DELAWARE VALLEY REGIONAL PLANNING COMMISSION

FISCAL YEAR 2017 PLANNING WORK PROGRAM

CHAPTER ONE

INTRODUCTION

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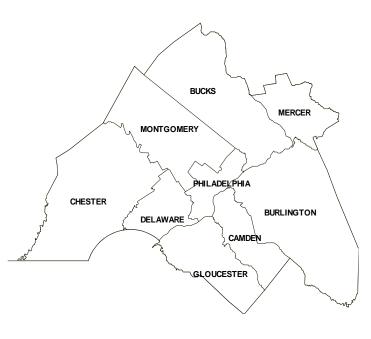
DELAWARE VALLEY REGIONAL PLANNING COMMISSION

Fiscal Year 2017 Planning Work Program

Introduction

The Fiscal Year (FY) 2017 Planning Work Program for the Delaware Valley Regional Planning Commission (DVRPC) incorporates the planning programs and support activities of DVRPC and its member governments for the period July 1, 2016 through June 30, 2017. A Planning Work Program (PWP) is developed annually by the DVRPC Board with its planning partners to reflect the region's short-range planning needs.

Federal laws and regulations require the formation of a metropolitan planning organization (MPO) for each urbanized area with a population of more than 50,000 to coordinate a comprehensive, coordinated and continuing transportation planning program. The Delaware Valley Regional Planning Commission (DVRPC) is the designated MPO for the ninecounty metropolitan region that includes Bucks, Chester, Delaware, and Montgomery counties and the City of Philadelphia in Pennsylvania, and Burlington, Camden, Gloucester, and Mercer counties in New Jersey.



DVRPC's mission is to unite the region's elected officials, planning professionals and the public with a common vision of making a great region even greater. Shaping the way we live, work and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment and enhancing the economy.

Work Program Organization

The FY 2017 Planning Work Program is divided into six chapters. Chapter One serves as an introduction to DVRPC's operations and relationships to other transportation and planning organizations in the Delaware Valley region. Chapter Two provides details of the Program Areas and Projects which DVRPC will be undertaking during FY 2017. Chapters Three and Four contain the Supportive Regional Highway Planning Program (SRHPP) and the Transit

Support Program (TSP), respectively. These programs provide funding from DVRPC for planning activities carried out by our member governments and transit operating agencies. Chapter Five includes other projects funded through the PWP to be carried out by member governments. Chapter Six includes planning efforts anticipated to be funded and carried out by other regional transportation organizations to ensure coordinated transportation planning efforts. Projects initially funded in prior years that will be carried over into FY17 are included in the Appendix of this document.

Within the framework of available financial and human resources, this work program effectively addresses the key regional issues facing the Delaware Valley. The program, however, is dynamic in nature and may be modified to respond to any emerging priority issue or special need vital to the orderly growth and development of the Delaware Valley. Throughout the fiscal year new projects and funding may be added to this Planning Work Program through an amendment process which would require an approval by the DVRPC Board.

Planning Emphasis Areas

The products produced through this PWP include technical analyses, policy recommendations, and planning services for member state and local governments. The Program Areas and Projects outlined in this document are directed by priority planning emphasis areas as identified by our federal and state partners. Planning activities strive to incorporate the requirements of the most recent federal surface transportation legislation, Fixing America's Surface Transportation (FAST) Act where applicable;

Examples of these planning emphasis areas include the following:

- Include actions which foster a performance-based planning approach which result in recommendations that will operate, maintain and improve a safe, efficient, and reliable multimodal transportation network. These actions should include involvement with USDOT and state DOTs on the development and implementation of selected performance measures;
- Promote cooperation and coordination across MPO boundaries and across state boundaries;
- Develop "Ladders of Opportunity" which provide access to essential services as part of the transportation planning process;
- Improve traffic operations through Intelligent Transportation System upgrades and enhanced multijurisdictional and multidisciplinary coordination;
- Pursue congestion relief strategies such as Transportation Demand Management (TDM), low cost operational improvements and Complete Streets implementation;

- Continue to enhance the project development/problem intake process and local public agency project delivery;
- Improve primary freight corridors and intermodal freight connections for more efficient access and improved system performance;
- Explore risk management strategies for improving the resilience of the transportation infrastructure against the impacts of extreme weather;
- Include planning activities that support land use and transportation linkages;
- Coordinate with the states' Comprehensive Strategic Highway Safety Plan to focus on data-driven safety planning efforts particularly related to intersections, lane departure, pedestrians and aggressive driving;
- Provide assistance to the state DOT in the delivery of the Local Technical Assistance Program (LTAP);
- Maintain and/or update the region's Long-Range Plan, Transportation Improvement Programs (TIP), Travel Demand Model, Highway Performance Monitoring System (HPMS), Congestion Management Process (CMP), Public Participation Plan, and Title VI Plan as appropriate; and
- Leverage additional funding sources (both public and private) and promote partnerships.
- Continue and enhance opportunities for public participation and input in plans and programs including utilization of advanced visualization techniques.

