, which is a precursor to secondary PM2.5 such as ozone, is a more efficient way to reduce PM2.5 sources in 2035, particularly because the primary PM2.5 measures discussed thus were not found to be very cost efficient. He noted that the Gateway Cities subregion is a large contributor of NOx within the South Coast Air Basin. Mr. Ang-Olsen confirmed this and noted that this was the reason that NOx was included in the inventory.

1f: Reduce Emissions from Glass Manufacturing

Mr. Ang-Olsen started the discussion by noting that there is some uncertainty regarding the numbers associated with this measure because some of the glass manufacturing plants may have closed since the inventory used in the analysis was compiled. Mr. McMillan confirmed this, saying that SCAQMD is in the process of updating the inventory.

Mr. Lefever asked why the City of South Gate is shown on the map as a major source of arsenic. He noted the location of a significant red dot and reported that this is the location of chemical companies, mixers, and asphalt blenders. He questioned the accuracy of the map because the area noted as a large source of arsenic (the red dot) is not home to any glass manufacturers. Mr. McMillan again referenced the updating of the inventory. He and Mr. Lefever agreed to talk after the meeting.

On Road Vehicle Measures

2a. Accelerate Zero and Near-Zero Emission Vehicle Adoption (light duty)

Mr. Ang-Olsen started off by noting that this measure is not very cost effective, and it is more suited to reducing greenhouse gasses than addressing DPM. He also noted that in 2035, most vehicles will be zero or near-zero emissions vehicles. Mr. Lefever asked specifically about the Chevy Volt and asked if the manufacturing of the vehicle's components offsets the environmental benefits. He asked if the process to manufacture a clean air vehicle is "dirtier" than the emissions from a regular gasoline powered car. There was discussion regarding the manufacturing process to make batteries for electric vehicles,

at the end of which Mr. McMillan asserted that research shows it is “worth it” to make the battery when the full lifecycle cost of the battery is accounted for. There are after-market uses for electric vehicle batteries beyond their use in electric vehicles, which helps to offset the environmental “cost” to produce them as well as the monetary cost to dispose of them. Mr. Ang-Olsen said that the analysis of this measure did not consider the process to manufacture the zero and near-zero emission vehicles; the analysis focused on tail pipe emissions.

Mr. McMillan questioned the calculation on Slide 29 estimating that by 2035 only 17% of light duty vehicles will be zero emissions vehicles.

2b: Zero Emission Port Trucks

Mr. Ang-Olsen noted that this measure would require both incentives and regulations (“a carrot and a stick”). Mr. Havernack asked for more information regarding the commercialization study. Mr. Wood explained that the GCCOG is examining ways to accelerate the deployment of zero emission trucks into the market, which requires incentives and collaboration with the truck manufacturing industry original equipment manufacturers (OEMs) to develop uses for zero emission trucks beyond the ports. Mr. Garrett asked if the cost analysis of this measure assumed the same lifetime of use as a regular diesel powered truck. Mr. Ang-Olsen responded that the lifetime of the truck was estimated to be the same, but not the battery. Mr. Wood added that the possible after-market uses for the batteries influences the cost associated with this measure, but that he uses twice (2x) the cost of a regular truck as a guide when estimating the cost of green trucks.

2c: Low Emission Trucks in Gateway Cities Communities

Discussion on this measure began with a note that the costs of this measure were estimated using 2010 truck standards, and that the EPA is currently considering adopting new standards. If new standards are adopted, the cost estimate associated with this measure would no longer be accurate. Mr. McMillan noted that non-port trucks are the biggest source of NOx and the hardest to regulate; he said that the most effective measure will be to accelerate the commercialization of zero emission trucks. Mr. Wood agreed, adding that large fleets such as FedEx and UPS are moving towards green fleets on their own because of the cost savings and the benefit to company image. Mr. McMillan followed Mr. Wood's comments by saying that NOx emission levels must decrease by 80% between now and 2035 in order to achieve compliance with air quality standards; achieving this will require wide scale adoption of clean trucks in the near future.

Mr. Garrett remarked on the need to be strategic in the application of electric vehicle technology. He cited the example that EVs are well suited for stop-and-go urban traffic, but not necessarily over long distances. He also described the federal Clean Air Act as an example of the “best practice” for reducing air pollution. He cautioned against developing regulations that are too prescriptive, but encouraged regulatory authorities to set the standard for air quality and rely on private industry to develop the most cost effective technology to meet the standard.

2d: Alternative Fuel Infrastructure for Trucks

Ms. DeSantis posed a question regarding the role of the GCCOG in deploying the infrastructure necessary to support clean fuel vehicles. Mr. Wood agreed that the COG does have a role, which is to advocate for and coordinate land use and infrastructure planning to support clean fuel vehicles. Mr. Lefever and Mr. Garrett discussed the financial benefits to cities and other public agencies, with Mr. Garrett noting that, to his knowledge, there are no road taxes placed on the sale of alternative fuels. Mr. Lefever talked about the added cost of road maintenance to cities along preferred truck routes and remarked that cities receive no financial support from goods movement operators. Mr. Wood affirmed his observation.

Evenor Macias asked if deploying alternative fuels infrastructure would cause the use of more fossil fuels; i.e. burning fossil fuels to make electricity for the Grid that will be used to charge electric vehicles. Mr. Wood and Mr. Ang-Olsen said that this was not an issue over the lifetime of a vehicle, and that for EVs much of the electricity would come from solar power or from the Grid, which has a cap on how much power can be generated from fossil fuels.

