

2011 Regional Progress Report



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RESOLUTION

BY THE WILMINGTON AREA PLANNING COUNCIL (WILMAPCO) APPROVING THE 2011 REGIONAL PROGRESS REPORT

WHEREAS, the Wilmington Area Planning Council (WILMAPCO) has been designated the Metropolitan Planning Organization for Cecil County, Maryland and New Castle County, Delaware by the Governors of Maryland and Delaware, respectively; and

WHEREAS, WILMAPCO adopted the 2040 Regional Transportation Plan (RTP) on January 13, 2011; and

WHEREAS, the RTP identified objectives and actions to achieve the region's longrange transportation goals; and

WHEREAS, the RTP requires that a progress report be conducted to monitor the progress of achieving our goals; and

WHEREAS, the 2011 Regional Progress Report has been developed using the latest available data; and

WHEREAS, the 2011 Regional Progress Report has undergone appropriate technical review;

NOW, THEREFORE, BE IT RESOLVED that the Wilmington Area Planning Council does hereby approve the 2011 Regional Progress Report.

nulan 12,2012 Date:

Joseph L. Fisona, Acting Chairperson

Wilmington Area Planning Council



Partners with you in transportation planning

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Who is WILMAPCO?

The Wilmington Area Planning Council (WILMAPCO) is the Metropolitan Planning Organization (MPO) for Cecil County, Maryland and New Castle County, Delaware. We are charged with planning and coordinating transportation investments for the Wilmington region.



The Wilmington region is home to nearly 640,000 residents, most of whom (84%) live in New Castle County. Wilmington, a financial hub supporting a population of more than 70,000, serves as the principal city. Urbanized development stretches outside of Wilmington along the I-95 corridor, from the Town of Elkton to the Pennsylvania border. Natural and rural landscapes, sprawling suburbs, and small towns blanket the rest of the region.

WILMAPCO's mission is to create the best transportation Plan for the region, one that meets all the requirements mandated by the Federal Clean Air Act and its Amendments (CAAA) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

- If you don't measure results, you can't tell success from failure
- If you can't see success, you can't reward it
- If you can't see failure, you can't correct it (From Reinventing Government, Osbourne & Gaebler; 1992)

In 1996, WILMAPCO adopted a Regional Transportation Plan (RTP) that established goals for our region's transportation future and strategies to see these goals realized. The RTP was updated in 2000, 2003, 2007 and most recently in 2010. While WILMAPCO recognizes that our long-range goals will take time to achieve, we hope to make progress in their attainment each year.

The Regional Progress Report has been designed to track a group of criteria that pertain to each of the RTP's goals. It measures these criteria against established quantitative goals or national averages, where applicable. If performance is lagging in a certain objective, corrective action should occur with the next RTP update. New or revised actions may be necessary to provide support to a struggling objective.

The 2011 Regional Progress Report brings together data and information from several agencies across our region that are:

- Reliable, relevant and regional in scope
- Easy to understand
- Available from public sources of data
- Available over a period of time
- Tied to RTP goals/objectives

Goal - Improve Quality of Life

Objectives

- 1. Protect the Public Health, Safety, and Welfare
- 2. Preserve our Natural, Historic, and Cultural Resources
- 3. Support Existing Municipalities and Communities
- 4. Provide Transportation Opportunity and Choice

Goal – Efficiently Transport People

Objectives

- 1. Improve Transportation System Performance
- 2. Promote Accessibility, Mobility, and Transportation Alternatives

Goal – Support Economic Growth, Activity and Goods Movement

Objectives

- 1. Ensure a Predictable and Adequate Public Investment Program
- 2. Plan and Invest to Promote the Attractiveness of the Region

How the Report is Formatted

Our three goals, each identified by a color, have a total of eight objectives we hope to achieve. These goals and objectives are listed in a box at the bottom of the previous page. Each of the eight objectives have been assigned indicators that will show us the direction in which we are moving.

At the beginning of each section the overlapping balloons show when our indicators overlap multiple goals.

For each objective in this report we list:

- Actions to accomplish this objective
- Regional indicators that track our progress
- Knowledge gaps that need to be closed

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The report is made up of indicators, detailing relevant trends we have identified. Using historic patterns (some data going back to 1996). Some indicators have performance targets. If a performance target is not available, we often use a national average as a criteria's goal. With the addition of performance targets, a direct correlation between the current trends and desired future goals can be established. They allow us to gauge our progress towards meeting the goals set by the 2040 RTP. This year, each indicator is assigned one of three traffic light colors. Reds are given to those indicators which are off track of their objectives. Yellows are given for indicators partially off-track; and greens for indicators which show positive progress towards meeting their objectives.

Finally, the report lists significant trends uncovered and the key challenges we face during the coming years. The appendix contains a section that serves as an RTP project "status check." Given the volume of projects, funding constraints, and changing political tides it is not uncommon for projects to be delayed or undergo scope modifications.



Tools of the Trade

Four core documents guide us in the coordination of local and regional transportation plans: the Regional Transportation Plan (RTP), the Transportation Improvement Program (TIP), the Congestion Management Process (CMP) and the Unified Planning Work Program (UPWP). The RTP is a 20-year transportation plan for our region. The TIP details funding for the projects to be undertaken during the next four years to implement the RTP. The CMP works specifically to mitigate congestion and enhance mobility. The UPWP is a one-year document outlining planning activities for WILMAPCO staff and member agencies in the upcoming year. In addition, one of our main tenets is to involve the public in transportation planning. Comment sheets are provided with most of our programs and we conduct public opinion surveys. Results from these efforts steer our planning documents.

Regional Transportation Plan (RTP)

The current RTP provides a transportation planning guide through the year 2040. An update to our 2030 RTP, it consists of goals and objectives that are designed to address our region's challenges. A list of actions are produced for each goal to guide our staff and member agencies in the coming years. The RTP first examines the forecasted trends such as population, employment, housing, and trip making. We then identify the transportation challenges that these trends predict, and propose transportation investments that will mitigate these challenges. Its purpose is to steer our region into a transportation future that will provide the quality of life our residents desire. The long-range transportation projects must support the goals of the Plan, but it also lists all of the anticipated short- and long-term transportation projects. In this respect, the long-range transportation plan is both a policy document and an action document. The goals of the long-range plan will be accomplished through the efforts of the member Departments of Transportation, Transit Authorities, States, Counties and municipalities. In addition, the RTP must demonstrate Air Quality conformity goals set by the Environmental Protection Agency (EPA) and demonstrate financial reasonableness.



Transportation Improvement Program (TIP)

We are responsible for developing a TIP in cooperation with the Maryland Department of Transportation (MDOT), the Delaware Department of Transportation (DelDOT) and affected transit operators. Under the planning requirements of the Safe, Accountable, Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), a collaborative process has been developed wherein state, county and local governments and transportation providers are partners in the planning and programming process and the public has a voice. The program should be updated every four years and shall be approved by the MPO and the Governors of each state. We typically adopt a revised TIP annually, and may periodically amend the TIP. The fiscal year 2012—2015 TIP contains transportation investments totaling more than \$2.2 billion through 2015. The majority of spending is slated for roadways and system expansion.

Congestion Management Process (CMP)

A CMP is required for each urbanized area with a population greater than 200,000. The Federal Highway Administration defines a CMP as "a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing mobility." Regulations require the analysis to include ongoing methods to monitor congestion, both traditional and nontraditional congestion strategies, implementation plans, and performance measures. Our Congestion Management System (CMS) examines: level of service (roadway segment volume to capacity ratio); intersection level of service; actual travel speeds compared to posted speed limits; transit volume to capacity ratio. Congested corridors are identified, and tools are defined to address congestion through a top-down approach that places the greatest emphasis on eliminating trips and reducing peak-hour Vehicle Miles Traveled (VMT). Other strategies in order of emphasis are shifting auto trips to other modes, shifting drive alone trips to carpooling and vanpooling, improving roadway operations, and adding capacity.

