DOVER/KENT COUNTY
METROPOLITAN PLANNING ORGANIZATION

TRANSPORTATION IMPROVEMENT PROGRAM
FISCAL YEARS 2011-2014

DRAFT **March 2010**

Prepared at the Direction of the
Dover/Kent County Metropolitan Planning Organization Council

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Background

The Dover/Kent County Metropolitan Planning Organization (Dover/Kent County MPO) is the transportation planning organization for Kent County, Delaware and its municipalities. The Dover/Kent County MPO was established in 1992 under the mandates of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, which requires that a metropolitan planning process be established in urbanized areas with a population greater than 50,000. The Dover urbanized area exceeded that threshold by the 1990 U.S. Census of Population, with a figure of 50,757. In 2000, the urbanized area population was determined to be 65,044. The Census Bureau has not produced a recent estimate of the Dover urbanized area, but the population of Kent County grew from 126,697 in 2000 to 155,415 in 2008. The MPO anticipates the 2010 census will reveal a population and geography growth that will bring the urbanized area population close to 100,000 persons.

The Transportation Improvement Program (TIP) is one of the products that the federal legislation requires a metropolitan planning organization to prepare at least every four years. The purpose of the TIP is to list transportation projects for which federal funding will be sought over a four year period. The TIP should reflect the region's priorities, represent a consensus among state and regional officials, show a direct relationship to the regional transportation plan, be financially constrained, and conform with federal air quality regulations as they relate to transportation. Finally, the TIP must be subjected to thorough public review during development and prior to adoption.

The Dover/Kent County MPO TIP was prepared in coordination with Delaware's Capital Transportation Program (CTP) and the MPO's 2008-2030 Regional Transportation Plan. Members of the MPO Council, Technical Advisory (TAC), and Public Advisory Committees (PAC) were invited to submit projects for inclusion in the Plan and TIP. The projects were ranked using a process developed by the MPO committees and Council. Public input was solicited at PAC meetings held throughout Kent County, and during a free bus tour of TIP project sites. The Delaware Department of Transportation (DelDOT) analyzed financial and air quality requirements for the MPO.

The cost of the projects comprising the 2011-2014 TIP is $97,150,600. The funds anticipated too used for the projects in the TIP during FY 2011, FY 2012, FY 2013 and FY 2014 are $ 42,432,100, $22,227,200, $13,040,100, and $19,451,200 respectively. The Federal amount spent on these for the four years is $31,147,000, $13,454,100, $7,615,600, and $ 15,183,300 respectively. In addition to these projects, DelDOT maintains and operates the transportation system under statewide categories such as bridge inspection, pavement rehabilitation, roadway signage, intersection improvements and statewide transit services and equipment. The actual amount of funds to be spent from these statewide categories in the MPO's region cannot always be determined since projects are selected based on statewide needs. A small percentage of costs for statewide projects within the MPO's region is federally funded. The MPO TIP will be submitted to DelDOT as the region's input for the Statewide Transportation Improvement Program (STIP).

Regional Goals

Kent County has a diverse economy and population. The City of Dover is a strong metropolitan hub situated in the center of the county in a growth corridor that extends from Smyrna to the north and Milford to the south. Inside the functional growth corridor and actual Kent County Growth Zone are the largest employers, include Dover Air Force Base, the State of Delaware, Kraft General Foods USA, the Eagle Group, General Metalcraft Inc., Proctor and Gamble, and ILC Dover, Inc. The regional warehouse of Wal-Mart recently built in Smyrna has also been playing a greater role in the economic development of the area. Outside of the growth corridor, the county's economy is predominantly agricultural, including a well-established Amish community. The presence of three four-year colleges and one two-year college enhances the region's ability to attract and maintain a diverse community.

On January 28, 2009, the MPO adopted its Regional Transportation Plan (RTP). The Plan, which has a 20-year planning horizon, assesses the region's short-term improvement needs, projects future needs, projects the funds available to meet the needs, and identifies goals and objectives to meet those needs. The RTP is to be financially reasonable and result in a positive impact on the region's air quality. The planning process was coordinated with DelDOT's statewide planning process, the Office of State Planning Coordination's Livable Delaware Initiative, Kent County's Comprehensive Plan Update, and Dover's Comprehensive Plan Update.