2e: Heavy-duty Truck Inspection and Maintenance Program

Mr. Pagett, Mr. Wood, and Mr. Garrett discussed the possibility of requiring emissions tests on trucks operating in California similar to the 2 year emissions tests that are required for passenger vehicles. Mr. Garrett voiced concern that this would force trucks out of the state of California and said that the State of California cannot impose this type of regulation on commercial trucks due to the interstate commerce provision in the U.S. Constitution, which gives the U.S. Congress regulatory authority over trade between states. Mr. Ang-Olsen agreed, saying that this measure would require action at the federal level.

Off Road Mobile Source Measures

3a. Advanced Technology for Port Cargo Handling Equipment

Mr. Garrett and Mr. Havernack began the discussion on this measure. Mr. Havernack said that he did not think that use of alternative fuels /zero emission cargo equipment should be written into lease agreements. Rather, he suggested incentivizing their use. Mr. Garrett said that at present, there is no demonstrated viability of this type of cargo equipment and that its use remains a long term measure. Mr. Garrett suggested beginning this type of effort with a standard that is achievable in the near term, such as hybrid or clean diesel, which he views as technologies that can form a bridge to new fuel alternatives as battery technology improves. Mr. Havernack agreed, saying that the ports are encouraging the development of technology, including hybrid, hybrid electric and hydrogen fuel cell, through their Technology Advancement Program. He said that by 2035, the technology should be available and can be widely implemented through the use of incentives. Mr. Ang-Olsen and Mr. Garrett agreed that there was a lot of uncertainty in the cost estimates generated during this

analysis. The discussion continued with some debate over the role of the GCCOG, which all agreed was monitoring and advocacy.

3b. Control of At-Berth Ship Emissions

Mr. Garrett began the discussion on this measure. He stated that working to reduce emissions from ships themselves is a more efficient plan than focusing only on emissions while at dock/in port. Mr. Havernack asserted that this measure was important because it would address emissions from ships that are infrequent callers. Both men agreed that focusing only on pollutants emitted by ships in port is misguided because ships are in port for a very short time. Mr. Garrett said that making modest changes to ocean going vessels (OGVs) will yield far more efficient reduction measures and have a greater impact on air quality than continually adding on technologies at the berth/on the dock, which is the least cost effective measure.

3c. Install Clean Ship Engine Technologies

There was debate regarding whether EPA Tier III Standards apply to OGVs that are U.S. Flagged vessels versus all vessels that call on U.S. Ports. Mr. Garrett said that the EPA Tier III standards are the same as the IMO standards and these standards apply to both harbor-craft and OGVs. Mr. Ang-Olsen said that the technologies that were considered, water scrubbers and selective catalytic reduction similar to what has been used on diesel trucks, are not cost effective because the technology has not been commercially developed for widespread use on ships; therefore this is a long term/future measure.

Mr. Ang-Olsen said that because clean ship technology has not been developed to the degree necessary to be both efficient and cost effective, cost estimates were not developed for this measure. Mr. Garrett said that by 2016, the Tier III standards will apply to all ships; therefore, he encouraged Mr. Ang-Olsen to recalculate 2035 pollution levels based on the turnover that will occur in the global fleet of OGVs between 2016 and 2035. Ms. DeSantis invited Mr. Garrett to please submit his observations and suggestions in detail. Douglas Drummond said that the Ports are incentivizing cleaner ships technology by reducing tariff charges to ships that use emissions reduction measures, which Ms. DeSantis noted was an important point.

Ms. DeSantis and Mr. Ang-Olsen suggested that the remaining three measures be considered together because of time constraints.

3d. Emission Controls for Pleasure Boats

3e. Low/Zero Emission TRUs

3f. Low-emission Equipment for Public Construction Contracts

Mr. Pagett said that he thinks the low-emissions construction equipment requirement for municipal projects will triple the cost of smaller projects, but could be feasible on larger projects. Mr. McMillan emphasized the importance of reducing NOx emissions. He stated

that NOx reduction needs to be a priority because it is a toxic emission as well as a precursor to secondary PM2.5; therefore, reducing NOx also helps reduce PM2.5 (“2 for 1”).

Ms. DeSantis then polled each member and asked them to identify which of the measures they see as the highest priorities.

- Mr. McMillan identified the measures to address emissions from OGVs since they are the largest source of NOx in 2035. He also identified the truck measures as important and cited the goal to have 100% zero emission trucks in use at near dock rail yards. Mr. Havernack seconded Mr. McMillan’s priorities because they also address DPM emissions.
- Mr. Drummond said that the priority measures should be those that will have the greatest impact on air quality. He said the GCCOG should focus on incentivizing on and off-road emissions reduction measures to accelerate their adoption.
- Mr. Garrett said that measures to accelerate the adoption of cleaner technologies through encouraging turnover in fleets is a valid approach, but “the end point is static;” i.e., the regulatory agencies should establish a fixed air quality standard and rely on private industry to develop the technology needed to achieve it. Regulation should not prescribe the path to meet air quality goals. Mr. Wood agreed, saying the primary goal of the COG could be to reach the clean air targeted goals faster by encouraging innovation in technology at an increasingly rapid rate.
- Mr. Pagett said that the charbroiling and wood burning PM2.5 measures will be difficult to implement, and the effort will fall to the cities to enforce this type of regulation, such as the retrofitting of wood burning fire places with gas lines. He suggested calling upon the gas companies to help fund fireplace retrofits since they will benefit from the increase in gas usage. Mr. Pagett cautioned against imposing any regulations for which there is no funding and expressed concern over driving industry out of the Gateway Cities region. He reminded the group of the delicate balance between restricting emissions to improve air quality with the need to keep industry in the region as a source of employment. He said that both of these issues, air quality and employment, are important to people’s quality of life.
- Mr. Pagett and Mr. Lefever commented on the role of cities in promoting infrastructure to support electric vehicles. Mr. Lefever noted a distinction between wealthier and poorer communities and said that in communities like South Gate, where most vehicles operating are older; there may be less incentive to install alternative fueling stations. Mr. Pagett described the EV infrastructure role out approach used by the City of Long Beach in which the City has turned over installation of EV charging stations to a commercial operator, and the City draws a tax from the sales; however, thus far there have not been a sufficient level of electric vehicles in use to justify commercial investment in charging stations by the commercial operator.