Unified Planning Work Program (UPWP)

Our UPWP outlines all metropolitan transportation planning activities anticipated within the next fiscal year. It indicates which agency will perform the work, the schedule for its completion and the products that will be produced. Included in the document are the sources for funding each work task and the allocation of funds to perform them.

Public Participation Plan (PPP)

Public participation is integral to our planning process. We must elicit from both stakeholders and the general public their opinion on the goals and objectives of the Regional Transportation Plan, their perspective on the transportation needs of various groups, and their view on investment strategies. The PPP outlines our strategies for involving the public in transportation planning activities and decisions. It also educates the public about the planning process and encourages the public's guidance and review of the plans, programs, and documents developed by WILMAPCO.



Public Opinion Surveys

Each year we conduct a public opinion telephone survey. Six hundred randomly-selected Cecil County residents are polled on their transportation choices, awareness of WILMAPCO, and the best ways to involve them in projects and plans. WILMAPCO includes New Castle County in its survey every four years, concurrent with RTP updates, since several other transportation opinion surveys are conducted in that county on an annual or biannual basis.

II. Review of Past Recommendations and Future Challenges

During the past two years, WILMAPCO staff has been able to make some headway in addressing identified areas of concern. **Table 1** contains an update on the list of future challenges in the 2009 Regional Progress Report. The columns have been color-coded to indicate which items have been addressed (shown in **GREEN**) and which ones still need attention (shown in **RED**).

Challenges	Action
	We continue to advocate for the implementation of "transportation choices"
Creating alternatives to the automobile	strongly supporting better fixed-route transit and non-motorized systems in
	all plans.
	Our 2007 Freight and Goods Movement Report developed a methodology for
Meeting increased demand for goods movement	identifying freight bottlenecks regionally. These bottlenecks have since
с с с	become a factor in our project prioritization process.
	Our lastest Environmental Justice (EJ) Report was adopted in 2009. The
	report highlights undue transportation burdens carried by our region's low-
Ensuring transportation aquity	income and minority communities and offers solid recommendations to
	improve mobility, participation and quality of life. An updated report is
	planned for development in 2012, and fresh EJ analyses can be found in the
	present Progress Report, along with other studies.
	Federally-regulated mobile-source air emissions, such as ozone and fine
Improving air quality	particulate matter, continue to sink in the WILMAPCO region. Our
	continuing advocacy for less energy-intensive travel and responsible land
	use decisions also works towards reducing greenhouse gas emissions.
	We worked closely with the State of Delaware on its Energy Plan update in
	2009. On the transportation side, the plan seeks to reduce energy-use
Addressing implications of rising gas prices & alternative forms of energy	through checking vehicle miles traveled and the promotion of alternative
	venicle technology. We worked with both Maryland and Delaware on a Sea-
	level Rise Vulnerability Assessment in 2011.
Supporting Center and Core investment areas	we have made planning funding available for established communities, such
	Our 2000 Congestion Management Summary offers an analysis of
Addressing congestion	condestion in our region. It incorporates crashes (a key factor in pon-
	recurring congestion) into the identification of congested corridors
	We have researched a funding alternative known as a mileage-based user
	fee This idea is not vet widely accepted, but strides are being made with a
	statewide pilot program in Oregon. We will continue to monitor this
Financing the transportation system	alternative and others that could potentially replace or augment the current
	transportation financing structure. Additionally, we do have the ability to
	track the private funding match in TIP projects.
	Economic development is considered, directly or indirectly, in every plan we
	produce. The Elkton Transit-Oriented Development Plan, for example,
Maintaining economic prosperity	outlines economically-beneficial improvements in Cecil County's principal
	town. In the City of Newark, Delaware, we recieved a TIGER grant to plan
	for the redevelopment of the city's train station.
	We continue to promote a "maintenance first" policy, which generally
Preserving aging infrastructure	argues needed infrastructure repairs should be made prior to system
	expansion. Unfortunately, this practice is often ignored. Statewide
	preservation projects in the FY 2012 TIP saw a funding increase, however.
	Our 2008 Inter-Regional Report identified seven key regional corridors that
	are expected to have dramatic changes in future traffic demands. These
Addressing increased inter-regional strains	compose span multiple metropolitan areas and would benefit from multi-state
	pranning. We will continue to promote communication and coordination
	nlanned in 2012
	We released a Sea-level Rise Transportation Vulnerability Assessment in
	July 2011. Climate change and peak oil were identified and discussed as
Addressing climate change, sea-level rise and energy use	"new initatives" in the 2040 Regional Transportation Plan, an update to the
	2030 Plan. Public outreach materials concerning the connections between
	climate change, high energy use and transportation were developed.
	We have worked to incorporate healthy messages into our plans, especially
	in the Safe Routes to School programs we lead. WILMAPCO sits on the
	Healthy Kids Network, a grouping of agencies dedicated to improving well-
Addressing health concerns	being for children in northern Delaware. We have also partnered with the
	Clean Air Council to reduce diesel emissions from trucks in and around the
	Port of Wilmington. We have actively participated in Delaware's Healthy
	Eating Coalition, and play a leading role in Delaware's Air Quality
	Partnership.
Comply with new transportation bill	New federal transportation from Congress is long overdue. We worked to
	anticipate new requirements (and funding) within the 2040 Plan.

Table 1a: Activity Concerning the 2009 Regional Progress Report Recommendations

II. Review of Past Recommendations and Future Challenges

Table 1b [.]	Activity Concern	ing the 2009 R	egional Progress	Report Recommendations
	Activity Concern		egionali i logiess	Neport Necommenuations

Addressing Identified "Knowledge Gaps"	Action
Quantify the impact of auto-dependency and how health data (e.g., incidence of asthma or obesity) can be used as a measure for this objective	We investigated the availability of health data that could be used to link transportation investments to public health. The data necessary to analyze the spatial patterns of overweight and obese incidences does not exist at lower geographic levels. We will monitor patterns of active travel in the region.
Develop a better system to assess effectiveness of transportation security	WILMAPCO has provided data support to assist in the development of
and evacuation plans	evacuation planning.
Identify the emissions benefits of CMAQ projects	process, based on a massive federal database of emissions benefits from CMAQ projects. We hope to refine this in the future by modeling emissions reductions from individual projects.
Need a consistent, annually-updated GIS layer for preserved land in the	Environmentally-sensitive land area data were supplied by our natural
region	resource agencies, and are shown in this report.
Develop a performance measure for the percentage of population within walking distance to a greenway	This measure has been developed, and is featured in the present report.
Better define boundaries for non-incorporated communities.	Better boundaries have been developed, and are available from the US Census.
Need a performance measure for "context-sensitive solutions"	Staff determined this measure to be a duplication of efforts.
Updated "completed projects" GIS layers from DelDOT	DelDOT has discontinued the practice of developing this layer.
Create a point GIS layer of newsletter recipients to better measure EJ outreach.	No direct staff activity
Create a linear GIS layer of historic TIP projects to extend the EJ benchmark analysis	A new layer was created for the FY 2002 TIP this past year.
Quantify the impact no Sunday bus service has on our EJ communities	With the arrival of Sunday bus service, this analysis was not necessary.
How does ITS improve the overall performance of the existing highway system.	We have been working closely with the DOTs to improve our understanding of ITS functions, especially for use in our annual CMS Report.
Address inconsistent data on Park & Ride Usage	Annual Park & Ride inventories have been made more comprehensive.
Need an updated ITS GIS layer from DelDOT and MDOT	An updated ITS layer has been supplied by the DOTs.
Need updated E-Zpass, bridge and road data from MDOT	These data were received, and are featured in this report.
Need to develop a better source for travel characteristics data for Cecil County.	The American Community Survey now offers an annual update for Cecil County. WILMAPCO's public opinion transportation survey is also conducted annually in the county.
Better measure of transit accessibility. Current methods do not account for actual bus service schedules or a true ¼ mile access to transit stops	Staff are exploring reasonable options to work this into our technical analyses.
Work to secure reliable funding sources dedicated to transportation	Dependent on new federal and state authorization.
Reliability of future federal funding	Dependent on new federal authorization.
Establish better relationship between transportation and tourism; explore DNREC SCORP data	SCORP data have been explored this past year, and is featured in the new measure, "Access to Recreation Mode Split."
Establish performance measures from the 2007 Freight Study	Freight bottlenecks were identified in the report. A performance measure tied to the report has still yet to be developed for inclusion in the Progress Report, however.