Federal Legislation Requirements

As the federally designated metropolitan planning organization for the region, DVRPC must respond to the planning requirements of two federal laws: the FAST Act and the Clean Air Act Amendments of 1990 (CAAA). The FAST Act, adopted in 2015, continues many of the regional transportation planning programs advanced in MAP-21.

The FAST Act authorizes \$305 billion in federal highway, transit, safety and rail programs for five years. Under this legislation, the MPO is a partner in the planning for the use of all federal transportation funds. The FAST Act also requires the MPO to produce and oversee a TIP, the region's short-range investment plan, which must be consistent and serve to implement the region's long-range plan. The TIP prioritizes the Delaware Valley's transportation-related projects within the constraints of federal funding that Pennsylvania and New Jersey can reasonably expect to receive within four years.

The FAST Act also identifies ten planning factors that must be considered in the metropolitan planning process. The ten planning factors listed below are

integrated within the Program Areas and Projects detailed in Chapter Two of this Work Program.

- •Economic Vitality
- Safety
- •Security
- •Accessibility and Mobility of People and Freight
- •Environmental and Energy Sustainability and Planning Consistency
- •Enhanced Integration and System Connectivity
- •Efficient System Management and Operation
- Preservation of the Existing System
- •Enhance Travel and Tourism
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation

The requirements of the Clean Air Act Amendments (CAAA) establish a program and set a timetable for improving the nation's air quality. The Philadelphia area has been classified as a non-attainment area for ground-level ozone and fine particulate matter and must attain the mandated air quality standards for these factors. Although the responsibility for attaining the standards falls directly on the states, DVRPC is responsible for a key role in developing many of the programs relating to air quality attainment. The projects in the region's TIP and the Long-Range Plan must conform to the states' air quality implementation plans. These projects must not lead to any further degradation of the region's air quality, but, instead improve air quality and move the region toward meeting the federal clean air standards.

Coordination with Member Governments and Other Planning Partners

DVRPC's annual Planning Work Program is also defined in part by the planning needs of the city and county member governments. The member governments' contribution to a Comprehensive Planning fund enables DVRPC to provide a local match to other federal, state, or private funds to undertake projects of regional significance that require a local contribution. Comprehensive Planning funds also support initiatives such as open space and environmental planning projects, economic development planning, housing analysis, and local or regional land use planning.

Many programs, while broad in scope, effect transportation conditions in the region. For example, DVRPC's Transportation and Community Development Initiative (TCDI) Program is an important effort whereby DVRPC provides planning grants, based on the competitive review of proposals, to counties and municipalities, to support projects that link revitalization, economic development and transportation needs.

DVRPC also responds to the needs of other partners, including state and federal agencies, operating authorities, as well as nonprofit foundations and organizations. Consequently, DVRPC annually undertakes a number of special

projects funded under a variety of programs to address pressing regional issues. DVRPC continues to implement programs like Classic Towns of Greater Philadelphia, which is aimed at growing, revitalizing, and supporting the region's older suburbs and urban neighborhoods; coordination with the region's environmental protection and open space organizations and reporting on the region's locally funded open space programs; and promoting linkages between active transportation and healthy communities. DVRPC continues its involvement in PennDOT's Linking Planning and NEPA initiative activities, meetings and program tasks and continues energy, climate change and resiliency initiatives that include coordination and facilitation, analyses, management tool development and technical assistance to local governments.

Complementary and supportive initiatives also continue, including the development of the region's Comprehensive Economic Development Strategy, planning for transit system improvements, advancing transportation operations and safety projects, and responding to many other needs of DVRPC's member governments and agencies.

Supportive Regional Highway Planning Program and Transit Support Program

Each year DVRPC passes through federal highway and transit planning funds to member governments and operating agencies to support their participation in the regional transportation planning process. The funds assist these organizations to develop and maintain their own plans, programs and data which helps inform the development of regional plans and programs such as the TIP, Long-Range Plan, Congestion Management Process Transportation Operations Master Plan and Regional Transportation Safety Action Plan. Detailed individual scopes of work for each recipient in the Supportive Regional Highway Planning Program are found in Chapter Three of this document. The detailed individual scopes of work for The Transit Support Program which provides comprehensive planning, programming, monitoring and coordination of transit services within their jurisdiction can be found in Chapter Four. In addition to their core planning functions, both programs offer a limited amount of funding for special planning studies to address current areas of need for the recipients.