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- Mr. Masis cited wood burning and charbroiling measures as important. Chairman DeWitt countered that there may be unintended consequences if restrictions are placed on business owners, such as restaurants using charbroiling. Mr. Lefever echoed Mr. DeWitt's concern; he identified a typical approach to imposing regulations, which is to restrict practices by larger commercial operators while exempting the "mom and pop" operators; however, he noted, the majority of employment opportunities come from the commercial operators, not from smaller, family run operations.
- Mr. Havernack identified the measures to address DPM from trucks and ships (OGVs) as being most important. He echoed earlier discussion on these measures and emphasized the need to set the standard for air quality, but not to prescribe the technological path to get there. He affirmed the role of the GCCOG, which is to build upon the efforts of the ports' technology programs, and reiterated that everyone concerned: the ports, shipping industry operators, and residents of the Gateway Cities would be best served by remaining open to advances in technology that may be commercially developed to help achieve the end goals for air quality.

Concluding the discussion, Ms. DeSantis thanked everyone for their participation and input.

D. COG Engineer's Report - Oral Report by Jerry Wood

Mr. Wood's comments were combined with meeting schedule review.

VIII. MEETING SCHEDULE REVIEW

Mr. Wood reminded everyone of the final meeting on May 29th when the AQAP Strategy and final recommendations will be presented to the Environmental Committee, and the final meeting on June 4th, when the AQAP will be presented to the COG's Transportation Committee and Board of Directors.

IX. COMMENTS FROM ENVIRONMENTAL COMMITTEE CHAIR AND MEMBERS

There were no further comments

X. ADJOURNMENT

Mr. DeWitt adjourned the meeting at 8:50 PM.

VII. STAFF REPORTS

ITEM C

Gateway Cities Air Quality Action Plan (AQAP)

Staff Report

TO: Environmental Committee
FROM: Richard, Powers, Executive Director, Gateway Cities COG
BY: Karen Heit, Transportation Deputy, Gateway Cities COG
SUBJECT: Air Quality Action Plan FINAL REPORT

Background

The Air Quality Action Plan (AQAP) has its roots in the process that began more than 10 years ago to develop a proposal to improve, and modernize the I-710 freeway. Through the project development process – the community became acutely aware of the denigrated air quality due to truck traffic and congestion on the I-710 freeway and the associated public health impacts on area residents. In 2001, the I-710 Major Corridor Study was initiated to explore the feasibility of options for improving the freeway. The Oversight Policy Committee (OPC) advised the Gateway Cities Council of Governments and the Los Angeles County Metropolitan Transportation Authority (MTA) on the results and recommendations from the I-710 Major Corridor Study. A separate report, “The I-710 Tier 2 Community Advisory Committee Final Report” recommended additional findings and guidance to the OPC. After an extensive public input process. The OPC established guiding principles for the study; one of which was to:

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.

The OPC also requested, upon approval of the I-710 Major Corridor Study in 2005, that the GCCOG initiate the development of an Air Quality Action Plan for all of Gateway Cities that would focus on the following five 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 a conceptual plan to implement and measure air quality improvements for the region.
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.

The first phase for the development of AQAP was completed in 2007 and documented in a *Preliminary Report*.¹ The AQAP *Preliminary Report* contained a review of air quality improvement measures that were proposed and/or approved during 2004–2006, an outline of recommended content of the AQAP, and a list of recommendations for early actions that I-710 stakeholders could take to improve air quality while the full AQAP was

being developed. The full AQAP study was initiated in 2010 and will be completed in June 2013.

What the AQAP Is, and Is Not

While the AQAP study has produced material to inform the development of the I-710 EIR/EIS and the AQAP study also makes use of some I-710 EIR/EIS technical studies, the AQAP is separate and distinct from the I-710 EIR/EIS in several key respects.

- First, the AQAP is not a California Environmental Quality Act (CEQA) or National Environmental Policy Act (NEPA) document. It was prepared to inform the Gateway Cities and other stakeholders about air quality and health risk issues at a subregional level, not to satisfy any legal or regulatory requirements.
- Second, the geographic scope of the AQAP encompasses the entire Gateway Cities sub-region, which includes the I-710 corridor & other projects.
- Third, the AQAP considers the air pollution and health impacts of *all* emissions sources, not just from roadways or transportation.

Stakeholder Input

The AQAP study has involved the efforts of state and regional air quality agencies, the Ports, elected officials, environmental and health services professionals, private sector transportation and goods movement representatives, and community and environmental advocates. Input and guidance from these stakeholders has helped to shape the study methodology and results. Specifically, the study received feedback and guidance from a number of groups:

Technical Working Groups

An initial step in the AQAP study was the preparation of a *Modeling Protocol Report*. The air quality modeling and health risk assessment portions of the study are technically complex and could be conducted using a variety of methodological options. The *Modeling Protocol Report* was prepared to ensure transparency and allow communication on technical issues among various stakeholders, and to facilitate consensus on the technical tools and methodologies to be employed throughout the study. Development of the *Modeling Protocol Report* was done with input from the AQMD, the California Air Resources Board (ARB), the U.S. Environmental Protection Agency (EPA), the Port of Los Angeles, and the Port of Long Beach and was finalized in 2011.

Technical Roundtable – a technically focused group consisting of representatives of federal, state, regional, and local government agencies. This Roundtable advises the Environmental Committee (EC) on technical aspects of the AQAP projects and programs.