Review of Challenges

The chart below contains a revised list of challenges for WILMAPCO. Through the UPWP, RTP and other member agency efforts, a concerted effort is needed to address these challenges. This list will serve as a guide for future staff efforts.

Challenges

- **Creating alternatives to the automobile:** Efforts must continue to promote projects which reduce auto dependency.
- **Meeting increased demand for goods movement:** With freight movement expected to increase between 50-70% during the next 20 years, capital improvements must be made to reduce congestion, increase mobility for freight and ensure the safety of other motorists.
- **Ensuring transportation equity:** Staff will continue in its efforts to identify and mitigate the transportation challenges our Environmental (low-income and minority) and Transportation (elderly, disabled, zero-car household) Justice communities encounter.
- **Supporting Center and Core TIAs:** Our municipalities and surrounding communities represent concentrations of infrastructure, and should represent concentrations of investment and redevelopment.
- Addressing congestion: Dispersed land use patterns, high rates of single occupancy trips, and our substantial rate of automobile ownership contribute to congestion on our region's highways.
- **Financing the transportation system:** Significant funding issues have arisen at the regional and national levels, which has delayed the completion of previously programmed projects.
- **Supporting sustainable economic growth:** Only transportation projects which advance the sustainable, livable and smart development of our region should move forward.
- **Preserving aging infrastructure:** Under our "maintenance first" policy, WILMAPCO believes that keeping pace with required maintenance enhances the quality and efficiency of our transportation system.
- Addressing increased inter-regional strains: Goods and people travel through our region to reach other destinations. Many of these companies and people do not contribute to the upkeep of our transportation infrastructure.
- Addressing climate change, sea-level rise and energy use: Automotive transportation releases a significant amount of greenhouse gas emissions into our atmosphere, speeding global warming. Reducing the amount our residents drive through the promotion of alternative forms of travel and sensible land use decisions will work towards a more sustainable future.
- Addressing health concerns: Levels of obesity, asthma and other health issues are exacerbated by our current transportation system. Staff will continue exploring ways to help mitigate these concerns.
- Comply with the new transportation bill: A new transportation bill has been expected from the U.S. Congress for some time. Meeting its likely more aggressive requirements will be a high priority for staff.

III. – Regional Progress Report

Goal – To Improve Quality of Life

Objective #1 Protect Our Public Heath, Safety & Welfare



- Ensure a safe transportation system for all users
- Assist Homeland Security agencies in developing and assessing plans
- Coordinate with DOTs to develop Safe Routes to School Programs
- Continue to fund traffic calming in key areas
- Promote healthy communities through transportation
- Meet Air Quality Conformity requirements



The protection of safety and health is paramount for WILMAPCO. By examining crash and air quality statistics, we can get a sense of how well we are addressing this objective.

Regional Indicators:

1. Automobile Crashes: Rate falling in Cecil, rising in New Castle	page 10
2. Personal Injury Crashes: On the decline	page 10
3. Pedestrian and Bicycle Crashes: Up in 2010	page 10
4. Air Quality Impacts: Meeting our budgets, for now	page 11
5. Ozone Exceedences: Declining ozone exceedences regionally	page 13
6. Fine Particulate Matter (PM2.5) Exceedences: Falling in New Castle Co	page 13
7. Public Opinion: Public perception of common causes of traffic crashes	page 14



Knowledge Gaps:

• Effectiveness of individual transportation projects that have received CMAQ funding at reducing mobile source emissions.

Objective – Protect Public Health, Safety and Welfare

Automobile Crashes

Improving safety has always been a top priority for WILMAPCO. Tracking crashes is a simple way to see how well we are doing. **Figure 1** illustrates that since 1996 the crash rate in Cecil County is well below the national average, while New Castle County edges over it. New Castle County has witnessed an increase in its crash rate since 2005, while Cecil County's rate has fallen.

Figure 1: Automobile Crashes per Million Miles Traveled



Personal Injury Crashes

While New Castle County tops

Cecil County in the overall crash rate, a crash in Cecil County is more likely to result in an injury. About 43% of all crashes in Cecil County involved an injury between 2000 and 2010 The same was true for only 26% of New Castle County crashes. The good news is that the percentage of crashes which resulted in personal injuries have declined during the decade. Of the years considered in **Figure 2**, 2010 had the lowest percentage of crashes resulting in personal injuries in both counties.

Pedestrian and Bicycle Crashes

Though 2010 boasted low percentages of personal injury crashes, the number of pedestrians struck that year was the highest since 1998. Bicycle crashes were also up in 2010, reaching their highest level since 2000. As shown in **Figure 3**, New Castle County suffers more pedestrian and bicycle crashes each year than Cecil County. A larger population, along with more urbanized development, account for much of this discrepancy.

Figure 2: Personal Injury Crashes





Figure 3: Pedestrian and Bicycle Crashes

Sources: MDSHA, DE State Police

Objective – Protect Public Health, Safety and Welfare

Air Quality Impacts

Like other regions across the United States, we must meet the air quality standards set by the Environmental Protection Agency (EPA). Our region is designated as a moderate non-attainment area for ozone. New Castle County is also in non-attainment for fine particulate matter (PM2.5)

To demonstrate that our plans meet the EPA's ozone regulations, we must remain below a determined budget for current and future emissions from vehicles for two pollutants: Nitrogen Oxides (NOx) and Volatile Organic Compounds (VOCs). Because budgets are not yet in place for PM2.5, we must show that programmed transportation projects do not increase PM2.5 levels from previous years. **Figures 4** and **5** show the current ozone conformity analysis for Cecil and New Castle Counties. While both counties fell under the emission budgets, emissions are projected to rise during the 2030s with VMT, as all known technological improvements are implemented. We must create a transportation and land use network conducive to reducing VMT, while supporting cleaner automotive technologies like electric infrastructure.



Figure 4: New Castle County's Mobile Source Ozone Emission Projections vs. Allowable Budgets

Figure 5: Cecil County's Mobile Source Ozone Emission Projections vs. Allowable Budgets



Objective – Protect Public Health, Safety and Welfare

Air Quality Impacts

The latest fine particulate matter (PM2.5) analysis for New Castle County is below. **Figures 6** and **7** show that, like ozone, mobile source PM2.5 levels are predicted to decrease in the near future, before trending upwards in the 2030s like ozone. Better, cleaner automotive technologies and engines largely account for these improvements. PM2.5 is created directly (through rogue dust) and indirectly (NOx). Both sources are measured below.



Figure 6: New Castle County's Direct PM2.5 Emission Projections



Figure 7: New Castle County's Indirect PM2.5 Emission Projections

Source: DelDOT

Ozone Exceedences

Figure 8 charts the daily exceedences of the 2008 Health-Based Ozone Standard (0.075 ppm). Ozone exceedences have fluctuated during the past several seasons, but are generally on the decline. The one exception to this is at the Fair Hill monitor, where exceedences have increased since 2004.



