

**Durham-Chapel Hill-Carrboro Metropolitan Planning Organization**  
**Air Quality Conformity Analysis Report**

**Executive Summary**

The purpose of this report is to comply with the provisions of the Clean Air Act Amendments of 1990 and the Transportation Equity Act for the 21<sup>st</sup> Century of 1998. It demonstrates that the fiscally constrained long-range transportation plan of the Durham-Chapel Hill-Carrboro (DCHC) Metropolitan Planning Organization eliminates or reduces violations of the national ambient air quality standards (NAAQS) in Durham County. The plan accomplishes the intent of the North Carolina State Implementation Plan (SIP). This conformity determination is based on a regional emissions analysis that uses the transportation network approved by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization for the 2025 Transportation Plan and the emissions factors developed by the North Carolina Department of Environment and Natural Resources (NCDENR). Based on this analysis, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization Transportation plan conforms to the purpose of the North Carolina SIP.

USEPA originally declared Durham County non-attainment for ozone (O<sub>3</sub>) and Carbon Monoxide (CO) on November 15, 1990. Durham County was redesignated by USEPA to maintenance for ozone on June 17, 1994 and for CO on September 18, 1995. The air quality determination in this report is for Durham County and a small portion of Granville County. Orange County is not in the analysis because it is not a maintenance area.

The conformity determination is based on the DCHC Metropolitan Planning Organization long-range transportation plan. The transportation plan is analyzed for 2005, 2015, and 2025. Each analysis year includes expected population and employment data and roadway and transit projects that should be open. The plan is fiscally constrained, identifying Federal/state, local, and private funding sources to the extent possible. Table 1 summarizes the conformity requirements of 40 CFR Part 51 and 93 and gives the status of the DCHC Metropolitan Planning Organization long-range transportation plan in relation to each of these requirements.

**Table 1: Summary of Status of Conformity Requirements**

Criteria	Plan Status
Consistent with Emissions Budget(s)	YES
TCM Implementation <sup>2</sup>	Not Applicable
Interagency Consultation	YES

<sup>2</sup> The NC SIP includes no TCMs related to this MPO.

(A)

Latest Emissions Model	YES
Latest Planning Assumptions	YES
Fiscal Constraint	YES

NCDENR prepared base and future emission rates for the vehicle fleet using MOBILE 5A. These rates were applied to normalized VMT from the Triangle Regional travel demand model. VMT normalization was necessary to match 1995 DCHC Metropolitan Planning Organization VMT with 1995 VMT estimates used for SIP preparation.

Table 2 in this section is a summary of the emissions budget comparison. The conversion factor from tons/day to kg/day is 907.2.

**Table 2: Emissions Comparison Summary**

Year	SIP Emissions (KG/Day)	Long Range Plan Emissions (KG/Day)	SIP Emissions (KG/Day)	Long Range Plan Emissions (KG/Day)	SIP Emissions (KG/Day)	Long Range Plan Emissions (KG/Day)
1995		15,263		7,332		87,650
2004	18,162	12,956	13,372	6,402	141,285	80,440
2005	18,162	12,700	13,372	6,299	145,794	79,638
2015	18,162	7,024	13,372	5,687	145,794	72,626
2025	18,162	6,025	13,372	5,841	145,794	75,583