Gateway Cities Environmental Committee - This committee provides policy direction and final recommendations for the AQAP to the Gateway Cities Transportation Committee. The chair of the Environmental Committee is Councilman William DeWitt of South Gate. The committee is comprised of the

Health Deputies from the Los Angeles County Board of Supervisors; representatives from the Gateway Cities City Managers, Public Works, and Planning Directors Committees; Long Beach Public Health Department; representatives from the Gateway Cities Technical Advisory Committees for the SR-91/I-605I-405, I-5 and I-710 corridors; and members selected from the AQAP Roundtables. The Environmental Committee received briefings on the AQAP and provided recommendations and feedback.

Issue

The GCCOG initiated the development of an Air Quality Action Plan for all of Gateway Cities that would focus on the following five objectives:

1. Determine and quantify the 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 a conceptual plan to implement and measure air quality improvements for the region.
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.

The issue before the Environmental Committee is: Does the AQAP study meet the five objectives established by the OPC when it requested the study?

The staff determined that the AQAP study does meet the five objectives established by the OPC, as described below.

1. Determine and quantify existing air and health quality setting.

The AQAP study found significant levels of air pollution and adverse health impacts for the base year of analysis (2009). The pollutants of greatest concern are PM_{2.5} and DPM.

In 2009, air quality modeling shows that much of the Gateway Cities experienced annual average PM_{2.5} concentrations greater than 15 µg/m³, (1 µg (micro gram) = 1*10⁻⁶ grams) compared to the current federal standard of 12 µg/m³. The highest modeled concentration in 2009 was 41.6 µg/m³. Virtually all the sub-region north of SR-91 and along the I-710 exceeded the federal PM_{2.5} standard in 2009.

In terms of DPM, the modeled annual average 2009 concentration across the Gateway Cities was 3.9 µg/m³ and the highest was 15.1 µg/m³. The Gateway Cities average DPM concentration was more than five times the national average for urban areas and more than double the Los Angeles County average in 2009.

Table 1 presents a summary of the estimated 2009 air pollution health risks. Across the entire Gateway Cities, the 2009 lifetime cancer risk from air pollution was 1,328 per million, higher than the average cancer risk in most other metropolitan areas included in

the EPA's NATA study. The highest air pollution cancer risk in the sub-region was 5,032 per million. The Gateway Cities average risk for mortality (premature death) due to PM2.5 was 503 per million. PM2.5 was also found to cause unscheduled hospitalizations for respiratory and cardiovascular problems among residents age 65 and older.

Table 1. Summary of 2009 Air Pollution Health Risk

| Health Risk Type | | Gateway Cities Average Risk in 2009 (per million) | Gateway Cities Maximum Risk in 2009 (per million) |
|-------------------|--------------------------------------|---|---|
| Cancer Risk | Residents | 1,328 | 5,032 |
| | Non-Resident Workers | 259 | 983 |
| PM2.5 Health Risk | Mortality (30+) | 503 | 1,741 |
| | Respiratory Hospitalization (65+) | 298 | 574 |
| | Cardiovascular Hospitalization (65+) | 192 | 368 |

2. Determine effectiveness of planned near-term air quality improvements.

The first phase of the development of AQAP was completed in 2007 and documented in a *Preliminary Report*.ⁱⁱ The AQAP *Preliminary Report* contained a review of air quality improvement measures that were proposed during 2004–2006. The **Compendium Update Report**, completed during the second phase of the study, provides an update on the proposed improvement measures. The Compendium Update Report found that, of the 154 measures listed in the original Compendium,

- 106 have been fully implemented
- 31 have been partially implemented
- 17 have not been implemented

Due largely to the implementation of these measures, the AQAP study found that air quality in the Gateway Cities is projected to improve significantly by 2035, with corresponding reductions in health risk. Between the time that the AQAP was first requested in 2005 and the AQAP analyses was completed in 2011–2012, many new rules and regulations were adopted by EPA, ARB, and AQMD to control air pollutant emissions. In particular, these regulations target all the major sources of diesel emissions—including heavy duty trucks, ships, off-road construction equipment, cargo handling equipment, and railroad locomotives. As these regulations take effect over the next two decades, they will result in large reductions in diesel emissions. The Ports have also implemented a number of programs and projects that are reducing emissions. Additionally, the proposed I-710 Zero Emission Freight Corridor (used by trucks with zero tailpipe emissions), an assumption that is incorporated into the AQAP study, will contribute to further emission reductions.

The projected 2035 annual average PM2.5 concentration will be lower than the federal standard of 12 µg/m³ in nearly all of the Gateway Cities, with the exception of a few

select locations in South Gate, Bellflower, Downey, and Norwalk. The highest concentration will drop from 41.6 $\mu\text{g}/\text{m}^3$ in 2009 to 13.5 $\mu\text{g}/\text{m}^3$ in 2035.

DPM concentrations will also drop dramatically by 2035. Averaged across the entire Gateway Cities, the DPM concentration is predicted to drop from 3.8 $\mu\text{g}/\text{m}^3$ in 2009 to 0.79 $\mu\text{g}/\text{m}^3$ in 2035, a 78% reduction.

Table 2 summarizes the estimated air pollution health impacts in 2035 and the change relative to 2009. The Gateway Cities average cancer risk will be 68% lower than the 2009 estimate. The sub-region average mortality risk due to PM2.5 will decline 59%, and the risk of unscheduled hospitalizations will decline 9%.