FY 2017 Program Budget

The total budget for the FY 2017 Planning Work Program is \$28,887,918, an increase of \$862,736 from the FY 2016 Planning Work Program. Table A, *Funding Summary*, shows DVRPC's funding by source. Table B, *Project Funding by Source* (see Chapter 2), shows the budget and funding sources for all Program Areas and Projects.

03-10-16

DELAWA						
	FY 2	017 PLANNI				
			G SUMMAR			
FUNDING SOURCE	GENERAL	HIGHWAY	TRANSIT	COMP	OTHER	TOTAL
	FUND	PROGRAM	PROGRAM	PLANNING	PROGRAMS	
MISCELLANEOUS	\$0	\$0	\$0	\$0	\$3,754,993	\$3,754,993
FAA	0	0	0	0	90,000	90,000
			4 400 000		000.000	4 700 000
PA FTA	0	0	1,100,000	0	699,000	1,799,000
PA FHWA	0	3,872,000	0	0	2,773,900	6,645,900
PA STATE	0	650,000	0	0	326,225	976,225
PA OTHER	0	0	0	0	322,000	322,000
LOCAL	0	0	0	0	0	0
	0	0	440.074	0	44.4.05.4	007 005
	0	0	412,371	0	414,854	827,225
	0	2,275,303	0	0	853,375	3,128,678
NJ STATE	0	0	0	0	0	0
LOCAL	0	0	0	0	22,500	22,500
PA LOCALS	\$138,588	\$318,000	\$275,000	\$330,345	\$2,220	\$1,064,153
Bucks County	21,620	31,530	32,719	51,534		137,847
Chester County	17,240	59,906	43,626	41,095		162,311
Delaware County	18,155	50,448	32,719	43,275	444	145,041
Montgomery County	27,648	47,295	43,626	65,904	444	184,917
City of Philadelphia	52,747	126,118	119,972	125,729	444	425,010
City of Chester	1,178	2,703	2,338	2,808	0	9,027
				-		
NJ LOCALS	\$55,894	\$0	\$0	\$165,074	\$1,776	\$222,744
Burlington County	15,516	0	0	45,825	444	61,785
Camden County	15,075	0	0	44,520	444	60,039
Gloucester County	9,966	0	0	29,433	444	39,843
Mercer County	9,731	0	0	28,739	444	38,914
City of Camden	2,672	0	0	7,891	0	10,563
City of Trenton	2,934	0	0	8,666		11,600
SUBTOTAL DVRPC	\$194,482	\$7,115,303	\$1,787,371	\$495,419	\$9,260,843	\$18,853,418
MEMBER GOVERNM						
PA FTA	\$0	\$0	\$900,000	\$0		900,000
PA FHWA	0	628,000	0	0	1,350,000	1,978,000
	_	_		_	-	
NJ FTA	0	0	386,600	0	0	386,600
NJ FHWA	0	0	0	0	2,739,000	2,739,000

TABLE "A" DELAWARE VALLEY REGIONAL PLANNING COMMISSION FY 2017 PLANNING WORK PROGRAM FUNDING SUMMARY

225,000

\$1,608,250

\$3,395,621

96,650

0

0

0

0

\$0

\$495,419

300,000

252,250

3,000,000

\$7,641,250

\$16,902,093

682,000

348,900

3,000,000

\$10,034,500

\$28,887,918

0

0

0

\$0

\$194,482

157,000

\$785,000

\$7,900,303

0

0

PA LOCALS

NJ LOCALS

SUBTOTAL

GRAND TOTAL

OTHER

Agency Roles and Responsibilities

DVRPC, as the regional MPO, has the lead responsibility to ensure that the transportation planning process is being carried out in accordance with federal and state regulations. Several other agencies, however, also play key roles in the transportation planning process, as discussed below.

State Departments of Transportation (DOTs) — DVRPC works cooperatively with the Pennsylvania and New Jersey Departments of Transportation (PennDOT and NJDOT) as well as the Delaware and Maryland DOTs in carrying out all of its transportation and air quality planning activities. PennDOT and NJDOT representatives serve on all transportation related committees, as well as the DVRPC Board. Delaware and Maryland transportation departments serve on the committee responsible for coordinating transportation-related air quality issues.

The state DOTs are responsible for a number of activities that affect the metropolitan planning process. They are charged with development of statewide long-range plans, which include coordination with the long-range transportation plan developed by DVRPC. Each state DOT also develops a Statewide Transportation Improvement Program (STIP), which must embody the appropriate sections of DVRPC's regional TIP. Accordingly, both state DOTs participate actively in the process by which projects are prioritized and included in DVRPC's TIP.

The state DOTs have the lead responsibility for developing the statewide management systems and tools provided for in MAP-21 and carried over into the FAST Act. Development of these systems involves extensive consultation with DVRPC and other MPOs. These systems help DVRPC to identify transportation needs and recommendations for addressing them.

