

*Harrisburg Area Transportation Study (HATS) /
Lebanon County Metropolitan Planning Organization (LEBCO MPO)*

Air Quality Conformity Determination

of the

FY 2009 – 2012 Transportation Improvement Program
and
2030 Regional Transportation Plan

for the

Harrisburg-Lebanon-Carlisle 8-hour PM_{2.5} Nonattainment Area

DRAFT

Public Comment Period: May 12th, 2008 – June 10th, 2008

Public Meeting: May 28th, 2008, May 29th, 2008 & June 2nd, 2008,

Adoption: June 27th, 2008

Executive Summary

The Lebanon MPO and the HATS MPO which comprise the Harrisburg-Lebanon-Carlisle, Pennsylvania PM_{2.5} nonattainment area have determined that their respective regional transportation plans (RTP) and transportation improvement plans (TIPs) conform to the requirements of the U.S. Environmental Protection Agency (EPA) regulations regarding regional transportation conformity (40 CFR Parts 51 and 93). This document demonstrates that the nonattainment area meets these requirements by providing the information from each MPO from their respective conformity analyses. Each MPO has conducted the required analysis on relevant portions of its area, and the results are compiled herein.

On July 25, 2007, EPA approved a State Implementation Plan (SIP) revision requesting that the Harrisburg-Lebanon-Carlisle ozone nonattainment area be redesignated as attainment for the 8-hour ozone standard. In conjunction with its redesignation request, the Pennsylvania Department of Environmental Protection (PADEP) submitted a SIP revision consisting of a maintenance plan for the Harrisburg Area that provides for continued attainment of the 8-hour ozone NAAQS for at least 10 years after the redesignation. EPA approved the adequacy determination for motor vehicle emission budgets (MVEBs) that are identified in the Harrisburg Area maintenance plan for purposes of transportation conformity. Separate emission budgets are provided for the Harrisburg Area Transportation Study (HATS) and the Lebanon County MPO (LEBCO) for the 2009 and 2018 analysis years. Since each MPO area has its own ozone emission budgets, the HATS and Lebanon MPOs may conduct ozone conformity determinations independently without coordinated consultation and public comment processes. However, since a PM_{2.5} attainment plan has not yet been approved and PM_{2.5} emission budgets do not exist, both MPOs are still required to conduct PM_{2.5} conformity determinations concurrently and provide their results for the entire nonattainment area.