Figure 8: Eight-hour Ozone Exceedences of the 2008 Standard

Fine Particulate Matter (PM2.5) Exceedences

The annual standard for PM2.5 is 15 ug/m³ (micrograms per cubic meter of air,) testing against three-year annual averages. As the chart below shows, PM2.5 levels have fallen this decade. New Castle County met the three-year standard in the 2004-06 period, with exceedences from Wilmington dipping under the standard for the first time. The State of Delaware may request redesignation this coming year.



Figure 9: Performance Against the PM2.5 Standard

Public Opinion Survey Results

WILMAPCO's 2010 Public Opinion Survey

Six-hundred residents were asked about their perception of air quality. Most, 63%, reported that air quality was either good or fair, while 16% rated it poor.

Respondents were also asked what actions they would be willing to take to help improve air quality. Nearly 60% reported they would be willing to carpool, 51% would be willing to take transit, and 44% would be willing to walk or bike.



Behaviors to Improve Air Quality



Goal – To Improve Quality of Life

Objective #2 Preserve our Natural, Historic, and Cultural Resources

Actions

- Provide assistance in the development of Byway Corridor Management Plans and work with DOTs to implement Context Sensitive transportation improvements, as identified in Corridor Management Plans
- Limit projects within Rural
 Transportation Investment Areas to
 preservation and safety



It is critical to balance human growth with the maintenance and redevelopment of our region's natural character. From the weathered colonial-era buildings along the Delaware River to the lush expanses of greenery along the Chesapeake, these treasures should be preserved for future generations.

Regional Indicators:

1. Sensitive Natural Networks: Twenty projects fall in natural areas	page	16
2. Access to Recreation: Auto use dropping	page	17
3. Public Opinion: Placement of new development	page	17
4. East Coast Greenway: More than halfway complete in New Castle County	page	18
5. Pop. within Walking Distance to East Coast Greenway: about 40,000	page	18



Knowledge Gaps:

• Updated data on historic properties and parcels

Objective – Preserve our Natural, Historic and Cultural Resources

Sensitive Natural Networks

Since the 17th century, vast tracts of forests and land have been cleared for agriculture and human structures. Sprawl is the greatest threat to our remaining habitats. The state natural resource agencies have mapped these natural networks. The analysis below compares them to our projects.



Table 2: TIP Projects in Sensitive Natural Networks*

ID	Project	Sensitive Area	TIP Page	Category	Phase
1	Areawide Resurfacing Safety Improvements	Varies	3-5	Preservation	PE, ROW, C
2	BR CE-0007 and BR-0087 Superstructure Painting	Tier 5	3-7	Preservation	-
3	Areawide Bridge Replacement and Rehabilitation	Varies	3-2	Preservation	PE, ROW, C
4	Areawide Congestion Management	Varies	3-13	Management	PE, ROW, C
5	Areawide Urban Street Reconstruction	Varies	3-6	Preservation	PE, ROW, C
6	Areawide Environmental Projects	Varies	3-3	Preservation	PE,C
7	Areawide Resurfacing and Rehabilitation	Varies	3-4	Preservation	PE,ROW,C
8	US 301: Maryland Line to SR 1	Core	2-76	Expansion	PD, ROW
9	Cedar Lane, Roadway Improvements	Core	2-49	Management	PE, ROW, C
10	Bridge 444 on Old Corbitt Road, East of Odessa, Bridge Improvements	Core	2-15	Preservation	ROW, C
11	Lorewood Grove Rd: Hyatts Corner to Lorewood Grove, Roadway Improvements	Core	2-49	Management	PE, ROW, C
12	Bridge 366 on N399 Chesapeake City Road over Guthrie Run	NC Hub	2-12	Preservation	С
13	C & D Canal Promenade: Delaware City	Core	2-35	Management	PD, C
14	Interstate Maintenance	Corridor	2-29	Preservation	PD, PE, ROW, C
15	Road A/SR 7, Widening and reconfiguration of intersections	NC Hub	2-63	Expansion	PD
16	Third Rail Track Expansion, Newark to Wilmington	Core	2-68	Expansion	PE, C
17	Fairplay Train Station - Parking Expansion	Corridor	2-67	Expansion	PD
18	Bridge 159 on James Street over Christina River, Bridge Improvements	Corridor	2-8	Preservation	С
19	NCC Industrial Track Greenway, Phase III	Core	2-66	Expansion	PE
20	Tyler McConnell Bridge, SR 141, Montchannin Road to Alapocas Road	NC Hub	2-74	Expansion	PD, PE

* Notes: This analysis considers the 71 FY 2012 TIP projects mapped by WILMAPCO. Twenty (28%) fell within one of the identified sensitive areas. Areawide projects in Cecil County (numbers 1, 3-7) have no spatial boundary, so may impact one or more tiers. "Category" refers to the WILMAPCO project designation. "Phase" is the phase of which the project is funded in the TIP: PD=Preliminary Development; PE=Preliminary Engineering; ROW=Right-of-Way Acquisition; C=Construction. All funding is x 1,000.

Access to Recreation

The percentage of people using an automobile to reach recreational activities in New Castle County (and indeed across Delaware) has generally declined in the recent past, though it is still the most popular mode choice. In 2011, walking and/or jogging (40%) was a close second to automobile travel (47%) in Wilmington. Creating parks nearby residential uses—and ensuring solid pedestrian, bicycle and transit connections to them are built—will help continue this positive trend.

Table 3: Those Using an Auto to Access Recreation

Place	2002	2008	2011
Northern NCC	75%	72%	61%
Newark		71%	77%
Wilmington		66%	47%
Southern NCC	84%	85%	79%
Delaware (statewide)	77%	76%	69%

Public Opinion

Our region's residents are divided on the issue of desire for new development. Just over 50% support it, and just under 50% oppose it. They are not divided, however, in their preference for location of new development, nor the importance of the issue. More than 70% prefer new development to be placed in existing towns and designated growth areas, as opposed to placing it where developers choose. Of those surveyed, more than 90% felt that preserving farmland and open space was a critical or important issue, and 95% felt that managing growth and development was also very important. Most (86%) thought tax incentives or other subsidies should be used to help direct development away from farmland and open space.



Supporting farmland or open space preservation through tax incentives or subsidies to help direct development to other areas

Objective – Preserve our Natural, Historic and Cultural Resources

East Coast Greenway

The East Coast Greenway (ECGW), a planned 2,600 mile auto-free path linking cities from Maine to Florida, hopes to be the nation's first longdistance, city-to-city, multimodal transportation corridor. A portion of the proposed route falls within the WILMAPCO region. So far, about 32% of the 74.5 miles of the planned greenway in our region has been completed.

Of the portion that falls in New Castle County, 63% has been completed, with a further 5% funded. That is up from 52% completed in 2009, and 51% in 2007. Sixty-three percent of New Castle County's completed segments are officially designated and signed routes.

Only a shade over 1% of Cecil County's segments have been completed. Strategies to complete the East Coast Greenway in Cecil County must be developed. Nationally, more than a quarter of the path is in place.



Population within Walking Distance to East Coast Greenway

Table 4 below charts the population within walking distance to complete and incomplete stretches of the ECGW. Walking distance is considered 1/4 mile. Work since 2004 has brought the greenway within walking distance to an additional 6,000 residents regionally. And of the more than 39,000 residents within close proximity to the ECGW in New Castle County in 2011, 65% live near an officially-designated segment.

Some 28,000 residents are today within walking distance to an incomplete EGWG segment, and more than 40,000 residents are nearby an already completed segment. While good progress has been made, these figures illustrate the lasting impact finishing the greenway network would have.