Table 2. Summary of 2035 Air Pollution Health Impacts

| Health Risk Type | | Gateway Cities Average in 2035 | | Gateway Cities Maximum in 2035 | |
|-------------------|--------------------------------------|--------------------------------|------------------|--------------------------------|------------------|
| | | Risk per Million | Change from 2009 | Risk per Million | Change from 2009 |
| Cancer Risk | Residents | 420 | -68% | 2,769 | -45% |
| | Non-Resident Workers | 82 | -68% | 541 | -45% |
| PM2.5 Health Risk | Mortality (30+) | 208 | -59% | 359 | -79% |
| | Respiratory Hospitalization (65+) | 271 | -9% | 322 | -44% |
| | Cardiovascular Hospitalization (65+) | 174 | -9% | 207 | -44% |

3. Analyze and determine possible new (or emerging) air quality improvements or strategies, including estimated costs, time-lines, and responsibilities.

The AQAP **New Measures Analysis Report** describes the analysis of 18 potential new measures to further improve air quality in 2035 in terms of emissions benefits, costs, and cost-effectiveness (selected from 53 potential new measures).

The largest PM2.5 emission reductions can be achieved through measures to address charbroiling and residential wood burning. The largest DPM reductions come from the measures targeting heavy duty trucks. The largest NO_x reductions come from measures targeting ships and also heavy duty trucks.

If all 18 analyzed measures were implemented to the maximum extent possible, the suite of measures would reduce 13% of PM2.5 emissions, 53% of DPM emissions, and 23% of NO_x emissions in the sub-region. These reductions are on top of the reductions already projected to occur due to the implementation of adopted regulations and planned improvement projects like the I-710 Zero Emission Freight Corridor.

In addition to these potential new measures with long-term benefits, AQAP study also assessed several near-term measures under local control that can be implemented immediately. These “Early Action Items” were developed as part of the *Early Action Plan Report* and could be implemented immediately or within a very short time horizon. They include:

- Require Low-Emission Equipment for Public Construction Contracts
- Enforce Anti-Idling Regulations
- Reduce Exposure of Sensitive Receptors to Diesel Exhaust
- Expand Air Quality Monitoring along the I-710 Corridor

Taken together, these potential New Measures and the Early Action Items, as well as related documents and resources, constitute a “toolkit” available to the GCCOG members cities, other public agencies, community groups, and businesses that are interested in furthering air quality and public health improvements in the Gateway Cities. This toolkit should be considered a living resource, to be expanded and refined over time as new measures and programs are identified and recommended measures are implemented and not an obligation or a requirement for local communities, GCCOG or other agencies to implement.

4. Develop a conceptual plan to implement and measure air quality improvements for the region.

The AQAP Final Report, together with the various interim AQAP work products, constitute this conceptual plan. At the time the AQAP was first conceived in 2005, there were limited controls on diesel emissions and concern about air pollution in the Gateway Cities had reached a peak. As noted above, many new rules and regulations to control air pollutant emissions were adopted between 2005 and the beginning of the AQAP analysis in 2011. As a result of these regulations, Port programs, and new projects such as the I-710 Zero Emission Freight Corridor, the AQAP study estimates large improvements in air quality in the Gateway Cities by 2035.

The AQAP toolkit of New Measures and Early Action Items is available to GCCOG members, other public agencies, community groups, and businesses that are interested in implementing additional air quality and public health improvements in the Gateway Cities.

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.

As discussed above, the AQAP study was developed with involvement by state and regional air quality agencies, the Ports, elected officials, environmental and health services professionals, private sector transportation and goods movement representatives, and community and environmental advocates. Input and guidance from these stakeholders has helped to shape the study methodology and results.

Recommended Action

After careful consideration of the process and results of the AQAP development process, Gateway Cities Council of Government staff present the following recommendations:

1. It is recommended that the Environmental Committee make a finding that the AQAP study meets and significantly exceeds all five of the objectives stated by the OPC when it requested the study;
2. It is recommended that the Environmental Committee authorize the staff to move this report forward to the Gateway Cities Transportation Committee and Board of Directors for concurrence

ⁱ Development of the Air Quality Action Plan for the I-710 Corridor: Preliminary Report, Prepared for the Gateway Cities County of Governments, Prepared by Gladstein, Neandross & Associates, June 6, 2007.

ⁱⁱ Development of the Air Quality Action Plan for the I-710 Corridor: Preliminary Report, Prepared for the Gateway Cities County of Governments, Prepared by Gladstein, Neandross & Associates, June 6, 2007.



The Gateway Cities Air Quality Action Plan

Draft Report

May 2013

PREPARED FOR:

The Gateway Cities Council of Governments
Los Angeles County Metropolitan Transportation Authority
(Metro)

PREPARED BY:

ICF International

Executive Summary

Located in southeastern Los Angeles County, the Gateway Cities sub-region is home to more than 2 million residents and 700,000 jobs. The Gateway Cities Council of Governments (GCCOG) is a California joint powers authority made up of 27 cities and the County of Los Angeles. The Gateway Cities sub-region is a locus for much of the trade and transportation that supports the Southern California and national economy. Due in part to the heavy concentration of goods movement and industry in and around the Gateway Cities, the sub-region has historically experienced the adverse impacts of air pollution.

The Gateway Cities Air Quality Action Plan (AQAP) study was first requested by the Oversight Policy Committee of the I-710 Major Corridor Study, which was managed by the Los Angeles County Metropolitan Transportation Authority (Metro). When the I-710 Major Corridor Study was approved in 2005, the Oversight Policy Committee requested that the GCCOG initiate the development of an Air Quality Action Plan for all of Gateway Cities that would focus on the following five 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 a conceptual plan to implement and measure air quality improvements for the region.
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.

The first phase for the development of AQAP was completed in 2007 and documented in a *Preliminary Report*. The full AQAP study was initiated in 2010. The study has resulted in more than 10 interim reports and related work products. The *AQAP Final Report* contains the major findings of the AQAP study. The *Final Report* demonstrates that the AQAP study has complied with all five objectives of the original Oversight Policy Committee motion, as summarized below.