The RTP provides a framework to guide future transportation planning, programming activities, and policy alternatives. The following goals are identified for Kent County:

- Strengthen the local economy to keep it diverse and relatively stable;
- Maintain the current quality of life, including the agricultural economy, the abundant natural resources and open space, and the accessibility of political leaders;
- Manage growth effectivelyto ensure adequate infrastructure is available to support desired growth patterns;
- Improve access and mobility while ensuring the safety and security of all citizens; and
- Preserve and expand transportation infrastructure to safely and efficiently transport people and goods.

A hierarchy of fundamental strategies will be developed to support these goals and further guide transportation planning and programming decisions to focus transportation investments.

- Preserve and maintain the existing transportation system;

- Improve management of the existing transportation system;
- Develop and expand multiple transportation modes; and
- Provide additional roadway system capacity.

Projects in the FY2011 TIP were drawn from the recently adopted 2030 RTP.

The Prioritization Process

Projects being considered for inclusion in the TIP were prioritized using a numerical scoring system to reflect qualitative ratings based on transportation system data. This process was developed by members of the PAC and TAC and adopted by the MPO Council in 2003.

The process consists of a 10-factor matrix that covers the seven factors from TEA-21 that the MPO must consider. A score is assigned to each factor for each project based on information about the project supplied on the project submittal form. The criteria for assigning the ratings and the scales used (high, medium, low, not applicable, or negative) are identical for all project types. Actual ratings are made based on judgments of how well the objective data meets the rating criteria. Once a rating is established for each criterion, it is converted to a numerical score: high = 3, medium = 2, low = 1, not applicable = 0, and negative impact = -1. The numerical scores are multiplied by the weights shown in Table 1, then aggregated for a total score for each project.

Table 1. Factors, Definitions and Weights for TIP Project Scoring

Factor	Description	Weight
Safety	Extent to which project location represents a safety hazard/solution for motorists, pedestrians, bicyclists and/or transit users.	0.20
Support for Comprehensive/ Community Plans	Extent to which the project supports policies or is derived from an approved County or Municipal Comprehensive Plan or a special transportation study, such as corridor study or bike plan.	0.20
Environmental Justice	Extent to which project has disproportionately high and adverse effects on minority and low-income populations or disproportionately benefits populations not protected under Title VI of the Civil Rights Act of 1964.	0.10
Transit	Support shifting people/goods to rail or bus; or support more efficient operation of rail or bus.	0.05

Factor	Description	Weight
Pedestrian/Bicycle Travel	Extent to which project incorporates/supports/enhances bicycle/pedestrian access or use.	0.05
Total		**1.00**

To implement the priority process, each MPO member was given the opportunity to submit projects for inclusion in the TIP throughout the year. The submitted project descriptions were distributed to all members along with a list of projects included in DelDOT's draft FY 2010 CTP. The TAC and PAC conducted the prioritization process before making a recommendation to the MPO Council. Once a rating was adopted for each project, a letter was sent to the Secretary of Transportation requesting that the project(s) be funded in the CTP and TIP. The projects submitted for funding to the FY 2010-2013 TIP are shown in Table 2 below

Table 2 Ratings for Projects Submitted to the 2010-2013 TIP

Project Description	*(TIP FY) YEAR SUBMITTED*	*RATING*
Adopted Priorities		
SR 1/NE Front St. Grade Separated Intersection - Construct a grade separated intersection at SR 1 and NE Front St. in Milford	2010	
DE 8 Concept Plan and Operations Study Recommendations	2010	
North Dover Study Recommendations	2010	

Public Participation

Public review was an integral aspect of the Plan and TIP process. Public participation was solicited through PAC, TAC and Council meetings and a free bus tour of proposed project sites.