Cecil Co. Segments	2004	2011
Complete	0	678
Designated	0%	0%
Incomplete	9,838	10,549
New Castle Co. Segments	2004	2011
Complete	34,195	39,499
Designated	0%	65%
Incomplete	23,777	17,215

Table 4: Population within Walking Distance to ECGW*

* 2005 population data were used to calculate figures for 2004

Figure 11: East Coast Greenway Status, 2011

Goal – To Improve Quality of Life

Objective #3 Support Existing Municipalities and Communities



Our region has several densely-settled municipalities and strong unincorporated communities. These areas serve as locations where residents live, shop, and gather socially. We refer to these locations as *Center* and *Core* Transportation Investment Areas (TIAs) where increased multimodal funding is encouraged to maintain and foster growth.

Regional Indicators:

1. Population Growth by TIA: Heavy growth outside Center/Core	.page 20
2. TIP Funding by TIA: Sharp growth in most areas	.page 20
3. Municipal Population Growth: On the decline, regionally	.page 21
4. Municipal Funding: Do not receive fair share	.page 21
5. Overview of Comprehensive Plans: A handful of new plans	.page 22
6. Public Opinion: Mixed use and multi-modal support	.page 29



Knowledge Gap:

Updated "completed projects" GIS layers from DelDOT

Objective – Support Existing Municipalities and Communities

Population Growth by TIA

Figure 12 estimates changes in population arowth in our five designated Transportation Investment Areas (TIAs). While about 77% of our population lives in our Center and Core TIAs, growth in these areas has slowed since 2000. Meanwhile, over 6,700 new residents have appeared in Community TIAs, about 6,600 in Developing TIAs, and 18,600 in our Rural TIAs. Center and Core TIAs are home to a dense network of existing transportation infrastructure. Sprawling growth outside these areas triggers the expansion of this network, an unnecessary economic and environmental burden. Instead, smart redevelopment within Center and Core TIAs should be favored.



TIP Funding by TIA

Figure 13 shows how TIP funding has been allocated to TIAs in a selection of TIPs since 2004. Some projects cut across more than one TIA; therefore, they were counted in all those impacted. Recent TIPs show greater funding for projects in our Core, but also increases in our Developing and Rural TIAs. Sharp rises in these three TIAs are mainly attributable to the planned US 301 expressway in southern New Castle County. Only projects appropriate to their TIA designation should receive funding.



Figure 13: TIP Funding by TIAs, FY 2004-2012

Municipal Population & Funding

Municipalities represent concentrations of infrastructure and investment that should be utilized to our advantage. They are hubs of economic growth and activity, boasting high population and employment densities, mixed land uses, and social diversity. Our municipalities have transit-supportive land use patterns, which promote walking, bicycling, and shorter vehicle trips.

Place	1980	1990	2000	2010	1980-2010 Changes	% Change 1980-2010
Cecil County	60,430	71,347	85,951	99,069	38,639	63.9%
Total Municipal Population	13,394	17,192	22,956	29,279	15,885	118.6%
Percent within County Living in Municipalities	22.2%	24.1%	26.7%	29.6%	7.4%	
New Castle County	398,115	441,946	500,265	527,774	129,659	32.6%
Total Municipal Population	116,055	117,107	123,531	139,882	23,827	20.5%
Percent within County Living in Municipalities	29.2%	26.5%	24.7%	27.3%	-1.9%	
Regional Totals	458,545	513,293	586,216	629,843	171,298	37.4%
Total Municipal Population	129,449	134,299	146,487	169,161	39,712	30.7%
Percent within County Living in Municipalities	28.2%	26.2%	25.0%	27.0%	-1.2%	

Table 5: Population Changes within Municipalities: 1980-2010

In recent years, incorporated areas in New Castle County have had difficulty attracting new residents. While the population within municipalities is on the rise, it has been outpaced by growth in unincorporated areas. Cecil County, on the other hand, has seen its municipal population more than double since 1980, a faster growth rate than unincorporated areas of the county.

Most municipalities in the region have transportation infrastructure dating back several decades. To maintain these facilities, municipalities need adequate and sustained funding. Funding devoted to projects within municipalities has trended upwards since 2000. However, considering that some 30% of residents live within municipalities, they consistently receive less than their fair share of planned project spending when major expressways are removed from the equation. Further, municipal street aid funding has remained flat for implementation of local projects.





 * Does not include funding for interstates and the US 301: MD State Line to SR 1 Project

Overview of Comprehensive Plans

Governmental coordination at all levels is key to developing a seamless and efficient transportation Plan. WILMAPCO actively works with various municipalities and Cecil and New Castle County governments to understand the transportation needs of residents. With assistance from WILMAPCO and other agencies, all our municipalities have completed comprehensive plans. These plans detail local land use and transportation challenges. They give us a starting point to begin incorporating local needs into the metropolitan planning process. **Table 6** shows the current status of all municipal and county comprehensive plans in our region.

New Castle County	Certified/	Update in
New Castle County	Adopted	Progress
County Comprehensive Plan	2007	Х
Arden Village*	2007	Х
Ardencroft Village*	2007	Х
Ardentown Village*	2007	Х
Bellefonte	2007	
Clayton	2008	
Delaware City	2008	
Elsmere	2010	
Middletown	2005	
Newark	2008	
New Castle	2009	
Newport	2008	
Odessa	2006	Х
Smyrna	2006	
Townsend	2010	
Wilmington	Various Years	
Cecil County		
County Comprehensive Plan	2010	
Cecilton	2010	
Charlestown	2008	
Chesapeake City	2009	
Elkton	2010	
North East	2004	Х
Perryville	2010	
Port Deposit	2008	
Rising Sun	2010	

Table 6: Status of Local Government Comprehensive Plans

 ${\tt Source:} {\tt University} \ {\tt of } \ {\tt Delaware, Cecil County} \ {\tt Office of Planning \& Zoning, New Castle}$

County Department of Land Use

*- Under County Jurisdiction

Tables 7a, 7b, 7c, 7d, 7e and 7f on the following pages provide a summary of all available comprehensive plans for Cecil and New Castle County municipalities. The summary includes:

- 1. Current & Future Population Estimates
- 2. Transportation Recommendations
 - Key Roadways & Corridors
 - Transit Needs
 - Bicycle/Pedestrian needs
- 3. Land Use/Zoning Recommendations
 - Proposed land use & transportation changes
 - Other general land use efforts

Plans
comprehensive
County C
of Cecil
Review o
Table 7a:

