Welcome to the Gateway Cities AQAP

Environmental Committee

September 28, 2011
Item VII A – The Gateway Cities AQAP Project Update

Environmental Committee
September 28, 2011
Project Update

- AQAP 101 Review
- Schedule, Overall Status
- Participation Framework Status and Reviews
The AQAP was conceived in the I-710 EIR/EIS Process.

**I-710 EIR/EIS**
Environmental Impact Report/Study for the I-710 corridor improvement project
Is for I-710 Corridor Only

**AQAP**
Develop a toolkit of AQ improvement strategies for the entire GCCOG
Is not a CEQA document
Is for the entire GCCOG
I-710 EIR/EIS and AQAP Scope of Work Relationship

I-710 EIR/EIS

• Technical Studies
  • Noise
  • AQ/HRA
  • Comm. Impact Assessment
  • and many more

Gateway Cities AQAP

• Emissions Inventory
• AQ/HRA
• Develop AQ Strategies
• Compendium Update
• CMNA
• I-710 HIA
• I-710 Construction Staging and Phasing
• I-710 Near Roadway Modeling (Ulrafines)
I-710 EIR/EIS and AQAP Scope of Work Relationship

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- Technical Studies
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**Gateway Cities AQAP**
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  - I-710 Near Roadway Modeling (Ultrafines)

*The AQAP tasks indicated are scheduled to be completed by the end of November for consideration in the Draft I-710 EIR/EIS*
Project Study Areas

I-710 Corridor

Gateway Cities COG Subregion
Project Study Areas

- **I-710 Corridor**
  - I-710 EIR/EIS
  - Numerous Technical Studies (Noise, AQ/HRA)
- **I-710 HIA**
- **I-710 Near Roadway Modeling (Ultrafines)**
- **I-710 Construction Staging and Phasing**

Scheduled to be completed in time for consideration in the Draft I-710 EIR/EIS
AQAP Toolkit Development Process

1. Compendium Update
2. Early Actions
3. AQ/HRA Protocol
4. Emission Inventory
5. AQ/HRA
6. AQ Strategies
7. Hot Spot Assessment

Sources:
- Traffic (includes I-710)
- Industry
- Rail
- Ports
- Powerplants etc.

Notes:
- CSP - I-710 Construction Staging and Phasing
- Ultra - Ultrafines Research
- CMNA - Community Medical Needs Assessment
- HIA - Health Impact Assessment
Note: Tasks shown in gold are scheduled to be completed in time for consideration in the I-710 EIR/EIS
## Technical Tasks

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<th>Task</th>
<th>Status</th>
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<td>Health Risk Assessment</td>
<td>In Process</td>
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<tr>
<td>Develop Air Quality Strategies</td>
<td>Task starts in 2012</td>
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<tr>
<td>Analysis of New Air Quality Measures</td>
<td>Task starts in 2012</td>
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<td>Early Action Support</td>
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<tr>
<td>Develop AQAP Report</td>
<td>Task start in April 2012</td>
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<td>Public Outreach</td>
<td>In Process</td>
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Impacts from I-710 Construction Staging and Phasing

- Modeling near complete
- Updating model with revised population data for construction equipment (age, hp, qty.) from CARB
- Discussed Key Findings at September Roundtables
- Initial Results today, then Trans. Comm. and GCCOG BOD in October
Objectives

Estimate emissions for a reasonable foreseeable concept of construction staging and phasing of the I-710 corridor improvements

• Duration of Project (2018 – 2034) = 17 years

• Actual duration dependent on funding
1. Use construction data from GCCOG Construction Staging/Phasing concept report for each segment
   a. Area disturbed, project length and/or area, project duration, soil hauling, acres disturbed per day,
   b. Duration of each stage and phase within segment
2. Input construction data into the enhanced Roadway Construction Emissions Model
3. Output daily and monthly average and peak daily emissions on a month by month basis for each of seven construction segments
Preliminary Findings

Peak PM10 Emissions (lbs/day)

Peak $PM_{10}$ Daily Emissions for Any One Segment

Most PM10 generated from construction fugitive dust
Preliminary Findings Continued

NOx, PM10 and PM2.5

- Only segments 3-7 show exceedance of regional significance threshold, but only 10-20% of the construction period

- Analysis is developed for each segment and changes at the local scale (geometry, interchanges) will not impact the emission findings

Robust analysis is useful for air quality modeling

- Detailed info for specific times and locations for each pollutant of concern
Next Steps

• Updating now with revised CARB OFFROAD model information (received August 2011)
  • Update primarily to equipment population and load factors
• Health risk of the toxics addressed in HRA
I-710 Health Impact Assessment

- Conducted 3rd HIA TWG
- Draft Scope Considered during July and August Roundtables, Updates to EC, Trans. Comm, and COG BOD
- Final Scope of Work Completed
- Draft Report under review
- Final findings presented to RTs, EC, TC and BOD in Oct/Nov
Early Action Items for Local Gov’t

- Completed evaluation of status of Early Action Items
- Initiated Research on remaining Early Action Implementation.
- Conducted Workshop with PDs and PWs
- Initial Findings in January
## AQAP Project Overview Schedule

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<td>Task 5 - Health Risk Assessment for the AQAP Study Area</td>
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AQAP Participation Framework Committees Update
Participation Framework

SEPTEMBER

Committee Update Format:
• Participants
• Topics
• Comments
• Responses

I-710 Project Team
September 28th

GCCOG Board
October 5th

Transportation Committee
October 5th

Environmental Committee

AQAP Roundtables

AQAP Technical Working Groups

HIA September 26th

September 14th/15th
September 10th Technical Webinar
Participation Framework

TOPICS:
I-710 Near-Roadway Modeling Final Report Findings
I-710 Ultrafines Final Report Findings
I-710 Construction Staging Emissions Presentation and Discussion
I-710 HIA Noise Chapter and Status Report Presentation