The bus tour was held March 27, 2010, and visited proposed TIP project locations throughout Kent County. The MPO staff, assisted by a member of the Kent County Planning staff, guided the tour and provided information about the proposed project locations being visited and

conditions in the county that impact transportation policy. During the tour, the public and media had the opportunity to ask questions and interact with the PAC and staff.

The MPO will provid opportunity for comment specifically on the TIP at the April 14, 2010 TAC meeting, the April 27, 2010 PAC, and the May 5, 2010 Council meeting before the Council will vote on the document.

News releases and advisories publicizing all of the meetings and the bus tour will be posted on the MPO's website and sent to members of each MPO committee, print and electronic media outlets, each of the libraries in Kent County, state legislators representing areas including Kent County and contiguous areas, Kent County Levy Court, mayors of Kent County municipalities, and Dover City Council. Copies of the draft TIP will be made available to anyone who asked. Copies of the draft document will be posted on the website, as well. Table 3, below, will contain a summary of comments and responses regarding the Amended FY 2011-2014 TIP when finalized.

Table 3 Summary of Public Comments and Responses – Proposed March, 2010 TIP	
Comment	**Response**

To comply with the requirements of Title VI, with reference to the FY 2011-2014 TIP, the MPO will make efforts to include minorities and low-income populations in the decision-making process of submitted projects through the implementation of its public participation policy and representation on the MPO's PAC. When a proposed project is located in an Environmental Justice (EJ) neighborhood, special measures are taken to reach out to those who would be affected and the free bus tour gave all members of the community an opportunity to be part of transportation programming in the MPO area.

Air Quality Conformity

Overview

The Dover/Kent County MPO is a federally-designated Metropolitan Planning Organization. As such, the organization is required through federal regulations to show that the Regional Transportation Plan conforms to the requirements of the 1990 Clean Air Act Amendments (CAAA). These air quality standards, called emissions budgets, set standards that the MPO must abide by for specific milestone years. Emissions contribute to air pollution. If the emissions generated from the projects in the transportation plan are equal to or less than these emissions budgets, then the transportation plan conforms to the State Implementation Plan (SIP).

In an attempt to reduce emissions nationwide, the CAAA developed a rating system for metropolitan area non-compliance with federal air quality standards, with levels of non-compliance ranging from "marginal" to "extreme." The Dover/Kent County MPO region, as part of the Philadelphia-Wilmington-Trenton non-attainment area, was classified as severe. The CAAA of 1990 required severe non-attainment areas, or areas that did not meet national air quality standards, to develop a plan to show how they would achieve the National Ambient Air Quality Standard (NAAQS) for ozone by 2005. A rate-of-progress plan showing emission reductions of 3 percent per year between 1996 and 2005 was required to ensure that proper strategies were being employed to decrease emissions.

Effective June 15, 2004, the United States Environmental Protection Agency (EPA) finalized ground-level ozone designations under the new eight-hour ozone NAAQS. These standards replaced the one-hour ozone NAAQS.

Kent County, part of the Philadelphia-Wilmington-Trenton non-attainment area, is classified as moderate under the eight-hour standard. For Kent County, the eight-hour ozone non-attainment area boundary is the same as the one-hour non-attainment area boundary. Based on this designation, transportation conformity must be based on the existing one-hour attainment budget for all applicable analysis years until the new eight-hour ozone SIPs are implemented. Attainment of the new federal zone standards is required by the year 2010, which becomes a new milestone year for the conformity analysis.

The emissions targeted for the Dover/Kent County MPO region are the two major ozone contributors, volatile organic compounds (VOCs) and nitrogen oxide (NOx). While naturally-produced ozone in the upper atmosphere protects life on earth by filtering out radiation from the sun, ozone at the ground level is a noxious pollutant. Ground-level ozone is the major component of smog and can damage lung tissue, worsen respiratory diseases, increase chances of pulmonary diseases, and make people more susceptible to respiratory infections. Automobile emissions are one of the major contributors to ozone formation. Both VOCs and NOx are the result of combustion within a vehicle engine. VOCs and NOx at the ground level form ozone in the presence of sunlight.

This chapter demonstrates the transportation conformity of the 2030 Regional Transportation Plan to the eight-hour NAAQS.