	hics		Transportation Recommendations			Land Use / Zonnig Recommendations	
	2000 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts
Ceciitan	474	541 (2010) 673 (2020) 800 (2030)	 Extend Center St. to Douglas Ln. to form connection to MD 213 Traffic calming devices on MD 213 at north and south entrances to town A that alzation of MD 213 occurs, consider a boulevard concept that is compatible with growth patterns 		 Proposed greenbelt system surrounding growth areas, anchored by Cecilton Park and Cecilton Elem. School Consider bike link from MD 282 to MD 213 va Cecilton Park Provide safe ped. links to and from Cecilton Elem. School Provide safe ped. links to and from Cecilton Elem. School Improve side walks Improve side walks 	 Consider strategies to provide transportation access to interior twon lots lacking access to MD 213 and MD 282 accossite parking opportunities away from main arterials 	 Promote the development of mixed use and planned neighborhoods Require new residential developments to provide bite and ped. access to existing adjacent neighborhoods/frown Center where possible
Charlestown	0 0 0		 Increase route choices by providing for additional access to Route 40 		 Improve pedestrian connectivity to activity centers (e.g., waterfront, town hall. Recreation areas, shopping) Recommended pedestrian link between the subdivisions Scott Gardens, Trinity Woods, and Cool Springs 	 Residential streets should be narrow, dis courage through traffic, and be well-landscaped Signage should be Signage should be inform ative without being intrusive Alleys should be considered for all residential notighborhoods Traffic claming techniques should be used in neighborhoods 	 All Annexations must be consistent with the Town's MGE Promote Mixed-Use Development by revising town's zoning ordinance
Ches apeake City	787	900 (2010) 1,080 (2020)	 Add southern route to Biddle St. Add roundabout at Lock and Hemphill Streets Add connection to Boat Yard Rd. Add connection to Boat Yard Rd. Extend Hemphill Street eastward to provide direct access to Rt. 213 Acces management along Rt. 213 Acces strangement along Rt. 213 Traffic study to identify improvements needed for Boat Yard Rd., Biddle St., & Lock St. 	 Add bus service to Elkton if commuter rail is re- introduced to Elkton 	 Develop town-wide trail network plan Require that roads in growth areas include blke and ped. facilities Include blke lanes along Hemphill Rd. & Bridgeview Dr. extension Sidewalk study Expand C&D Canal greenway 	 Include shared parking in new development areas 	 Encourage mixed use development of Vilage Center
Ekton	13,312	14,403 (2010) 18,277 (2020) 22,070 (2030)	 Construct Northern loop road around Elkton, from MD 781 to MD 279. through Elkton west to Marley Road and to US 40 Intersection upgrade at US 40 and MD 213 Extension of Chesapeake Boulevard MD 213 from US 40 to Frenchtown road A0 to Frenchtown road Highway reconstruction projects as outlined by MDOT Reconstruction to improve drainage on Delaware Avenue between Main St. and Whitehall Road 	 Support expansion of MARC, SEPTA and bus transit sendce 	 Include right-of way for bicycles in road widening plans Install sidewalks on MD 213 between US 40 and MD 279 and along MD 7 from US 40 to Main St. Bicycle improvement projects as outlined by MDOT Support development of East Coast Greenway and Mason Dixon Trail plans and create a trail network Ensure multiple safe crossings across US 40, MD 213, and MD 279 	 Protect residential areas from excessive through traffic a: Support future mixed use and transitionited development around the Elkton train station Encourage designs for residential neighborhoods that include common open spaces streetscapes, signage Enhancement of US 40 as the primary commercial corridor 	 Prevent isolated residential development Require develops to pay for alterations, improvements, and additions to transportation facilities that are needed to support their development
			 Beautification project for US 40 Adopt an access management porgram to limit the number of new entry points along US 40 Improve north-south connections between US 40 and 1-95 Improve east-west connections on MD 279, 281 and US 40 			 Fromote Ozone Action Days and ridesharing by establishing and expanding park and ride lots Require a traffic impact analysis for all major proposed projects Ensue that residential areas are compact, attractive and well-designed with an arrangement that support pedestrian and bicycle activity 	0

	Dem	nographics		Transportation Recommendat	ions	Land Use / Zonin	ig Recommendations
	2000 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts
North East	2,733	3,187 (2010) 3,306 (2020)	 Reconstruct MD 272 bridge over Amtrak line MD 7 from east Charles town to MD 272 MD 272 from the north end of the couplet in the North East to Lums Rd. U S 40 from MD 272 to the DE line 	 Re-establish rail service to the town 	 Create a more pedestrian/ bike friendly CBD Extend sidewalks along Cecil Ave to connect with proposed Greenway Extend other existing sidewalks, bike paths, etc. to connect with the County's proposed Greenway on the east side of town 	 Provide adequate parking, especially in the CBD Streets cape improvements on Main St. 	 Promote the development of mixed use "smart neighborhoods"
Perryvalle	3,672 8,672	4,691 (2010) 5,783 (2020) 6,336(2025)	 Create an improved access road that bears off to the left from IKEA Way and continues across MIII Creek to the Perryville Community Park Create a Riverfront loop system begining on Broad St. at MD 222 Resurface Broad St. Construct New River Rd. Rever Rd. Reserve a right-of-way. redirect MD 222. US40 to MD 222/US 40 Intersection Nuclen and extend Front St. to Susquentian Ave. Connect the west ends of Franklin and Charles Streets 	 Redesign MARC station with additional parking and bike paths Extended MARC service times and rout MARC service times and routes and consider links with SEPTA Pier/Boatramp/water taxi service 	 Create pedestrian and bicycle travel over the Susquehanma river Build boardwalk along shore at Rodgers Takem Adopt greenway plans, specifically the Lower Susquehanma Heritage Greenway Adopt greenway kalong MD 7 Create a bik loop to connect major community facilities Create a bedestrian and bike path that follows most of the proposed loop roadd 7. Undertake a sidewalk study to find which areas need repair or replacement 	 Amend zoning ordinance to require space for bicycle parking in non-residential developments All new streets should have required tree planting Consolidate individual highway accessientry points 	 Avoid leap frog development Encourage waterfront development
Port Deposit	676	834 (2010) 896 (2020)	 3000 slot machine casino on the west side of MD 275 will generate large amounts of traffic in the area 	1. Water taxi at Marina Park	 Bike route from I-95 underpass, Frenchtown Road to MD 222 Bike route along MD 222 to Main Street Port Deposit Bike route alternative from MD 222 connect with old access road to Tomes School for Boys Amend Park pedestrian route 5. Amend Port Deposit guidelines for sidewalks to incorporate design guidelines for sidewalks 	 Enhance town's parking capacity in order to revitalize Old Town Port Deposit Diathoned segments of the Phomed segments of the Lower Susquehanna Heritage Greenway Trail should be incorporated into development plans 	
Rsing Sun	1,702	1,913 (2010) 2,106 (2020) 2,252 (2030)	 Control truck traffic on MD 274, possibly by diverting traffic from MD 274 to US 1 on an alternative route Secure a "roundabout" intersection at M and a number of the section at M and westbound traffic on MD 273 Investigate is uses with the intersection at MD 273 and 274 	 Cooperate with the state to plan and provide possible "park and ride" facilities 	 Amend zoning to require bike parking in non- residential developments Plan for bikeways along town streets Adopt proposed Greenways and Pedestrian trails Develop abandoned railroad right of way as ped/bicycle path Eavis pecial attention to creating pedestrian friendly streets and streetscapes 	 Teautification scheme "for the bwn, including new street signage, furniture, ped crossings and landscaping Protect residential areas from through traffic Protect residential areas areas on the periphery of town systems management program Create an access Management program 	1. Avoid strip growth