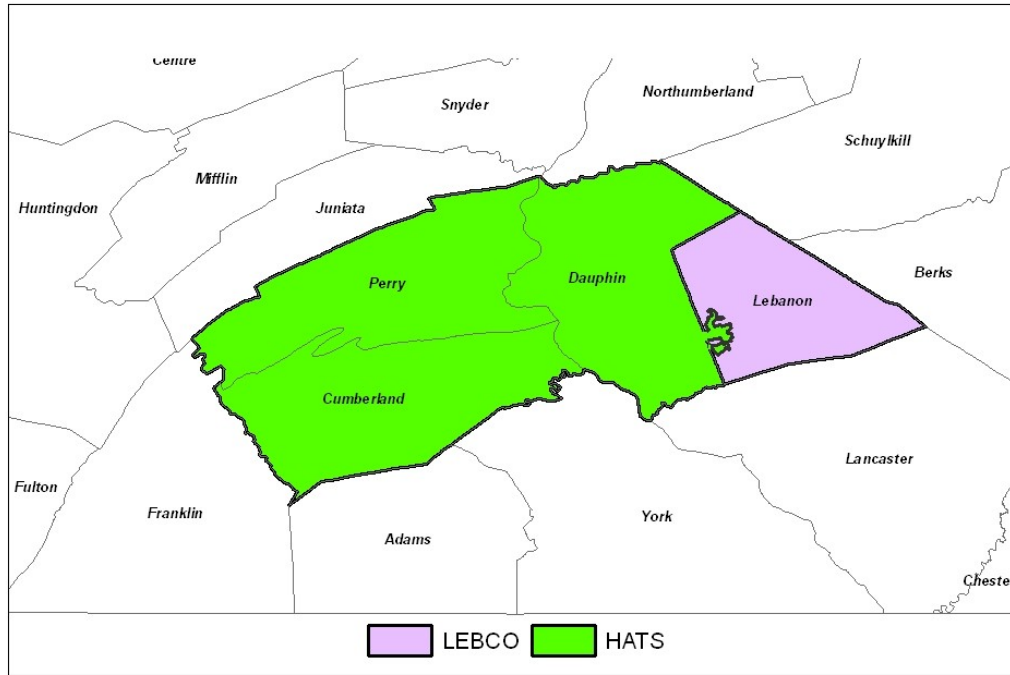
The MPO Ozone Maintenance Area

The Harrisburg-Lebanon-Carlisle ozone maintenance area encompasses the following:

<u>Attainment County</u>	<u>MPO/RPO</u>
Cumberland	HATS MPO
Dauphin	HATS MPO
Perry	HATS MPO
Lebanon	LEBCO MPO

Harrisburg-Lebanon-Carlisle Ozone Maintenance Area

MPOs



The MPO PM_{2.5} Nonattainment Area

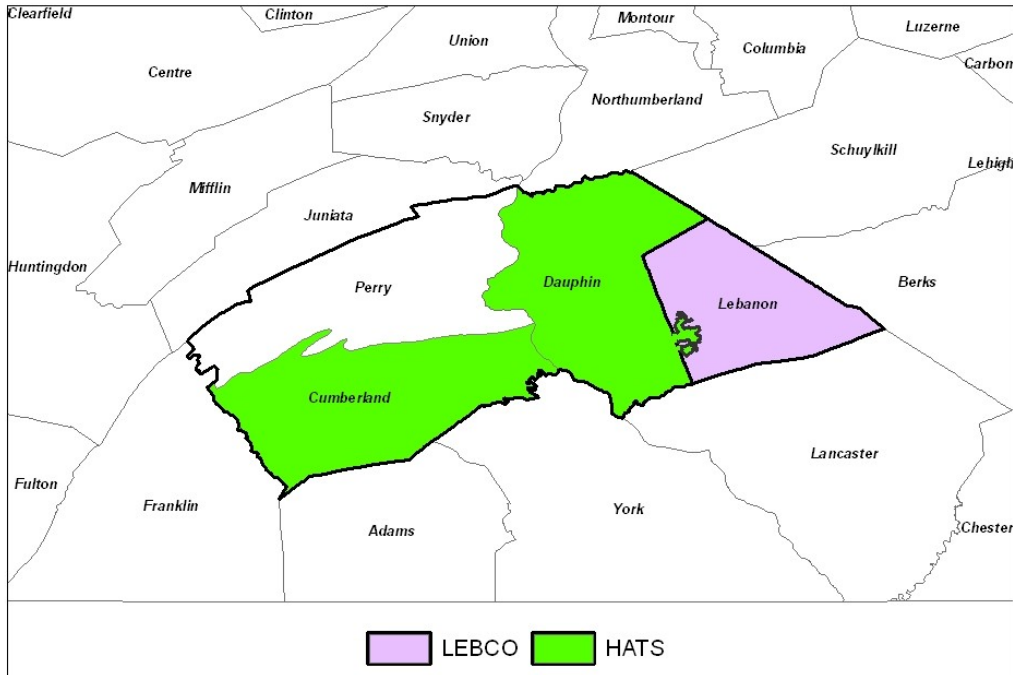
The Harrisburg-Lebanon-Carlisle PM_{2.5} nonattainment area encompasses the following:

<u>Nonattainment County</u>	<u>MPO/RPO</u>
Cumberland	HATS MPO
Dauphin	HATS MPO
Lebanon	LEBCO MPO

* Perry County is excluded from the emission analysis since it is in attainment of the PM_{2.5} standard

Harrisburg-Lebanon-Carlisle PM2.5 Nonattainment Area

MPOs



Interagency Consultation

The conformity process includes significant interaction among the many regional, state and federal agencies involved in transportation and air quality for the nonattainment area. The consultation process includes meetings, conference calls and electronic mail communications. In addition to larger group discussions encompassing broad issues applicable to multiple nonattainment areas, smaller group discussions were held to discuss issues particular to a nonattainment area.