Methodology

The air quality analysis conducted for the 2030 RTP uses a series of computer-based modeling techniques which are described below. These methodologies are consistent with techniques that the Dover/Kent County MPO and DelDOT have used to conduct previously required air quality analyses and to assist DNREC with various SIP documents. They are similar to methods other state and regional agencies use to prepare air quality analysis.

Travel Demand Modeling

A travel demand model for Kent County is maintained by DelDOT. The model uses a variety of data about the roadway network, travel patterns, and automobile ownership, as well as demographic information such as population and employment sites. The model follows the traditional four-step modeling approach that includes trip generation, trip distribution, mode split, and assignment. The model is run in the QUBE software package.

The modeling process developed for the Regional Transportation Plan uses a 2008 base year network validated against DelDOT traffic counts. Model networks were developed for 10-year intervals, 2010, 2020, and 2030 for Kent County. The types of projects tested were corridor improvements, highway widening, and new roadway construction. Each project was added to the network in the year when the improvement was completed. Socioeconomic projects such as population, employment, and household size were developed for the same 10-year intervals.

The 2011-2014 TIP

This TIP includes the projects that were represented in the Regional Transportation Plan. There have been no significant changes in the scope of the projects and no regionally significant projects have been added. The modeling process completed for the Regional Transportation Plan remains an accurate analysis of air quality impacts.

Table 4: Dover-Kent County MPO Projects included in Air Quality Conformity Analysis for the 2009 Update of the 2030 Retional Transportaiton Plan

		Score	Spending	Year Completed By	Road Classification	Conformity Status	Regionally Significant?	Rationale
Capital Projects - Highways	Committed Projects		South Governors Ave Reconstruction Webbs Lane to Water Street	**2011**				
		27.1	Complete the SR 1 Little Heaven Grade Separated Intersection	**2015**	Arterials	Exempt		Intersection Improvements
		26.4	Complete the SR 1 and SR 9 Grade Separated Intersection at DAFB	**2010**	Arterials	Exempt		
		23.2	Complete the SR 1 / Thompsonville Road Grade Separated Intersection (K 19)	**2014**	Arterials	Exempt		
		23.2	Complete the SR 1 South Frederica Grade Separated Intersection (Cedar Neck Road K 120)	**2015**	Arterials	Exempt		
		23.2	Complete the SR 1, North Frederica Grade Separated Intersection	**2012**	Arterials	Exempt		
		29.0	Upgrade Barratts Chapel Road from SR 1 to Kersey Rd to include adequately wide travel lanes and shoulders and include bicycle, pedestrian and transit facilities as appropriate	**2020**	Major Collector	Exempt		Shoulders, Bike/Ped
		29.0	Improve Carter Road from Sunnyside Road to	**2020**	Major	Exempt		Shoulders,

				Year Completed By	Road Classification	Conformity Status	Regionally Significant?	Rationale
			Wheatley's Pond Road (DE 300) to include adequately wide travel lanes and shoulders and pedestrian and bicycle facilities		Collector			Bike/Ped
		28.3	Upgrade Duck Creek Parkway from Bassett Street to Main Street in north Smyrna to include adequate travel lanes, shoulders, curbs, drainage, and bicycle and pedestrian improvements	**2020**	Major Collector	Exempt		Shoulders, Bike/Ped
		28.3	Construct the West Dover Connector	**2020**	Minor Arterial	Non-exempt		Regionally Significant
		25.1	Realign Wyoming Mill Road with the Village of Westover entrance and signalize	**2012**	Major Collector	Exempt		Realignment
		28.3	Construct the Clarence Street Extension	**2020**	Local	Non-exempt		Not Regionally Significant
		29.0	Complete gateway improvements on Forest St, including a roundabout at the intersection of Loockerman Street and Forest Street	**2016**	Minor Arterial	Exempt		Intersection Improvements
	New Projects	37.0	**DE 8: Construct recommendations from the DE 8 Concept and Operations Study**	**2030**	Minor Arterial			
		37.0	- D8: Intersection Improvements: Left turn phasing at 4 intersections	**2030**	Minor Arterial	Exempt		Intersection Improvements
		37.0	- D8 : Intersection Improvements: Access to the new High School site (Carey Farm), Calvary Church site	**2030**	Minor Arterial	Exempt		Intersection Improvements