The state DOTs also serve as the primary intermediaries between DVRPC and federal transportation agencies, including the Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and Federal Aviation Administration (FAA).

City and County Planners – The nine counties (Bucks, Chester, Delaware, Montgomery, Philadelphia, Burlington, Camden, Gloucester, and Mercer) and three cities (Chester, Camden, and Trenton) that comprise the DVRPC Board and region are key partners in the regional planning process. Using the federal planning funds made available to DVRPC, funding is passed through to the member governments to support their transportation planning work and the extensive coordination needed to prepare and maintain a regional process. Member governments have seats on all DVRPC working committees, identify and prioritize projects for the TIP, contribute needed input into the development of the Long Range Plan, and provide the local knowledge and perspective needed to integrate with the regional planning process.

Transit Operators — The largest provider of public transportation in the Delaware Valley region is the Southeastern Pennsylvania Transportation Authority (SEPTA). Substantial service is also provided by New Jersey Transit Corporation (NJT), Port Authority Transit Corporation (PATCO), and Pottstown Area Rapid Transit (PART). Each is responsible for both the capital needs and service needs in their respective service areas. They are the principal source for identifying transit projects for inclusion in the transit portion of DVRPC's TIP. They also carry out many of the transit planning activities, funded in part through DVRPC's Planning Work Program and through other sources. PATCO, a subsidiary of the Delaware River Port Authority (DRPA), is responsible for operations management of the transit agency, while DRPA is responsible for planning. All transit operating agencies participate in DVRPC Board and committee meetings.

State Departments of Environmental Protection (DEPs) — The Pennsylvania and New Jersey Departments of Environmental Protection have overall responsibility for compliance with the Clean Air Act, including development and adoption of air quality plans known as State Implementation Plans (SIPs). Both agencies rely on DVRPC as the lead planning agency for highway-related control measures for air quality in the metropolitan area. As a result, DVRPC provides transportation data used in emissions inventories and identifies and analyzes potential air quality strategies. State air quality agencies from all four states in the Philadelphia Ozone Nonattainment Area serve on DVRPC's Regional Air Quality Committee.

DVRPC's Working Committees

One of the primary roles of DVRPC is to coordinate its planning programs, and those of its member governments, with citizens residing in the region. To accomplish this objective, the DVRPC Board has established several committees to address the regional issues of transportation, land use, air quality, housing, airports, goods movement and citizens' concerns. These committees enhance the regional forum provided by the Board and extend it so that all interested and involved parties can discuss and provide direction for policy on regional planning in the Delaware Valley. The working committees include:

- The Regional Technical Committee (RTC) serves as an advisory unit, reporting to the DVRPC Board, in reference to: (1) Transportation Planning consisting of a long-range element and a short-range element; (2) the Transportation Improvement Program; (3) the Transportation Planning Work Program consisting of the DVRPC Work Program; (4) all other transportation planning as directed by the Board and (5) other functional planning projects and programs related to the Long-Range Plan and the Work Program.
- The Public Participation Task Force (PPTF) provides access for the public to the regional planning and decision-making process, to review timely issues,

and to advise on public outreach strategies. The Task Force is composed of appointed members, as well as citizens at large, who are selected through an application process.

- The Delaware Valley Goods Movement Task Force (DVGMTF) was established to maximize the Delaware Valley's goods movement capability by sharing information and technology between public and private freight interests, promoting the region's intermodal capabilities and capacity, and developing and implementing a regional goods movement strategy. It advises the DVRPC Board on all goods movement issues, studies and projects.
- The Information Resources Exchange Group (IREG) provides a forum for the exchange of ideas, practices and experiences among regional data managers.
- The Regional Community and Economic Development Forum (RCEDF) facilitates the various economic development, land use and housing agencies in the region to work together on issues of regional importance, fosters greater cooperation between agencies, and strives to coordinate regional transportation and land use planning activities with the needs of the economic development community.
- The Regional Aviation Committee (RAC) provides technical and policy guidance concerning regional airport systems to the states, DVRPC and the Federal Aviation Administration.
- The Regional Safety Task Force (RSTF) is an interdisciplinary team of safety stakeholders/professionals that offers guidance and direction to the Commission's transportation safety planning program. The focus of the task force is diverse and addresses all users and operators of the transportation network, as well as all modes.
- The Transportation Operations Task Force (TOTF) is the focal point of regional ITS and operations coordination. The Task Force is a forum for agencies to share information on ITS deployments, develop a consensus on regional operations issues, and respond to federal and state initiatives. It has the ability to establish subcommittees to tackle specific issues as they arise. As a technical-level group, it informs DVRPC's ITS and Operations planning activities that in turn support the Task Force.
- The Central Jersey Transportation Forum (CJTF) has been meeting since 1999 to address concerns of municipalities in Mercer, Middlesex, and Somerset counties focused on the US 1 corridor. High-level representatives from twenty-five municipalities, three counties, and numerous state agencies and other organizations meet to coordinate and to discuss transportation and land use issues and implement solutions.