September 14th/15th
September 10th Technical Webinar

September 28th
October 5th

AQAP Technical Working Groups
HIA September 26th

AQAP Roundtables

I-710 Project Committee

I-710 Related Elements

Transportation Committee

Environmental Committee

GCCCOG Board

August 26th
HIA Report: Overview and Draft Chapters:
- Mobility
- Air Quality,
- Traffic Safety
- Neighborhood Resources
- Jobs and Economic Development

May 12th, May 26th, July 11th, August 29th, September 26th, October 3rd
Participation Framework

- AQAP Technical Working Groups
  - HIA September 26th

- AQAP Roundtables
  - September 14th/15th
  - September 28th

- I-710 Project Committee
  - I-710 Related Elements
  - September 14th/15th
  - September 28th

- Environmental Committee
  - October 5th

- Transportation Committee
  - October 5th

- GCCCOG Board
  - October 5th
AQAP Participation Framework
TRT Update

• AQAP Project Update
  o I-710 Near-Roadway Modeling **Final** Report Findings
  o I-710 Ultrafines **Final** Report Findings
  o I-710 Construction Staging Emissions Presentation and Discussion
  o I-710 HIA Noise Chapter and Status Report Presentation

• Roundtable Discussion
  o I-710 HIA – Noise Chapter

September 14th Meeting
I-710 Construction Phasing and Staging Emissions Report Findings:

**Comment:** Concrete may pile up at the work site; if the concrete is not covered, it could produce a significant amount of dust. Do projections of the PM 10 & 2.5 emissions include fugitive dust from construction debris?

**Response:** Studies have shown fugitive dust can be reduced by 50% when watered every four (4) hours and up to 74% when watered every two (2) hours. Surfactants such as calcium chloride that when applied to fine dirt bonds with the soil and prevents it from becoming airborne when blown by the wind.
I-710 Near-Roadway Monitored to Modeling Final Comparison Report Findings:

Comment: TRT Members were dismayed to learn that the final product that will be submitted to the I-710 EIR/EIS would be in the form of a PowerPoint.

Response: The full detailed I-710 related reports will not be available until February 2012. The four technical tasks that will be submitted to Caltrans go above and beyond what is already included in the I-710 EIR/EIS.
Ultrafine Particles Near Roadways, Final Report Findings:

Comment: TRT Members asked for more detail on the recommendation for local governments to restrict their transportation fleet.

Response: Regulation could be in two parts: first, local agencies could restrict where and how much "dirty vehicles" can travel. While this is not a current power of local governments, it could be explored for the future. Second, municipalities and other agencies could adopt low emission vehicle standards for their own fleets.
Noise Chapter Preliminary Recommendations:

**Comment:** Use landscape and plant trees as a way to reduce noise.

**Response:** Trees must be dense and clustered together to have a noise dampening effect.

**Clean Rail:** Delete the word "clean" from the phrase and replace it with "state-of-the-art".

**Response:** The recommendation will be reworded accordingly.
Participation Framework

- AQAP Technical Working Groups
- AQAP Roundtables
- I-710 Project Committee
- Environmental Committee
- Transportation Committee
- GCCCOG Board

- HIA: September 26th
- I-710 Related Elements: October 5th
- AQAP Roundtables: September 28th
- I-710 Project Committee: September 14th/15th
- GCCCOG Board: October 5th
• AQAP Project Update
  o I-710 Near-Roadway Modeling Final Report Findings
  o I-710 Ultrafines Final Report Findings
  o I-710 Construction Staging Emissions Presentation and Discussion
  o I-710 HIA Noise Chapter and Status Report Presentation

• Roundtable Discussion
  o I-710 HIA – Noise Chapter

• September 15th Meeting
I-710 HIA Noise Chapter

**Comment:** How much of the I-710 freeway is flanked by soundwalls? Recommend placing a land use layer on the GIS map containing the Caltrans noise level measurements.

**Response:** Metro is funding a study to see what areas are missing soundwalls and the feasibility of building them.

**Comment:** Noise mitigation techniques as a proposed solution (slide 28).

**Response:** Further research is needed.
Comment: Since mitigation measures are based on the numbers collected, we need to be very sure that they are accurate. Recommend additional sampling at sensitive receptor sites; the study should consult a sound engineer to determine how far out to collect data.

Comment: Importance of matching the sensitive receptor sites to the mitigation priorities. Example: Don’t build a sound wall next to an industrial zone! Build it next to a residential area with a neighborhood school.
Near-Roadway Monitored to Modeling Final Comparison Report Findings

**Comment:** Recommend a peer review of the methodology used to predict emissions because the projections will be considered by Caltrans as a basis for policy decision making.

**Response:** Project Team will discuss this recommendation with Caltrans.
Ultrafine Particles Near Roadways:

**Comment:** What is the most effective way to reduce emissions?

**Response:** Diesel particulate traps are the best technology for reducing the emission of ultrafine particles. When used in conjunction with oxidation techniques, they are even more effective.

**Comment:** Does the danger of ultrafines comes from their small size or their chemical composition?

**Response:** High surface area characteristic of ultrafine particles is also a source of toxicity.
Participation Framework

- AQAP Technical Working Groups
  - HIA September 26th
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September 28th

HIA September 26th
Comment: Concerns expressed about fiscal impacts and the medical cost for each premature death.

**Motion Passed Unanimously:** Project Team is to further study the fiscal impacts related to the health outcomes.

**Response:** Mr. Wood indicated that the Project Team would conduct research on the matter and report back at the September meeting.
Thank You

Questions or Comments