			Year Completed By	Road Classification	Conformity Status	Regionally Significant?	Rationale
	37.0	- D8 : Intersection Improvements: Mifflin Road right turn and realignment of Brandywine Apts entrance	**2030**	Minor Arterial	Exempt		Intersection Improvements
	37.0	- D8: N/S Connector Road: Chestnut Hill Road to Rt 8	**2030**	Major Collector	Non-exempt		Not Regionally Significant
	37.0	- D8: N/S Connector Road: Rt 8 to Hazletville Rd	**2030**	Major Collector	Non-exempt		Not Regionally Significant
	37.0	- D8 : N/S Connector Road: Connection above Road to Artis Drive	**2030**	Major Collector	Non-exempt		Not Regionally Significant
	37.0	- D8 : Install Bicycle and pedestrian Improvements including bike lanes, designated, controlled crossings with ped signals and an alternative shared use path	**2030**	Minor Arterial	Exempt		Shoulders, Bike/Ped
	37.0	- D8 : Connector Road behind Greentree Shopping Center between Independence Blvd and Kenton Road	**2030**	Local	Non-exempt		Not Regionally Significant
	37.0	- D8: Realign intersection of Artis Drive with DE 8	**2030**	Local	Exempt		Intersection Improvements
	37.0	- D8: Interconnections to enhance Rt 8 Corridor Capacity Independence south of Rt 8 to Mifflin Road, Dove View to Modern Maturity, Heatherfields/Fox Hall West & Cranberry Run,	**2030**	Exempt	Exempt		Intersection Improvements
	37.0	- D8 : Connector Road south of Gateway West to	**2030**	Local			Below

			Year Completed By	Road Classification	Conformity Status	Regionally Significant?	Rationale
		Commerce Way					Arterial
	37.0	**NDS: Implement the recommendations of the Concept Plan for US 13 and 113 in Dover**	**2030**	Minor Arterial			
	37.0	- NDS: Construct a collector road between the Scarborogh Rd. and US 13 to the East of Dover Mall and Dover Downs, to Leipsic Road (NDS is North Dover Study)	**2030**	Major Collector	Non-exempt		Not Regionally Significant
	37.0	- NDS: Construct a collector between above and US 13 adjacent to Best Buy	**2030**	Major Collector	Non-exempt		Not Regionally Significant
	37.0	- NDS: Realign Exit 104 toll plaza and access roads to accommodate above	**2030**	Other Freeway	Exempt		Intersection Improvements
	37.0	- NDS: Realign Leipsic Road and connect to US 13 at Jefferic Blvd. and to the Barry Van Lines site	**2030**	Major Collector	Exempt		Roadway Redesign
	37.0	- NDS: Construct Crawford Carroll Rd extension from behind Lowes to College Rd east of DSU	**2030**	Major Collector	Non-exempt		Not Regionally Significant
	37.0	- NDS: Construct a local road between above and US 13 across from a realigned Dover Mall North entrance	**2030**	Major Collector	Exempt		Below Arterial
	34.7	Upgrade Kenton Road from DE 8 to Chestnut Grove Road in Dover with shoulders, sidewalks, bike and transit facilities and closed drainage	**2030**	Minor Arterial	Exempt		Shoulders, Bike/Ped
	33.2	Intersection Improvements to South State Street at SR 10 (Lebanon Road)	**2020**	Minor Arterial	Exempt		Intersection Improvements