	Demo	graphics	Tran	sportation Recommendations		Land Use / Zonin	g Recommendations
	2000 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts
Bellefonte	1,249	1,361 (2010) 1,452 (2020) 1,507 (2030)	 Implement traffic calming techniques Improve parking and traffic enforcement Add a traffic light and signage at the intersection of Philadelphia Pike and Beeson Rd. Regularly inspect streets and identify improvement projects Explore streets cap improvements along the central business district (Brandywine Blvd.) 	 Improve non-motorized modes and safety by adding sidewalks and crosswalk signs Promote public transit, carpools, and explore the use of a local shuttle service 	 Explore the installation of bicycle paths and greenway paths 	 Maintain and encourage mixed use in appropriate zones and protect existing housing choices Monitor the need to expand the central business district and access impact before expansion 	 Explore annexation of four properties to smooth the Town's boundary Dipdate and adopt a new zoning ordinance and ensure it is strictly enforced archance and ensure it is strictly enforced a Reviablize the town park, develop a recreational program, and explore purchasing vacant lots to establish pocket parks Encourage greening of the town, increase recycling participation, and protect natural resources through environmental monitoring
Delaware City	1,453	2,053 (2010) 2,372 (2020) 2,616 (2030)	 Implement traffic-calming, pedestrian and bicycle elements to SR 9 Improvements to Washington St. based on comprehensive corridor Proposal Seek state improvements to SR 9 and SR 72 for evacuation purposes 	1. Coordinate with DART to extend Route 25 and 72 transit service into Delaware City	1. Implement series of proposals to increase bicycle and pedestrain facilities Adopt regulations requiring developers to construct sidewalks 3. Encorrage bike/ped connections to adjacent developments	 Strengthen access to C&D Canal recreation area with greenway connection Maintain citys compact size with a surrounding greenbelt buffer 	 Balance mix of retail uses so residents and buursts are served Preserve citys his bric nature while allowing private or public-private uses Pursue annexation of Governor Bacon/Fort DuPonts tite. Minimize impact of suburban development
Clayton	1,273	2,456 (2008)	 Consider re-opening the RR crossing at Old Duck Creek Rd and Duck Creek Pkwy Z Improvements at the intersection of the railroad and Main St. Evaluate on and off-street parking areas for efficiency 	 Investigate possibility of rehabilitating and operating one of the ratiooad stations Provide additional bus service 	 Find opportunities to use unused Main St. North and Clayone Leston relations right-of- wayfor hiking/biking traits Development of two bike routes to connect with the Smyma ratils. Installation of sidewalks in the area east of S. Bassett St. Conduct a sidewalk inventory and canking system for ped area east of S. Bassett St. Continue the bicycle route from industrial Way to Main St. 	 Strengthen the town center as a focal point (including, improved ped and bicycle safety, parking areas, and traffic circulation); Seek technical assistance through DEDO's DE Main st program Create street patterns that minimize speeding Improve street furniture and signage 	1. Many annexation plans will require vehicular, bike and walking connectivity with the rest of town
Elsmere	5,800	5,687 (2010) 5,569 (2020) 5,441 (2030)	 Address safely and noise issues associated with North Dupont Road 2. Work to reduce speed on Kirkwood Hwy by decreasing posted speed limits 3. Rearrange traffic patterns on Kirkwood Hwy to accommodate new Nain St. 	1. Upgrade bus stops on Kirkwood Hwy CSX CSX CSX	 Revise code to require sidewalks in all new residential and non-residential development 2. Implement a sidewalk- 3. Review right-of-way maintenance programs 4. Update sidewalks to ADA standards and add striped cross walks at necess ary intersections 	 Implement a Mein Street program Redesign downtown, better accessibility (for tourists and residents) 3. Create connectivity between parks and open space Build relationship with WILMAPCO and become part of their Transportation Improvement Program Devolop greenway trail along the existing rail line to connect Maple Ave. Park and Fairgrounds Park 	 Encourage affordable housing Create re-greening of Elsmere program Prevent indiscriminate mixture of land uses A. Review zoning and subdivision codes (complete) Monitor for brownfield redevelopment opportunities
Middletown	6,161	23.000- 33.000 (2020)	 Improvements to Choptank Rd. Including three roundabouts for expected increase in raffic volumes Construct new connector road from Construct New Construct New Construct New Rd. Newels Rd. Reconstruct portions of US 301, Bunker Hill Rd. Level's Rd. Reconstruct portions of US 301, Bunker Hill Rd. Level's Rd. Runch Rd., and Wiggins Mill Rd. Project Development for SR 299 from Silver Lake Rd. to SR 1 Improvements along the US 301 / SR as suggested in the WILMAPC 2004 CMS Study 	 Explore a rail route from Wilmington and Newark to Middlefown (Study Complete) Provide passenger rail service south to Dover as development along SR 1 continues 	 Develop a Multi-Modal plan that identifies ped/blike routes Brick sidewalks downtown should be reparied 	 Complete Main Street Revitalization including new commercial development Maintain sufficient land appropriate for industrial zoning and future employment uses 	 Preserve areas in the identified greenbelt in their rural condition Anoted a Transfer of Development Rights Ordinance Review projects proposed in Middletown that are reviewed through the Preliminary Land Use Service (PLUS) process Annexation of areas within and around Middletown

	Demo	graphics	ч ц	ansportation Recommendations		Land Use / Zoning	Recommendations
	2000 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts
New Castle	4,862	6,158 (2005) 6,894 (2030)	 Install signage on SR. 9 to direct through traffic Prohibit trucks from using local City streets Redesign SR. 9 gateway intersections to direct traffic away from residential areas Construct SR 9 bypass of the downtown (south of Dobbinsville and Washington Park) Implement a way-finding signage system Implement a way-finding signage system Instific calming on Washington St. (7th St. 10 SR 273); Ferry Cutoff (Del. St. to 6th St.) 6th St. (South St. to Chestnut St.); 7th St. (through Dobbinsville) 		 Improvements along SR 9 from 6th St to the north 5th St to the north 2. Create bike path along former rail bed from SR 273 to 7th St (Complete) Pedestrian crossing on 7th St. through Dobbinsville Add bike lanes throughout City 5. Redesting portions of SR 9 and Ferry Cutoff as a pedoriented commercial district 	 Construct off street paths and sidewalks, connecting residential neighborhoods with other uses Incorporate these connections into East Coast Greenway Improve visitor tots at Battery Park Enhance downtown residential and business parking 	 Encourage mixed use land use Develop unde veloped parcels, brownfields, and re-development areas harmoniously with nearby lands Encourage the development of adjacent lands in a harmonious manner with nearby uses
Newark	28,547	30,738 (2010) 31,971 (2030)	 Implement traffic calming Designate new DE 896 truck route Evaluate feasibility of ITS in US 40 and MD 213 Corridors 	 Expand scope of TMA; increase TDM Provide public vanpool service Establish transit carlation Implement express Elkton- Implement express Elkton- Newark. Wilmington bus service and additional and enhanced bus service to Elkton, and US 40 Corridor Enhance bus stop facilities, intermodal connections at rail station Potential extension of commuter rail Study alternatives for CSX line 	 Develop Greenway/ Bike route system Develop an integrated bike system and enhanced pedestrian amenities downtown 	 Promote transit-friendly development Develop new park and ride locations Preserve Pomeroy Branch for bike/ped 	 Increase preservation and acquisition of open space
Newport	1,122	34,837 (2005)* 32,830 (2020)*	 Manage traffic on SR 141/41 and SR 4: limit speed though town, buffer noise creation, reduce pollution Evaluate traffic calming methods, especially downtown, and development design standards (such as on street parking) to enhance non-motorized safety and mobility Regularly monitor vehicle traffic and air quality 	 Periodically survey Town citizens to see if their mass transit needs are fulfiled. Report findings to DART. 	 Improve ped. accessibility along SR 4, install signalized ped. crossings through Market St. section of SR 4 Develop pathfinder signage throughout Newport. 	 Consider bike/ped paths linking residential to commercial as well as to the boat ramp and nature center. Consider extending this path along the Christina River. Possibly develop centrally located metered parking: explore shared parking amongst businesses: rear parking lots; and other partnerships to alleviate the Town's parking issues 	 Remake the downtown using smart growth (mixed use) design principles; market the town's accessibility to major roadways The short-term annexation of lands off the Bestfield Rd, Clover Cir, Cedar St, the north, east, west, and southeast