- The Urban Waterfront Action Group (UWAG) was created in 1980 through the PA Coastal Zone Management (CZM) Program to provide "one-stop" shopping for information about waterfront development permits in the Delaware Estuary in Pennsylvania.
- The Healthy Communities Task Force was convened in 2014 to bring together public health, planning, and related professionals in the Greater Philadelphia area. The Task Force provides a venue for people interested in fostering healthy communities to learn about other communities, both near and far, that are successfully integrating planning and public health. It serves as a way for professionals in these fields and stakeholders in our communities to deepen their understanding of healthy communities and build the relationships to achieve them.

FY 2017 Program Areas and Projects

This Work Program continues the reorganized structure begun in FY 2008 which consolidated many related projects into program areas. Some initiatives remain as stand alone projects due to special circumstances. Each program's concept allows various tasks and initiatives to be emphasized from year to year at the DVRPC Board's direction. The list below shows each of DVRPC's major program areas and their goals. Completion of these Program Areas and Projects may require the purchase of equipment or services

Technical Assistance to Member Governments

Ensure intergovernmental coordination, technical evaluation, and regional policy formulation on transportation issues, projects, and plans through monthly meetings of the Regional Technical Committee and quarterly meetings of the Regional Aviation Committee (including meeting minutes and pertinent presentations, research and technical assistance activities). Special studies and local asset inventory activities are also included.

RideECO Marketing

RideECO provides area employers the opportunity and structure to provide employees with a transit benefit per federal IRS tax code, up to \$255/month as of January 2016. Originally instituted under clean air legislation, this program has become popular among employers since it provides a tax break for both participating employees and their employers. All regional transit providers support the program and accept its vouchers, as do most third-party vanpool operators.

Regional Forum

This project ensures continued intergovernmental and policy coordination, as well as administrative oversight by the DVRPC Board and its Committees, through the provision of secretariat and management services. Through the Board Policy Committee, identification, monitoring and formulation of policy analyses for issues of regional significance is undertaken. Staff activities include researching and monitoring key issues, review of pertinent federal and state legislation or policy guidance, technical assistance and drafting proposed position statements or comment letters for consideration by the Policy Committee and the Board.

Work Program Administration

Preparation of the Unified Planning Work Program includes negotiating program and project funding, monitoring progress throughout the year, and preparing and submitting required applications and contract documents. Administering the UPWP also includes preparing, administering and providing technical assistance for contracts between DVRPC and PA/NJ member governments to advance regional highway planning and transit supportive planning at the local level.

Public Participation Information and Visualization Techniques

DVRPC is committed to reaching audiences both familiar and unfamiliar with the regional planning process. This program supports DVRPC's responsibilities related to legal and public noticing, public information requests, and maintaining the Commission's website and social media platforms. This program also supports project-specific public outreach and meeting facilitation, and agency-wide earned media, government relations, and public affairs. DVRPC is also committed to expanding visualization techniques to portray and present data, plans, complicated processes, and plans.

Title VI and Environmental Justice

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have had a longstanding policy of actively ensuring nondiscrimination in federally funded activities under Title VI of the 1964 Civil Rights Act and the 1994 President's Executive Order on Environmental Justice. A renewed emphasis on Title VI issues and environmental justice has become a more integral focus of the transportation planning and programming process. This renewed commitment is reflected in DVRPC's Work Program, publications, communications, public involvement efforts, and general way of doing business.

Regional Congestion Management Process

The CMP is a systematic process for managing congestion in the DVRPC region. It analyzes the multimodal transportation system, defines congested corridors, and results in agreed-upon strategies for each congested subcorridor at a regional planning level. The CMP strengthens the connection between the Long-Range Plan, TIP, and other projects. It includes work with DOT and county project managers and others to help make transportation investments more effective.

Transportation Operations

Transportation Operations is one of the transportation planning factors mandated by federal metropolitan planning regulations. It represents a broad array of short-term improvement strategies employing technology and interagency coordination that will address recurring congestion and incident management.

Corridor Planning

This program is the nexus between the long-range plan and project development. Corridor planning takes needs identified in the long-range plan related to routes identified as essential to the movement of goods and people in the region, refines the understanding of those needs, and evaluates potential strategies to address them. The process is designed to better inform regional transportation and land use decision making.