			Year Completed By	Road Classification	Conformity Status	Regionally Significant?	Rationale
	33.2	Intersection Improvements to South State Street: Sorghum Mill Rd. to SR 10 (Lebanon Road)	**2020**	Minor Arterial	Exempt		Intersection Improvements
	33.2	South State St. Intersection Improvements various intersections (8 total) between US 13 and SR 1	**2020**	Minor Arterial	Exempt		Intersection Improvements
	32.4	Upgrade West Street from New Burton Road (Queen Street) to North Street in Dover to include adequate travel lanes, shoulders, curbs, drainage, and bicycle and pedestrian improvements	**2020**	Major Collector	Exempt		Shoulders, Bike/Ped
	32.4	Construct pedestrian improvements on US 13 from Duck Creek to the north Smyrna SR 1 interchange	**2030**	Major Collector	Exempt		Shoulders, Bike/Ped
	30.8	Upgrade Front Street corridor from Rehoboth Blvd to SR 1, Milford to include adequate travel lanes, shoulders, curbs, drainage, bicycle and pedestrian improvements and intersection improvements	**2030**	Major Collector	Exempt		Shoulders, Bike/Ped
	30.8	Construct /fill gaps in pedestrian improvements on US 13 in Smyrna	**2030**	Minor Arterial	Exempt		Shoulders, Bike/Ped
	30.7	Upgrade corridor of DE 14 from DE 15 to Church Street and from Washington Street to SR 1 with adequate lane width, shoulders, sidewalks and transit facilities	**2030**	Minor Arterial	Exempt		Shoulders, Bike/Ped
	30.7	Complete upgrade of DE 300 from railroad tracks to US 13 to include sidewalks, bicycle and transit facilities and intersection improvements at Carter Rd/DE 6 area	**2030**	Major Collector	Exempt		Shoulders, Bike/Ped

			Year Completed By	Road Classification	Conformity Status	Regionally Significant?	Rationale
	30.7	Upgrade Irish Hill Road from SR 1 to US 13 to include adequate travel lanes, shoulders, and bicycle and pedestrian improvements	**2030**	Major Collector	Exempt		Shoulders, Bike/Ped
	30.7	Upgrade College Road from Salisbury to Kenton Road to include turn lanes where needed, shoulders, sidewalks or multi-use path, curbing and closed drainage	**2030**	Minor Arterial	Exempt		Shoulders, Bike/Ped
	29.1	Construct a connector road from White Oak Road to DE 8	**2015**	Major Collector	Non-exempt		Not Regionally Significant
	29.1	Upgrade Sunnyside Road from DE 300 to US 13 in Smyrna to include adequate travel lanes, shoulders, curbs, drainage, and bicycle and pedestrian improvements	**>2030**	Major Collector	Exempt		Shoulders, Bike/Ped
	29.1	Construct/fill gaps in pedestrian facilities on US 113 between Court Street and Lafferty Lane	**>2030**	Minor Arterial	Exempt		Shoulders, Bike/Ped
	28.5	Upgrade N. Main Street in Smyrna to include adequate travel lanes, shoulders, curbs, drainage, and bicycle and pedestrian improvements	**>2030**	Major Collector	Exempt		Shoulders, Bike/Ped
	28.5	Upgrade Joe Goldsborough Road from Duck Creek Road to US 13 to include adequate travel lanes, shoulders and bicycle and pedestrian facilities	**>2030**	Major Collector	Exempt		Shoulders, Bike/Ped
	28.5	Upgrade Paddock Road from US 13 to SR 1 to include adequate travel lanes, shoulders and bicycle and pedestrian facilities	**>2030**	Major Collector	Exempt		Shoulders, Bike/Ped

			Year Completed By	Road Classification	Conformity Status	Regionally Significant?	Rationale
		27.3 Upgrade Messina Hill Road to improve safety and include adequate travel lanes, shoulders and bicycle and pedestrian facilities	**>2030**	Major Collector	Exempt		Shoulders, Bike/Ped
		Spending					
Capital Projects - Transit	**New Projects**	Expand fixed-route bus service	**2010**	|	Non-exempt		Regionally Significant
		Expand paratransit service	**2020**	|	Non-exempt		Not Regionally Significant
		Create/operate the Smyrna Shuttle	**2020**	|	Non-exempt		Not Regionally Significant
		Delaware Air Park - DRBA - Runway Extension	**2020**	|	Exempt		No New Emissions
		Implement recommendations of Civil Air Terminals Studies	**2020**	|	Exempt		Categoricall y
		Construct the Dover Transit Center at Water and West Streets	**2020**	|	Exempt		No New Emissions

The network horizon years used in the model were selected in accordance with EPA regulations.