Objective 1. Determine and Quantify Existing Air and Health Quality Setting

The AQAP study found significant levels of air pollution and adverse health impacts for the base year of analysis (2009). The pollutants of greatest concern are fine particulate matter (PM_{2.5}) and diesel particulate matter (DPM). Nitrogen oxide (NO_x) emissions are also a concern because they contribute to regional ozone concentrations as well as formation of particulate matter in the atmosphere.

In 2009, air quality modeling shows that much of the Gateway Cities experienced annual average PM_{2.5} concentrations greater than 15 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), compared to the current federal standard of 12 $\mu\text{g}/\text{m}^3$. The highest modeled concentration in 2009 was 41.6 $\mu\text{g}/\text{m}^3$. Virtually all the sub-region north of SR-91 and along the I-710 exceeded the current federal PM_{2.5} standard in 2009.

In terms of DPM, the modeled annual average 2009 concentration across the Gateway Cities was $4.9 \mu\text{g}/\text{m}^3$ and the highest was $15.1 \mu\text{g}/\text{m}^3$. The Gateway Cities average DPM concentration was more than five times the national average for urban areas and more than double the Los Angeles County average in 2009.

Table ES-1 presents a summary of the estimated 2009 air pollution health risks. Across the entire Gateway Cities, the 2009 lifetime cancer risk from air pollution was 1,328 per million, higher than the average cancer risk in most other metropolitan areas included in a recent U.S. EPA study. The highest air pollution cancer risk in the sub-region was 5,032 per million. The Gateway Cities average risk for mortality (premature death) due to PM_{2.5} was 503 per million. PM_{2.5} was also found to cause unscheduled hospitalizations for respiratory and cardiovascular problems among residents age 65 and older.

Table ES-1. Summary of 2009 Air Pollution Health Risk

| Health Risk Type | | Gateway Cities Average Risk (per million) | Gateway Cities Maximum Risk (per million) |
|-------------------------------|--------------------------------------|---|---|
| Cancer Risk | Residents | 1,328 | 5,032 |
| | Non-Resident Workers | 259 | 983 |
| PM _{2.5} Health Risk | Mortality (30+) | 503 | 1,741 |
| | Respiratory Hospitalization (65+) | 298 | 574 |
| | Cardiovascular Hospitalization (65+) | 192 | 368 |

Objective 2. Determine the Effectiveness of Planned Near-Term Air Quality Improvements

By 2035, air quality in the Gateway Cities is projected to improve significantly, with corresponding reductions in health risk. Between the time the AQAP was first requested in 2005 and the AQAP analyses in 2011–2012, many new rules and regulations were adopted to control air pollutant emissions. In particular, these regulations target all the major sources of diesel emissions—including heavy duty trucks, ships, off-road construction equipment, cargo handling equipment, and railroad locomotives. As these regulations take effect over the next two decades, they will result in large reductions in diesel emissions. The Ports have also implemented a number of programs and projects that are reducing emissions. Additionally, the proposal for an I-710 freight corridor with zero emission trucks (an assumption that is incorporated into the AQAP study) will contribute to further emission reductions.

The projected 2035 annual average PM_{2.5} concentration will be lower than the federal standard of $12 \mu\text{g}/\text{m}^3$ in nearly all of the Gateway Cities, with the exception of a few select locations in South Gate, Bellflower, Downey, and Norwalk. The highest concentration will drop from $41.6 \mu\text{g}/\text{m}^3$ in 2009 to $13.5 \mu\text{g}/\text{m}^3$ in 2035.

DPM concentrations will also drop dramatically by 2035. Averaged across the entire Gateway Cities, the DPM concentration is predicted to drop from $4.0 \mu\text{g}/\text{m}^3$ in 2009 to $0.9 \mu\text{g}/\text{m}^3$ in 2035, a 78% reduction. Figure ES-1 shows the modeled DPM concentrations in 2009 and 2035.