Regional Transit Planning Program

This program supports the conduct of transit planning studies, with project selections guided by our planning partners. Work includes evaluations of proposed services or facilities, corridor level transit analysis, evaluations of enhancements to transit access, studies to improve bicycle and pedestrian connectivity with transit, and examinations of the relationship between land use and transit for specific sites or corridors.

Bicycle & Pedestrian Planning Program

This program promotes transportation facilities and land use decisions that support active modes of transportation to make walking and biking more safe, convenient, affordable, and attractive transportation options throughout the region. Projects emphasize stakeholder outreach, the development and sharing of new data resources using bicycle and pedestrian counters, and the conduct of analysis to develop appropriate, safe, and context-sensitive bicycle and pedestrian facilities and "complete streets" in communities throughout the DVRPC region. As an area of focus, this work includes an emphasis on Active Transportation and Active Places—the idea that those places where walking and biking (Active Transportation) are prevalent are good for the vibrancy and quality of life of a community (Active Places), and vice versa. With this integrated approach, communities gain health benefits, increased mobility, economic stability, and an overall sense of vibrancy.

Delaware Valley Freight Planning

This program is intended to maximize the Delaware Valley's position in the global economy by promoting cooperation within the local freight community and implementing a regional goods movement strategy in accordance with State DOT and FAST Act guidance.

Transportation Safety and Security

This program supports the goals of DVRPC's Long-Range Plan, Regional Safety Action Plan, and the DOTs' Strategic Highway Safety Plan. It incorporates the transportation safety and security planning factors, as required by federal metropolitan planning regulations, into the transportation planning process, and seeks to improve the safety and security of the region's transportation system, while maintaining acceptable levels of accessibility and efficiency. The program addresses transportation safety and security from a

multipronged approach in which coordination and outreach are important factors.

Travel Monitoring

This continuing project collects and processes travel data, the primary form being traffic counts, including hourly and 48 hour traffic volumes, for selected locations on the regional highway network. Data collected will provide input to VMT forecasting, the Traffic Monitoring System (TMS), the Congestion Management Process (CMP), travel simulation models, individual project level analysis and traffic monitoring and trend analysis. This information is vital to all project studies that address highway deficiencies and proposed solutions. The types of data collected have recently been enhanced to include the monitoring of selected bicycle and pedestrian movements. In addition, DVRPC facilitates the periodic review and revision of the highway functional classification system.

Smart Growth

The Smart Growth work program will continue DVRPC's work on linking land use and transportation planning while also enhancing the level of outreach, education, coordination, advocacy, and overall support for smart growth principles. This program supports greater understanding of sprawl and its impacts on the region's accessibility and mobility, land preservation, urban revitalization, and economic development.

Economic Analysis and Coordination

The Economic Analysis and Coordination program supports and fosters coordination and information exchange between the economic development and business community on one hand, and the transportation and land use planning community on the other. The program includes various economic analyses and reports and administration of the Regional Community and Economic Development Forum. It incorporates the voices of the economic development and business community into DVRPC's planning activities.

Strategies for Older Communities

Many of the region's oldest suburbs and boroughs face social and economic challenges due to aging infrastructure and disinvestment that are uncharacteristic of more affluent growing suburbs. At the same time, the older suburbs often lack the resources and attention available to the region's core cities to address these issues. This program will continue to convene forums for these municipalities to learn from outside experts as well as their peers, while also providing technical assistance.

Energy and Climate Change Initiatives

This program focuses the attention of local governments on developing policies and actions for reducing energy use and associated greenhouse gas emissions and adapting to predicted climate change impacts by providing leadership, coordination, and technical assistance on these issues.

Long-Range Plan

The Long-Range Plan program fosters and maintains a long-range vision to guide development patterns and transportation investments in the region and identifies strategies to implement the vision. The program ensures that the region's transportation investments are linked to long-range land use, environmental protection, economic development, and transportation goals, while providing guidance and a policy framework for numerous other DVRPC programs.

Air Quality Planning

The Air Quality Planning program improves air quality in the region through coordination of intra- and interregional policies, public education and demonstration of transportation conformity of the region's long-range plan and transportation improvement programs.

Environmental Planning

The Environmental Planning program promotes a clean and sustainable environment and implementation of *Connections 2040* by assisting in efforts to preserve the 2040 Greenspace Network and 2040 Conservation Focus Areas, and to complete The Circuit (Greater Philadelphia's regional trail network) for natural resource protection, agricultural preservation, outdoor recreational, and alternative commuting purposes.

Data Exchange and Analysis

This program facilitates the acquisition, organization, analysis, automation, and dissemination of available data sets to support all regional land use and transportation planning activities. This data includes (but is not limited to) newly released Census data products, residential building permit data, and Home Mortgage Disclosure Act (HMDA) data, as well as data for which DVRPC is a primary source, including the TIP, traffic counts, land use and aerial photography. Additional program tasks include maintaining DVRPC's regional online information network; coordinating with the Census Bureau; and administering the Commission's Information Resources Exchange Group (IREG).

