Mobility. Environment. Community. Economy. Technology

I-710 Corridor Project EIR/EIS

metro.net

I-710
Corridor Advisory Committee

Air Quality/Health Risk Assessment Update

June 18, 2009

Metro

Caltrans

GATEWAY CITIES

The Port of LONG BEACH

THE PORT OF LOS ANGELES

SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

Overview

1. Purpose of an Air Quality/Health Risk Assessment (AQ/HRA) in the EIR/EIS Process

2. AQ/HRA Protocol Development for the I-710 Project

3. Current Status

Metro

Purpose of the AQ/HRA in the EIR/EIS

- Compare Build Alternatives to existing conditions
- Compare Build Alternatives to the 2035 No Build Alternative (i.e., does the project make air quality better or worse compared to doing nothing at all?)
- Determine whether project is in conformity with the adopted State Implementation Plan for air quality

Metro

AQ/HRA Protocol- Summary of Elements Included

Required Elements per Caltrans SER

- ✓ Carbon Monoxide (CO) quantitative assessment and local “hotspot” dispersion modeling of CO concentrations for conformity analysis
- ✓ PM2.5/PM10 (particulate matter/dust) qualitative assessment for conformity analysis
- ✓ Diesel Exhaust qualitative assessment (identify sensitive receptors)
- ✓ Mobile Source Air Toxics (MSAT) qualitative assessment
- ✓ Construction impacts (identify standard emission/dust control measures)
- ✓ Greenhouse Gases qualitative assessment
- ✓ Construction emissions quantification (total project)

AQ/HRA Protocol- Summary of Elements Included

✓ **Required Elements per Caltrans SER**

Additional Elements Recommended by I-710 Project Team and AQ/HRA Working Group

- ✓ Full dispersion modeling of ambient concentrations of criteria pollutants
- ✓ Full dispersion modeling for estimating concentrations of the six Priority MSATs
- ✓ Full dispersion modeling health risk assessment for the six Priority MSATs
- ✓ Quantification of operational (e.g., on-road mobile source, electric generation) greenhouse gas emissions
- ✓ Qualitative PM mortality impact assessment

AQ/HRA Protocol- Summary of Elements Included

✓ **Required Elements per Caltrans SER**

✓ **Additional Elements Recommended by I-710 Project Team and AQ/HRA Working Group**

Additional Elements Recommended by I-710 Agency Air Technical Group and/or Environmental Subject Work Group

- ✓ **Ultrafine Particulates qualitative assessment**
- ❑ Quantitative assessment of PM2.5 mortality and morbidity monetary benefits/impacts
- ❑ Adopt SCAQMD CEQA significance thresholds
- ❑ Full AQ/HRA modeling for combined operations/construction impacts at interim project phases
- ❑ Specialized “near-source” modeling of PM2.5/PM10
- ❑ Quantitative PM mortality impacts assessment
- ❑ Analysis of “life-cycle” greenhouse gas emissions

AQ/HRA Protocol- Summary of Elements Considered

I-710 EIR/EIS

Typical EIR/EIS

- ✓ **Carbon Monoxide (CO) quantitative assessment and local "hotspot" dispersion modeling of CO concentrations for conformity analysis**
- ✓ **PM2.5/PM10 (particulate matter/dust) qualitative assessment for conformity analysis**
- ✓ **Diesel Exhaust qualitative assessment (identify sensitive receptors)**
- ✓ **Mobile Source Air Toxics (MSAT) qualitative assessment**
- ✓ **Construction impacts (identify standard emission/dust control measures)**
- ✓ **Greenhouse Gases qualitative assessment**
- ✓ **Construction emissions quantification (total project)**

- ✓ **Full dispersion modeling of ambient concentrations of criteria pollutants**
- ✓ **Full dispersion modeling for estimating concentrations of the six Priority MSATs**
- ✓ **Full dispersion modeling health risk assessment for the six Priority MSATs**
- ✓ **Quantification of operational (e.g., on-road mobile source, electric generation) greenhouse gas emissions**
- ✓ **Qualitative PM mortality impact assessment**
- ✓ **Ultrafine Particulates qualitative assessment**

Not Incl.

- ❑ Quantitative assessment of PM2.5 mortality and morbidity monetary benefits/impacts
- ❑ Adopt SCAQMD CEQA significance thresholds
- ❑ Full AQ/HRA modeling for combined operations/construction impacts at interim project phases
- ❑ Specialized "near-source" modeling of PM2.5/PM10
- ❑ Quantitative PM mortality impacts assessment
- ❑ Analysis of "life-cycle" greenhouse gas emissions

AQ/HRA Protocol- Summary of Elements Not Included (and basis for exclusion)

Quantitative assessment of PM2.5 mortality and morbidity monetary benefits/impacts

project-level methodologies and information are not available; lack of regulatory consensus and guidance

Adopt SCAQMD CEQA significance thresholds

Caltrans will review project effects using various thresholds (including SCAQMD's) to determine significance

Full AQ/HRA modeling for combined operations/construction impacts at interim project phases

no funding commitments to date that allow for definition of scopes/timeframes of project construction phases

Specialized "near source" modeling of PM2.5/PM10

lack of regulatory consensus and guidance

PM mortality quantitative assessment

lack of regulatory consensus and guidance for project-level analysis

Analysis of "life-cycle" greenhouse gas emissions

lack of regulatory consensus and guidance; technical and information barriers

Metro

Current Status

- Technical work initiated for elements included in AQ/HRA Protocol
- Further discussions with CAC on elements not included in protocol
- Review preliminary findings with agencies and ESWG in late 2009

Metro