Figure ES-1. Estimated Annual Average DPM Concentrations in 2009 and 2035

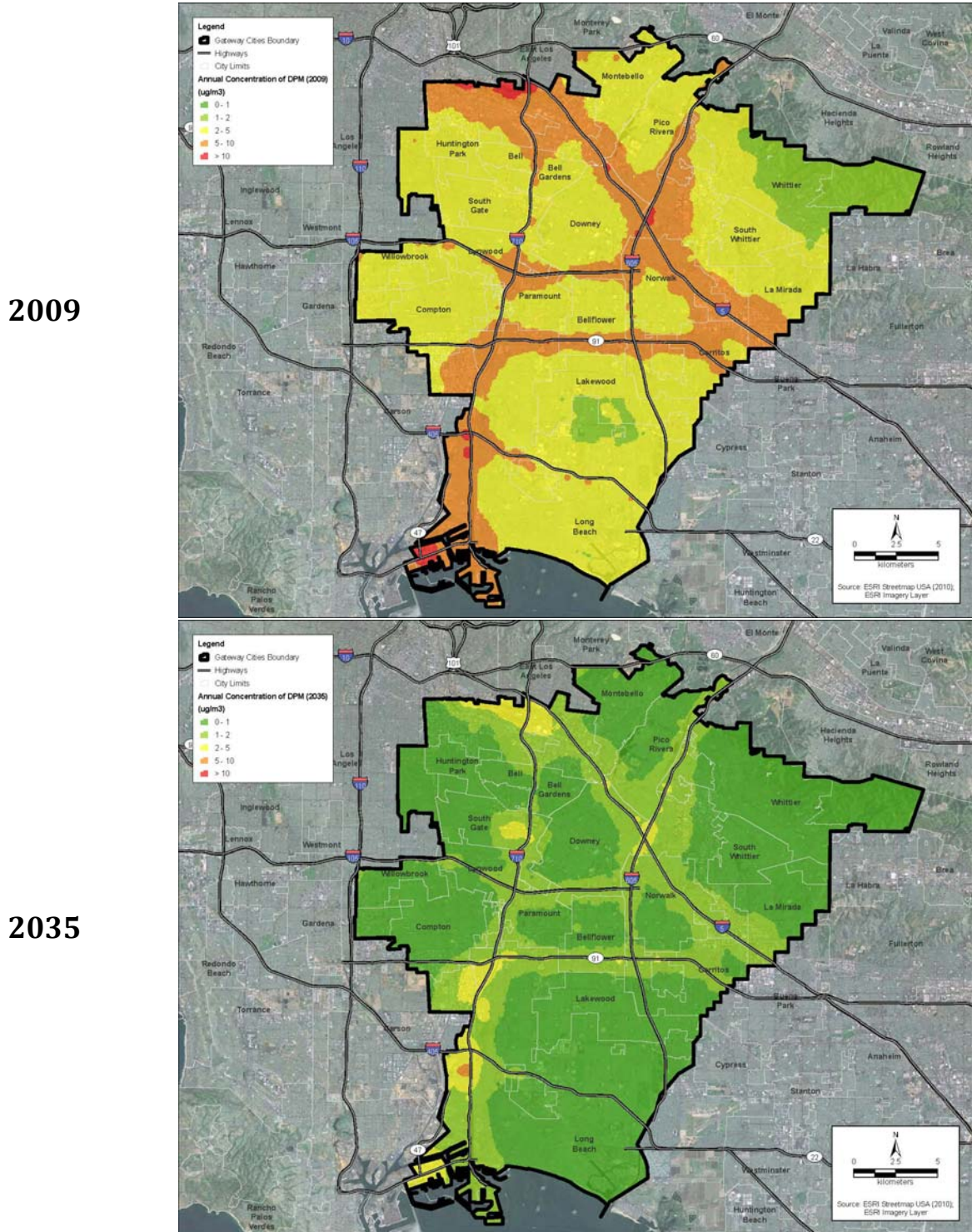


Table ES-2 summarizes the estimated air pollution health impacts in 2035 and the change relative to 2009. The Gateway Cities average cancer risk will be 68% lower than the 2009 estimate. The sub-region average mortality risk due to PM2.5 will decline 59%, and the risk of unscheduled hospitalizations will decline 9%.

Table ES-2. Summary of 2035 Air Pollution Health Impacts

| Health Risk Type | | Gateway Cities Average | | Gateway Cities Maximum | |
|-------------------|--------------------------------------|------------------------|------------------|------------------------|------------------|
| | | Risk per Million | Change from 2009 | Risk per Million | Change from 2009 |
| Cancer Risk | Residents | 420 | -68% | 2,769 | -45% |
| | Non-Resident Workers | 82 | -68% | 541 | -45% |
| PM2.5 Health Risk | Mortality (30+) | 208 | -59% | 359 | -79% |
| | Respiratory Hospitalization (65+) | 271 | -9% | 322 | -44% |
| | Cardiovascular Hospitalization (65+) | 174 | -9% | 207 | -44% |

Objective 3. Analyze and Determine Possible New (or Emerging) Air Quality Improvements or Strategies

The projected improvements in air quality and associated health risk in the Gateway Cities are large. Yet some adverse health impacts will remain, particularly in locations near major transportation facilities. To address these health impacts, new emission control measures can be implemented.

The AQAP study determined that additional air quality and health risk improvements in 2035 can best be achieved through new measures that achieve one or more of the following 6 goals:

1. Reduce Particulate Emissions from Charbroiling and Wood Burning
2. Control Dust Emissions
3. Reduce Arsenic Emissions
4. Accelerate Deployment of Low- and Zero-Emission Trucks
5. Accelerate Deployment of Low- and Zero-Emission Goods Movement Equipment
6. Further Reduce Ocean-Going Vessel Emissions

The largest PM2.5 emission reductions can be achieved through measures to address charbroiling and residential wood burning. The largest DPM reductions come from measures targeting heavy duty trucks. The largest NO_x reductions come from measures targeting ships and also heavy duty trucks.

The AQAP study quantified the emissions benefits in 2035 of 14 potential new control measures. Many of the analyzed measures are scalable, meaning they could be implemented to a greater or lesser extent depending on available funding. If all the analyzed measures were implemented to the maximum extent

possible, the suite of measures would reduce 13% of PM_{2.5} emissions, 53% of DPM emissions, and 23% of NO_x emissions in the sub-region in 2035. These reductions are on top of the reductions already projected to occur due to the implementation of adopted regulations and planned improvement projects like the I-710 freight corridor.

The most cost effective measures to reduce PM_{2.5} emissions are those that target charbroiling emissions, wood burning, and fugitive dust emissions. However, these types of measures do not reduce DPM or most other pollutants of concern. For reducing DPM and NO_x, the most cost-effective approaches are deployment of zero emission transportation refrigeration units (TRUs), natural gas heavy-duty trucks, and plug-in hybrid electric trucks. Measures that target ship emissions can potentially offer large emission reductions but currently appear to have poor cost-effectiveness; research and development is needed to reduce the costs of these technologies.

Objective 4. Develop a Conceptual Plan to Implement and Measure Air Quality Improvements for the Region

Implementation of most new air quality improvement measures would be led by regional or state agencies, such as AQMD, the Ports, or ARB. For such measures, the primary role of Gateway Cities is that of advocate. Table ES-3 lists possible new control measures that would achieve the 6 goals outlined above. The table summarizes the primary implementation steps for each measure as well as the likely role of the Gateway Cities. The last four measures listed in Table ES-3 were developed as part of the *Early Action Plan*; implementation would be led by the municipalities and the GCCOG.