Transportation Improvement Program (TIP)

This program area provides for transportation financial planning and capital programming for the DVRPC region. Staff will work with state, regional, and federal planning partners to identify financial resources available from public and private sources to implement the Transportation Improvement Program (TIP) as well as the long-range plan. Serving as the facilitator for the region's stakeholders, DVRPC will both develop and maintain a regional Transportation Improvement Program (TIP) for Pennsylvania and New Jersey, as mandated by federal regulations; identify and select transportation projects that address the needs of the region; advance the goals of the long-range plan; document modifications to the program; and provide information and documents related to those processes, funding, and capital programming issues. This information will be provided to stakeholders and the public via

meeting materials and postings on the DVRPC website. DVRPC will undertake an extensive public participation program that responds to the requirements of FAST Act and environmental justice concerns, as it relates to this project.

Performance Based Planning and Asset Management

Greater and greater demands are straining the region's transportation system: increased congestion, more truck travel, growing population, aging infrastructure, higher customer expectations, and escalating construction and operating costs. These factors threaten the viability of our transportation system unless the region is able to more effectively and efficiently deploy financial resources to maintain and upgrade existing assets. A more strategic and systematic process of operating, maintaining, upgrading, and expanding these physical assets is needed. By effectively refocusing business and engineering practices on life cycle costs and benefits, better resource allocation and utilization will result. Such an approach requires quality information and well defined objectives.

Travel and Land Use Modeling

The Travel and Land Use Modeling work program element is intended to develop, enhance, maintain, and apply DVRPC's Land Use, Travel Demand, and Air Quality Models in support of a wide variety of planning activities. Short and long-range regional, corridor, and facility planning studies require accurate socioeconomic, land use, and travel forecasts. Certification of the regional plan and planning process require up to date models that address federal regulations. The models that produce these projections and perform these analyses need to be validated and calibrated with current data. Furthermore, refinement and revalidation of DVRPC's land use, travel simulation, and mobile source emissions models are needed on a continuing basis to maintain the accuracy and credibility of forecasts and to respond to new mandates and guidance from the federal government, state agencies, and member governments. In addition to the studies performed by DVRPC, staff will also provide support and assistance under this program to DVRPC's consultants as they upgrade the land use and travel models and related software.

Competitive Program and Project Management

MAP-21, the current federal authorizing legislation for highways and transit, includes funding for nontraditional transportation projects such as multiuse trails, streetscapes, historic restorations, alternative fueled vehicles, and travel demand management, local highway and bridge projects, as well as projects that contribute to the attainment of the Clean Air Act by reducing emissions from highway sources. Three categories of federal funding that provide broad eligibility for these nontraditional and local transportation projects are: Transportation Alternatives, Congestion Mitigation and Air Quality and the Surface Transportation Program. TIP funds are also provided to the subregions through the Local Concept Development Program is to complete a

study that identifies potential alternatives, identifies any environmental issues, and completes a conceptual design. This will ensure that projects that move into Preliminary Engineering are ready to move forward in a timely manner and are eligible for inclusion in the State Transportation Improvement Program (STIP).

Geographic Information Systems

A Geographic Information System (GIS) is an important planning tool that provides benefits to DVRPC, its member agencies, and others by supporting state, regional, county, and local planning and technical projects. GIS is the integration of hardware, software, and data used to collect, store, analyze and display spatially referenced information. GIS allows planners to view and query spatial data and perform advanced analysis to discover relationships, patterns, and trends that support their planning activities. Visualizing information is an integral part of nearly every project, and GIS is highly utilized to create maps necessary for meetings and reports. Improving the accessibility of spatial data is critical to the continued success of GIS and tasks under this program will be coordinated with the Data Exchange and Analysis program.

The Planning Work Program (PWP) serves as an important implementation tool to achieve the directives of the FAST Act. In an effort to highlight the connection between the individual Program Areas in the Planning Work Program and the FAST Act, a matrix was developed that shows that linkage (Figure 1). Both primary and peripheral associations between the Program Areas and the ten Planning Factors are shown. As DVRPC develops future work programs, we will continue to strive to meet the key principles of the surface transportation act current at that time.

In addition to addressing the federal legislative requirements, the PWP serves as an important implementation tool to achieve the future land use and transportation development vision that is set forth in the region's Long Range Plan. The four key principles of the Long-Range Plan serve as a framework for many of the projects and programs undertaken by DVRPC. In an effort to highlight the connection between the individual Program Areas of the Work Program and the Long-Range Plan, a matrix was developed that shows the linkage between these two core documents (Figure 2). Both primary and peripheral associations between the Program Areas and the four key principles of the Long-Range Plan are shown.

