

SIP Document:

1.6.2.11 Transportation Control Measures (TCM)

TCMs are transportation projects and related activities that are designed to achieve on-road mobile source emissions reductions and are included as control measures in the SIP. Allowable types of TCMs are listed in §7408 (Air Quality Criteria and Control Techniques) of the FCAA, 42 United States Code, 1970, as amended (FCAA), and defined in the federal transportation conformity rule found in Title 40 CFR (40 CFR), Part 93 (Determining Conformity of Federal Actions to State or Federal Implementation Plans). In general, a TCM is a transportation related project that attempts to reduce vehicle use, change traffic flow, or reduce congestion conditions. A project that adds single-occupancy-vehicle roadway capacity or is based on improvements in vehicle technology or fuels is not eligible as a TCM.

The North Central Texas Council of Governments (NCTCOG) has identified numerous TCMs that have been, or will be, implemented in the 9 county nonattainment area. By July 2009, these TCMs will reduce Nitrogen Oxide (NOx) emissions in the nonattainment area by 1.53 tons per day (tpd) and Volatile Organic Compound (VOC) emissions by 1.61 tpd. The table below summarizes total 2009 emissions reductions by type of TCM.

As decided by the Technical Work Group (TWG) TCM Subcommittee, through interagency consultation, a group of appendices documenting projects, following the TCM narratives, is included. Table 1 includes projects that have been implemented but the associated emission benefits are not applicable in this SIP Revision. Table 2 includes projects that have been implemented with applicable emission benefits. Table 3 is a summary table including the original number of commitments, completed commitments, and remaining commitments for each program area with associated NOx and VOC emission benefits.

Total 2009 Estimated Emission Reductions by TCM Program

TCM Program	Commitments (Jan 2000 – July 2009)		July 2009 NOx Benefits (lbs/day)		July 2009 VOC Benefits (lbs/day)	
	Modeled	Post- Processed	Modeled	Post- Processed	Modeled	Post- Processed
Bicycle/Pedestrian Projects	0.0 Miles	15.4 Miles	0.00	14.98	0.00	9.51
Grade Separation Projects	82 Locations	2 Locations	350.35	4.26	898.44	51.40
HOV/Managed Lane Projects	70.0 Miles	0.0 Miles	1,584.92	0.00	881.50	0.00
Intersection Improvement Projects	0 Locations	655 Locations	0.00	293.76	0.00	786.87
Park and Ride Projects	1,465 Spaces	820 Spaces	55.30	30.95	35.11	19.65
Rail Transit Projects	70.2 Miles	0.0 Miles	568.55	0.00	419.17	0.00
Vanpool Projects	0 Vanpools	216 Vanpools	0.00	168.99	0.00	113.11
Total Pounds/Day			2,559.12	512.94	2,234.22	980.54
Total Tons/Day			1.27	0.26	1.12	0.49

**All of the listed projects are commitments, have been approved by the transportation policy body (Regional Transportation Council), and are funded.*

***Please note that the project listing for each program area; with associated emission reductions and methodology will be accounted for in the subsequent Transportation Conformity Document(s).*

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Program Narratives: This section describes each program area by describing the methods of how the TCM category improves air quality.

Bicycle/Pedestrian Projects

Projects that create and/or enhance bicycle/pedestrian pathways throughout the region serve to link individuals to alternative methods of transportation, other than driving a single occupancy vehicle. By doing so, the automobile emissions that would otherwise be released from the automobile are removed completely. In the North Central Texas region, a veloweb has been designed for use primarily by fast-moving bicyclists. The veloweb is also designed to encourage concurrent pedestrian transportation use. NCTCOG has identified 15.4 miles of veloweb projects that will be implemented in the 9-county nonattainment area by July 2009.

Grade Separation Projects

By separating a road or railroad track from a crossroad, idling time that would otherwise be created by intersection blockage is eliminated. With this elimination of idling, grade separations increase the efficiency of traffic flow thereby improving travel time and minimizing delay. Thus, vehicle emissions and fuel consumption are reduced. NCTCOG has identified 84 locations that will be implemented in the 9-county nonattainment area by July 2009.

High Occupancy Vehicle (HOV) Projects

High occupancy vehicle projects promote carpooling thereby removing single occupancy vehicles and the associated vehicle emissions released from the roadway. The increase in flow of HOV lanes offers incentive for drivers to carpool. NCTCOG has identified 70.0 lane miles of HOV projects that will be implemented in the 9-county nonattainment area by July 2009.

Intersection Improvement Projects

Improvements to intersections including left and/or right hand turn lanes decrease the amount of time automobiles are left idling at intersections. This decrease in idling reduces fuel consumption and vehicle emissions. NCTCOG has identified 655 intersection improvement locations that will be implemented in the 9-county nonattainment area by July 2009.

Park and Ride Projects

Park and ride facilities promote carpooling and vanpooling. With each occupied parking space at these locations, it can be assumed that the emissions from the vehicle parked are eliminated. Park and ride lots that also serve as transit stations are not accounted for in the analysis as it is assumed the majority of these park and ride lots contain transit riders, which are then captured in Rail Transit Projects. NCTCOG has identified 2,285 parking spaces contained in Park and Ride projects that will be implemented in the 9-county nonattainment area by July 2009.

Rail Transit Projects

Rail projects involve implementation of new or expanded transit services or facilities. The improvements may be accomplished for all transit modes such as buses, rail, and paratransit. The three main components of improved transit are: system/service expansion projects, system/service operational improvements, and inducements. By improving regional transit systems, an increase in opportunity is created for new passengers as well as an increase in air quality benefits. NCTCOG has identified 70.2 miles of rail projects that will be implemented in the 9-county nonattainment area by July 2009.

Vanpool Projects

Vanpool projects include a group of six to fifteen commuters who travel to and from the same area, have similar work hours, share the costs of operating the van, and usually meet at a Park and Ride lot at a centralized location. These projects remove the extra vehicles that would otherwise be commuting by consolidating travelers into one automobile. These projects reduce air pollution, reduce traffic

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congestion, and help conserve fuel. NCTCOG has identified 216 vanpools that will be implemented in the 9-county nonattainment area by July 2009.