For conformity determinations, this interagency consultation includes:

- HATS MPO
- LEBCO MPO
- Pennsylvania Department of Transportation (Central Office and Districts)
- Pennsylvania Department of Environmental Protection
- U.S. Department of Transportation: Federal Highway Administration ; Federal Transit Administration
- Air quality consultant staff

Meetings/Conference calls/Electronic Communications

- PA Conformity Working Group Meeting, February 7, 2008 at PENNDOT offices in Harrisburg, PA

Decisions made at these meetings included:

- Conformity documentation format
 - STIP schedule
 - Interagency consultation
- Telephone and electronic mails communications among PENNDOT, HATS MPO, LEBCO MPO and consultant staff.

Discussions and decisions included:

- Conformity start date
- Public participation process and dates
- Project identification, description, and data
- Travel modeling issues
- Analysis years
- Latest planning assumptions
- Conformity test(s) to be used
- Future year vehicle assumptions
- Public participation and public comment period dates
- Method of conveying results for entire nonattainment area

Regional Emissions Test(s)

As there are no SIPs or motor vehicle emissions budgets for PM_{2.5} in this nonattainment area, the “interim period” conformity test options are available. Each nonattainment area may select from one of two emissions tests available:

- **Build/No Build Test:** Emissions for each future year under the “build” scenario (implement proposed TIP and RTP) are no greater than emissions under the “no build” scenario (do not implement proposed TIP and RTP).
- **Baseline Test:** Emissions projected for each future analysis year may be no greater than emissions in 2002 (the baseline year).

The selected interim emissions test must be used for the entire PM_{2.5} nonattainment area (unless a MVEB exists). For the PM_{2.5} conformity determination, the “emissions less than baseline” test was selected through the interagency consultation process.

Components of the Regional Emissions Analysis

The PM_{2.5} conformity analysis encompasses the following pollutants, per the inter-agency consultation process required by EPA regulations and the absence of EPA and PaDEP significance determinations:

- Direct emissions (tailpipe, brake/tire wear)
- NO_x precursor emissions

Analysis Results

PM_{2.5}

Tables 1 and 2 present the emissions results for direct PM_{2.5} (exhaust + brake and tire wear) and NO_x, respectively, for each MPO in the nonattainment area. Emissions shown are in tons/year.

Table 1: Direct PM_{2.5} Emissions

	2002 Base	2009	2018	2020	2030
HATS	330.64	209.48	126.79	125.26	134.59
LEBCO	75.35	46.02	25.78	24.85	25.26
Totals	405.99	255.50	152.57	150.11	159.85
Conclusion	----	Pass	Pass	Pass	Pass

Table 2: NO_x Emissions Results

	2002 Base	2009	2018	2020	2030
HATS	22,067.36	12,193.40	4,418.99	3,673.04	2,191.68
LEBCO	4,968.82	2,877.22	1,031.96	849.34	473.44
Totals	27,036.18	15,070.62	5,450.95	4,522.38	2,665.12
Conclusion	-----	Pass	Pass	Pass	Pass

Conclusions

The region is working toward steadily improving air quality and attaining the NAAQS. The below findings carry forward the vision of the partners in the nonattainment area and their goals for improved natural and built environments, a growing economy, and an effective, interconnected, multi-modal, safe and reliable transportation system.

The emissions of direct PM_{2.5} and NO_x in each future year are not greater than emissions in the 2002 baseline year. The analysis shows that the nonattainment area has demonstrated conformity with PM_{2.5} transportation conformity rules, using the baseline 2002 conformity test during the interim period.