	Figure 1:	FAST Act P	FAST Act Planning Factors	ors						
	1								:	-
DVRPC PROGRAM AREAS	1. Economic Vitality	2. Safety	3. Security	 Accessibility and Mobility 	5. Environment and Energy	6. Integration and Connectivity	7. Efficient System Management/Operations	8. System Preservation	9. Resiliency and Reliability	10. Travel and Tourism
Technical Assistance to Member Governments	•	•	•	•	•	•	•	•	•	•
RideECO Marketing	0			•	0	•				
Regional Forum	•	•	•	•	•	•	•	•	•	•
Work Program Administration	0	0	0	0	0	0	0	0	0	0
Public Participation, Information and Visualization Techniques	•	•	•	•	•	•	•	•	•	•
Title VI and Environmental Justice	•	0	0	•	•	•	0	0	0	0
Regional Congestion Management Process	•	0	0	•	0	•	•	0	0	0
Transportation Operations	0	•	•	•	0	•	•	0	0	•
Corridor Planning	0	•	0	•	•	•	•	0	•	0
Regional Transit Planning Program	•	•	•	•	0	•	•	•	•	•
Bicycle and Pedestrian Planning Program	•	•		•	0	•	•	0	0	•
Delaware Valley Freight Planning	•	•	•	•	0	•	•	•	•	0
Transportation Safety and Security		•	•	0			0		•	0
Travel Monitoring	0	•		•		0	•			•
Smart Growth	•			•	0	0	0	•	0	0
Economic Analysis and Coordination	•			•	•	0	0	0	0	•
Strategies for Older Communities	•			•	0	0		0	0	•
Energy and Climate Change Initiatives	•		0		•	0	0	0	•	
Long-Range Plan	•	•	•	•	•	•	•	•	•	•
Air Quality Planning					•				0	
Environmental Planning				0	•	0	0	0	•	0
Data Exchange and Analysis	•			•	0		0			
Transportation Improvement Program	0	•	•	•	0	•	•	•	•	0
Performance-Based Planning and Asset Management	0	0	0	0	0	0	•	•	0	
Travel and Land Use Modeling	0	0	0	•	0	•	•			0
Competitive Program Project Management	•	•	0	•	•	•	•	•		0
Geographic Information Systems	0	0	0	0	0	0	0	0	0	0

Primary Association O Secondary Association

The FAST Act identifies the following eight factors to serve as the basis for all metropolitan and statewide planning processes and products:

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

Increase the safety of the transportation system for all motorized and nonmotorized users.

3. Increase the security of the transportation system for all motorized and nonmotorized users.

Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns. Increase accessibility and mobility of people and for freight.
 Protect and enhance the annihum and the service and enhance the annihum annih development patterns

Enhance the integration and connectivity of the transportation system, across and between modes for people and freight. ۲. ۲.

Promote efficient system management and operation.

8. Emphasize the preservation of the existing transportation system.

Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
 Enhance travel and tourism.

Figure 2:	CONNECTIONS 2040	CONNECTIONS 2040 LONG-RANGE PLAN KEY PRINCIPLES	PRINCIPLES	
	Create Livable	Manage Growth &	Build the	Establish a Modern Multi-Modal
PROGRAM AREAS	Communities	Protect the Environment	Economy	Transportation System
Technical Assistance to Member Governments	•	•	•	•
RideECO Marketing			0	•
Regional Forum	•	•	•	•
Work Program Administration	•	•	•	•
Public Participation, Information and Visualization Techniques	•	•	•	•
Title VI and Environmental Justice	•	•	•	•
Regional Congestion Management Process	0	0	0	•
Transportation Operations	0		0	•
Corridor Planning	•	0	0	•
Regional Transit Planning Program	0		0	•
Bicycle and Pedestrian Planning Program	0		0	•
Delaware Valley Freight Planning	0	0	0	•
Transportation Safety and Security	0			•
Travel Monitoring				•
Smart Growth	•	•	0	0
Economic Analysis and Coordination	0	0	•	0
Strategies for Older Communities	•	0	0	0
Energy and Climate Change Initiatives	0	•	•	0
Long-Range Plan	•	•	•	•
Air Quality Planning	0	•		•
Environmental Planning	0	•		0
Data Exchange and Analysis	•	•	•	•
Transportation Improvement Program	0	0	0	•
Performance-Based Planning and Asset Management	0	0	0	•
Travel and Land Use Modeling		0		•
Competitive Program Project Management	0	0	0	•
Geographic Information Systems	•	•	•	•

Figure 2: CONNECTIONS 2040 LONG-RANGE PLAN KEY PRINCIPLES