Emissions Factor Model

The second major software used in this air quality analysis was MOBILE6.2, a program developed by the EPA to calculate mobile source emission rates for each one-mile-per-hour increment up to 65 miles per hour. The factors determined the emission rates for various vehicle classifications at different speeds. Factors were needed for each of these increments because speed is a critical element in determining the total amount of emissions.

The overall structure of the MOBILE6.2 program is defined by the EPA. DNREC uses this model to predict the level of emissions. The input file for the modeling process reflects air quality strategies anticipated according to the SIP and its amendments.

Mobile Source Emissions

The estimates of emissions for Kent County are generated jointly by DelDOT and DNREC. The post-processor takes data produced by the QUBE model output and adjusts it for input into the mobile emissions model. This process links the speeds and volumes generated by the travel demand model with emission factors from MOBILE6.2. Once emissions for each segment are calculated, they are summed to identify the countywide totals presented below.

The vehicle miles traveled and emissions data for Kent County were adjusted to be compatible with data contained in the SIP. The adjustments represent factors to account for seasonal traffic variations and to align the travel demand estimates with DelDOT's HPMS traffic level reporting system.

Mobile Source Emissions Data

Both NOx and VOC emissions were tested in Kent County for 2010, 2020, and 2030 against the MOBILE6.2 eight-hour ozone standard attainment plan budgets. These amounts mirror the budgets set in the latest revision to the Kent County rate of progress plan which the EPA approved on November 20, 2008. Table 5 summarizes this information.

Table 5: Emissions Data

Year	VMT	VOC	Budget	Nox	Budget
2008			4.14		9.68
2010	5375696	3.81		7.89	
2020	6487825	3.17		2.34	
2030	6614003	1.95		1.66	

Notes:
1) 2008 Fleet Data (MOBILE6.2 files: KENT10OZ.TB1, KENT20OZ.TB1, KENT30OZ.TB1).
2) D/K MPO Land Use Data - DelDOT TDM TAZ File A30POPemp_N3.DBF
3) DelDOT Transportation Model Network File BASE_NETWORK_15B.NET (D/K MPO Project List 11-25-08)
4) DelDOT/WRA Travel Model CLEAN MODEL 15B 1-26-09

Conclusions

The Dover/Kent County MPO Regional Transportation Plan and the 2011-2014 Transportation Improvement Program meet the conformity criteria established by the EPA and the Federal Highway Administration (FHWA). According to the analysis, the plan contributes required emissions reductions for 2010, 2020 and 2030 in comparison to the 2008 budgets for VOCs and NOx.

Program Categories and Project List

The FY 2011-2014 TIP mirrors DelDOT's FY 2010-2015 Adopted CTP and the FY 2011-2016 Draft CTP. Projects are divided according to the portion of the transportation system in which each is allocated – Road System: Expressways, Arterials, Collectors, Locals, Bridges and Other. Transit System: Vehicles, Amenities, and Rail.

Table 6 lists statewide projects and programs for which funding is being requested for fiscal years 2011, 2012, 2013 and 2014. These are predominantly funding programs that include projects in all three Delaware counties. More information about these projects and programs can be found in the FY 2011-2016 draft CTP.

Appendix A lists the projects in the MPO's planning area for which funding is being requested for fiscal years 2011, 2012, 2013 and 2014. The majority of the projects are Road System projects. The appendix provides a project description, location map and pictures of each project. Funding, both authorizations and spend are listed in thousands for each project in each year of the TIP

Appendix E lists projects which have been submitted to the TIP, but have not been funded. Once a project is submitted to the TIP, it is kept on the prioritized list until it is funded or the MPO decides to remove it.