Table ES-3. Summary of Possible New Measures and Implementation Steps

| Goal | Possible New Control Measure | Primary Implementation Steps | Gateway Cities Role |
|--|---|--|---|
| Reduce PM from Charbroiling and Wood Burning | Adopt New Charbroiling Emission Controls | <ul style="list-style-type: none"> AQMD adopt proposed Rule 1138 | <ul style="list-style-type: none"> Education and outreach Advocate for rule adoption Use permitting to require technology adoption for new restaurants |
| | Require Low-Emission Fireplaces and Woodstoves | <ul style="list-style-type: none"> AQMD amend Rule 445 | <ul style="list-style-type: none"> Education and outreach Advocate for rule change |
| Control Dust Emissions | Expand Municipal Street Sweeping to Reduce Road Dust | <ul style="list-style-type: none"> Municipalities increase frequency and effectiveness of street sweeping | <ul style="list-style-type: none"> Increase frequency and effectiveness of street sweeping (if feasible) |
| | Implement Best Management Practices to Reduce Road Dust from Construction | <ul style="list-style-type: none"> AQMD amend Rule 403 | <ul style="list-style-type: none"> Education and outreach Advocate for rule change and increased enforcement (as feasible) |
| | Expand Rules and Best Management Practices to Reduce Dust from Building Construction and Demolition | <ul style="list-style-type: none"> AQMD amend Rule 403 | <ul style="list-style-type: none"> Education and outreach Advocate for rule change and increased enforcement (as feasible) |

| Goal | Possible New Control Measure | Primary Implementation Steps | Gateway Cities Role |
|---|--|---|--|
| Reduce Arsenic Emissions | Adopt New Rules for Glass Manufacturing | <ul style="list-style-type: none"> • AQMD promulgate a rule | <ul style="list-style-type: none"> • Advocate for rule adoption |
| Accelerate Deployment of Low- and Zero-Emission Trucks | Encourage Zero-Emission Port Trucks | <ul style="list-style-type: none"> • Ports require zero emissions vehicles • ARB or CEC expand grant funding • Metro require zero emission trucks for I-710 freight corridor | <ul style="list-style-type: none"> • Advocate for funding to offset truck purchases |
| | Encourage Low-Emission Trucks in the Gateway Cities Communities | <ul style="list-style-type: none"> • ARB or CEC expand grant funding | <ul style="list-style-type: none"> • Advocate for federal or state funding |
| | Provide Alternative Fuel Infrastructure for Trucks | <ul style="list-style-type: none"> • ARB or CEC expand grant funding | <ul style="list-style-type: none"> • Advocate for new funding • Support new fueling infrastructure through permitting or cooperation |
| Accelerate Deployment of Zero-Emission Goods Movement Equipment | Replace Diesel Yard Hostlers with Hybrid and Electric Alternatives | <ul style="list-style-type: none"> • Ports expand requirements for clean CHE technologies in terminal leases | <ul style="list-style-type: none"> • Advocate for expanded Port and/or state programs |
| | Electrify Rubber Tire Gantry Cranes | <ul style="list-style-type: none"> • Ports expand requirements for clean CHE technologies in terminal leases | <ul style="list-style-type: none"> • Advocate for expanded Port and/or state programs |
| | Promote Zero-Emission Transport Refrigeration Units | <ul style="list-style-type: none"> • AQMD or ARB establish new grant funding for TRUs | <ul style="list-style-type: none"> • Advocate for expanded Port and/or state programs |
| Further Reduce Ocean-Going Vessel Emissions | Expand Control of At-Berth Ship Emissions | <ul style="list-style-type: none"> • Ports install additional shore-side electrical infrastructure • Ports establish incentives for marine shipping lines • Ports require additional shore power or exhaust bonnets in terminal leases | <ul style="list-style-type: none"> • Advocate for expanded Port and/or state programs |
| | Develop and Deploy Clean Ship Engine Technologies | <ul style="list-style-type: none"> • Ports continue research and development of ship technologies • Ports incentivize use of feasible technologies | <ul style="list-style-type: none"> • Advocate for expanded Port and/or state programs |

| Goal | Possible New Control Measure | Primary Implementation Steps | Gateway Cities Role |
|--------------------|--|--|---------------------|
| Early Action Items | Require Low-Emission Equipment for Public Construction Contracts | <ul style="list-style-type: none"> • Cities include clean construction requests and/or requirements in bid specifications • Use Metro’s Green Construction Policy as model, if feasible • GCCOG provide information on funding opportunities for construction fleets | |
| | Enforce Anti-Idling Regulations | <ul style="list-style-type: none"> • Cities adopt ordinances to empower law enforcement to enforce state idle rule • GCCOG work with ARB to develop MOU • Cities provide training and education on idle limits and enforcement options | |
| | Reduce Exposure of Sensitive Receptors to Diesel Exhaust | <ul style="list-style-type: none"> • Cities identify locations of sensitive receptors using <i>Sensitive Receptors by City</i> report • Consult ARB and AQMD resources on reducing exposure of sensitive receptors • Encourage HVAC filter retrofits in conjunction with building energy efficiency upgrades • Designate truck routes that avoid sensitive receptors | |
| | Expand Air Quality Monitoring Along the I-710 Corridor | <ul style="list-style-type: none"> • GCCOG coordinate for sub-region and work with AQMD to expand monitoring network | |

Objective 5. Develop Consensus for the Plan

The AQAP study was developed with involvement by state and regional air quality agencies, the Ports, elected officials, environmental and health services professionals, private sector transportation and goods movement representatives, and community and environmental advocates. Input and guidance from these stakeholders has helped to shape the study methodology and results.

This draft AQAP Report is being presented to the Gateway Cities Environmental Committee for approval, and subsequently to the Gateway Cities Transportation Committee and Board of Directors.