Table 6: Statewide Projects

	PROJECT	FY 2011 TOTAL	FY 2012 TOTAL	FY 2013 TOTAL	FY 2014 TOTAL	2011-2014 TOTAL
ROAD						
LOCALS		**1,106.0**	**1,106.0**	**1,106.0**	**1,106.0**	**4,424.0**
BRIDGES		**4,216.2**	**4,500.0**	**18,000.0**	**18,000.0**	**44,716.2**
Bridge Management		**2,625.0**	**3,000.0**	**3,000.0**	**3,000.0**	**11,625.0**
Bridge Preservation Program		**1,591.2**	**1,500.0**	**15,000.0**	**15,000.0**	**33,091.2**
TRANSPORTATION ENHANCEMENTS		**4,626.2**	**4,326.2**	**4,326.2**	**4,326.2**	**17,604.8**
Transit Enhancements (FTA)		**76.2**	**76.2**	**76.2**	**76.2**	**304.8**

Transportation Enhancements (FHWA)	**4,550.0**	**4,250.0**	**4,250.0**	**4,250.0**	**17,300.0**
PAVING & REHABILITATION	**68,743.0**	**66,374.0**	**82,300.0**	**87,300.0**	**304,717.0**
SIGNAGE & PAVEMENT MARKINGS	**3,200.0**	**2,400.0**	**2,400.0**	**3,200.0**	**11,200.0**
MATERIALS & MINOR CONTRACTS	**6,300.0**	**6,000.0**	**5,900.0**	**5,900.0**	**24,100.0**
RAIL CROSSING SAFETY	**2,196.7**	**2,196.7**	**2,296.7**	**2,246.7**	**8,936.8**
SAFETY	**2,719.4**	**2,719.4**	**2,719.4**	**2,719.4**	**10,877.6**
TRAFFIC CALMING	**400.0**	**400.0**	**400.0**	**400.0**	**1,600.0**
INTERSECTION IMPROVEMENTS	**6,880.0**	**6,200.0**	**6,560.0**	**5,600.0**	**25,240.0**
SUPPORT					
AERONAUTICS	**1,074.9**	**924.9**	**924.9**	**924.9**	**3,849.6**
PLANNING	**7,806.9**	**8,300.7**	**8,300.7**	**8,397.2**	**32,805.4**
TECHNOLOGY	**7,141.2**	**7,281.2**	**7,281.2**	**7,281.2**	**28,984.8**
HEAVY EQUIPMENT	**5,250.0**	**5,000.0**	**5,000.0**	**5,000.0**	**20,250.0**
TRANSPORTATION FACILITIES	**11,800.0**	**6,900.0**	**6,600.0**	**6,000.0**	**31,300.0**
TRANSPORTATION MANAGEMENT IMPROVEMENTS	**8,200.0**	**8,200.0**	**9,621.3**	**8,200.0**	**34,221.3**
ENGINEERING & CONTINGENCY	**25,331.2**	**26,070.2**	**26,831.3**	**27,615.2**	**105,847.8**
ADVANCED ACQUISITIONS	**2,500.0**	**2,000.0**	**2,000.0**	**2,000.0**	**8,500.0**
FIRST STATE FINANCIALS	**-**				
MOTOR FUEL TAX COMPLIANCE AND ANTI-TAX EVASION	**90.6**	**90.6**	**90.6**	**90.6**	**362.4**

TRANSIT					
RAIL	**300.0**	**350.0**	**350.0**	**350.0**	**1,350.0**
TRANSIT FACILITIES	**1,400.0**	**100.0**	**157.2**	**100.0**	**1,757.2**
TRANSIT VEHICLES	**4,091.5**	**9,698.1**	**2,489.0**	**2,383.8**	**18,662.4**
GRANTS AND ALLOCATIONS					
MUNICIPAL STREET	**5,000.0**	**5,000.0**	**5,000.0**	**5,000.0**	**20,000.0**
COMMUNITY TRANSPORTATION	**16,750.0**	**16,750.0**	**16,750.0**	**16,750.0**	**67,000.0**
	205,075.0	**192,887.9**	**217,404.4**	**220,891.2**	**836,258.4**