	Demo	graphics	T	ransportation Recommendations		Land Use / Zoning	Recommendations
	2000 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	I Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts
Ottessa	286	310 (2010) 329 (2020) 343 (2030)	 Implement the Town's 2004 Transportation Plan Improve SR 299 and U.S. 13 through Town 		 Improved access across US 13 to reach Memorial Park Reduce impact of the car Add additional pathways through the Town, especially to Memorial Park Improve conditions of brick sidewalks 	 Ensure that developments in the proposed annexed areas coordinate with transportation network of existing Town Review and update Land Use Codes to ensure consistency with town's transportation network Consider additional parking for Memorial Park 	 Promote development of forested and open-space areas Preserve historic character of the Town Designate "downtown commercial uses" Possible annexation of properties to west and north
Smyrna	5,679	8, 813 (2010) 9, 207 (2015) 9, 579 (2020)	 Upgrade Carter Rd. from Sunnyside Rd. to Route 300 and traffic improvements to Route 300/ Glenwood Ave. Connector and Green Meadows/ Locust Street Connector Possible widening and improvements to Sunnyside Rd. Fossible widening and improvements and reconfigure Main St/Commerce St. Intersection Route 13 improvements consistent with a Commercial Corridor Concept Plan Condection Study to address traffic congestion, including a new connector/bypass west of the railroad 	 Conduct a transit study that identifies potential services Relocate DART bus stop from Route 13 to a site within the community closer to walkride and parkride options Identify and develop potential locations for a Park and Ride Plan 	 Improvements to Duck Creek Parkway and North Main Street Extended to accommodate all user types Establish a Bike and Pedestrian Plan 	1. Develop new zoning classifications to enhance the town's appearance and facilitate mobility	 Conduct Southern Development Area Study Encourage in-fill of vacant land parcels and encourage cluster of planned residential developments Encourage mixed downtown use and commercial corridors Annexation of the town's boundary within the recommended growth areas
Townsend	346	1,377 (2025)	 Consider right-of-way within annexed parcels in NE and SE to allow for future connector roads to SR 71, reserve appropriate corridor and assure no homes front the street Emergency access to SR 1 Extend: Ginn St, South St, and Walnut St, into the Dickinson Farm parcel, Jamie Lane to Wiggins Mill Rd., Niles St. into Townsend Station. Wilson or Gray St from Chesthut St. into prospective municipal parcel Gateway study of Main St. east of town to SR 71 	 Initiate town-owned shuttle/van to assist large non-driving population Possibly improving paratransit access 	 Complete sidewalk system Establish greenway/ bikeway between Noxontown Pond and Wiggins Mill Pond 	 Locate townhouses and duplexes near historic core to promote pedestrian travel 2. Maintain pedestrian orientation throughout town 3. Revise block lengths and update intersection requirements to discourage speeders 	 Consider creation of adult living communities Consider allowing cluster development to preserve open space

	Den	nographics	Transportation Re	ecommendations		Land Use / Zoning	Recommendations
	2000 Pop.	Pop. Projections	Key Roadways to be Improved/Studied	Transit Needs	Bike/Ped Needs	Land Use & Transportation	Other Land Use Efforts
Vilmington	72,664	71,727 (2010) 70,445 (2020) 69,097 (2030)	 Link 23rd and 25th St. as part of any future development of the B & O tract Apply ITS to Delaware Ave., West 4th St., West 2nd St., Washington St. and MLK through West Center City Change direction of 6th St. to westbound between King and Adams or Jackson St. Change direction of 6th St. to eastbound between King and Morne St. Change direction of 5th St. to eastbound between King and Morne St. Change direction of 5th St. to eastbound between King and Morne St. Change direction of 5th St. to eastbound between King and Morne St. Change direction of Windsor St. to southbound between King and Morne St. Upgrade (curbs, traffic control) "A" St. between Heald and Market St. Upgrade (curbs, traffic control) "A" St. between Heald and Market St. Limprove signatize for westbound traffic on 4th St. at Union St. Change direction of 12th St. and Northeast Blvd. to include a southbound left-turning lane and signalization Create a formal entrance to Todds Lane Business Park Ruptove intersection of 12th St. and Northeast Blvd. to include a southbound left-turning lane and signalization Restrict traffic on the 1500 block of Heald St. Rowe forward with the 12th St./H495 Connector Cose West 13th St. between Market and Bassett St. to vehicular traffic Change Market St. from one way to two way between 12th St. Head St. Change Market St. Bridge More forward with the 12th St./Hand 13th St. Change Market St. from one way to two way between 12th St. and find st. 	 Realign all bus stops located along regular routes in West Center City, the East Side, and the Northwest Implement Sunday bus service Establish an unlimited ride mobility within the CBD during the workday A DART should operate smaller buses in Wilmington to complement its tighter geometry 	 Bevelop a City-wide bike route plan Coordinate with the East Coast Greenway Plan Conduct a traffic engineering analysis of the Lea BNd., Tatnall St., Shipley St., and West Park Dr. intersections Almore access to the Train Slation Enhance streetscape of Northerm Walnut St. and East 4th Street in the East Side 	 Enhance West 4th St.'s streetscape through West Center City Improve East 11th St.'s streetscape and pedestrian access Beautify Walnut St. between Front St. and East 16th St. Reconsider impacts of the Wilmington Transportation Center Improvements on East Stde neighborhoods 	1. Scores of re-zoning recommendations to better complement surrounding uses and the City's vision
			-	_			

Objective – Support Existing Municipalities and Communities

Objective – Support Existing Municipalities and Communities

Public Opinion

In our 2010 Public Opinion Survey, respondents were asked if they supported mixing appropriate businesses with new residential development. They were also asked if they supported revising zoning codes to better support transit, bicycling, and walking. In both cases, the answer was overwhelmingly yes.



Mixing appropriate businesses with new residential development should be encouraged.







Goal – To Improve Quality of Life

Objective #4 Provide and Promote Transportation Opportunity & Choice



By ensuring fair and equitable access to a range of transportation options for all residents of our region, we can achieve the Environmental Justice (EJ) standards set by the Federal Highway Administration. Although this objective contains several strategies, this section will deal exclusively with EJ issues. Measures that deal with pedestrian planning and transportation/land use planning are addressed in other sections of this document.

Regional Indicators:

1. TIP Equity Benchmark: Capital funding in EJ areas continues to slide	. page 31
2. Crashes in EJ Areas: More than expected	. page 31
3. Public Participation and EJ Communities: On the rise since '07	page 32
4. Transportation Affordability: Gasoline expenditures increase since '02	page 32



Knowledge Gaps:

- Create a point GIS layer of newsletter recipients to better measure EJ outreach
- Create a liner GIS layer of historic TIP projects to extend EJ benchmark analysis

Efficiently Transport

People

Objective – Provide and Promote Transportation Opportunity & Choice

TIP Equity Benchmark

Transportation spending should be socially equitable. As demonstrated by our Environmental Justice analyses, however, lowincome and minority communities do not benefit as much from transportation projects as they should. Shown in **Figure 15**, the percentage of project funding spent within EJ areas (concentrations of low-income and minority neighborhood(s)) has fallen steadily since 2004.

We hope to see about 17% of funding (the equity benchmark) identified for EJ-related projects year-to-year. This figure represents the percentage of our region's population within EJ areas.

Replacing a politically-driven project selection scheme with a transparent prioritization process (like that developed and used by WILMAPCO) will work to correct this imbalance.



Figure 15: TIP Funding* Equity Benchmark

* TIP funding here considers only projects able to be mapped. Only "communitybeneficial" projects that fell within EJ areas are tallied. Projects along interstates, rail projects, and Wilmington Riverfront projects are excluded.

Crashes in EJ Areas

As **Figure 16** shows, neighborhoods home to significant concentrations of EJ groups consistently account for a disproportionate share of all crashes. While about 4.46% (used to calculate the benchmark on the graph) of New Castle County's residents live in Significant EJ areas, these areas accounted for about 7% of all county crashes between 2005 and 2010. Coupled with the inequitable capital spending trends shown above, this underlines the need to invest in roadway and pedestrian safety improvement projects within our low-income and minority neighborhoods.



Figure 16: Crashes in Significant EJ Areas, New Castle County

Public Participation and EJ Communities

Though public participation from low-income and minorities—once excluded from the planning process—is still lacking, we have made progress reaching out to these communities. One way to measure public participation is through readership of our quarterly newsletter, the *Transporter*. Since 2007, the *Transporter* has enjoyed an increase in total subscriptions. Among readers who were not affiliated with a particular agency and had a regular street address, readership has increased by 72%.

Table 8 below explores these subscription figures in four zip codes with many EJ areas. A product of targeted public outreach, subscriptions increased 118% in these zip codes between 2007 and 2010. While encouraging we must endeavor to better involve EJ groups in the planning process.

ZIP	2007	2009	2010	% Change 2007-2010
19703	7	13	13	86%
19801	29	51	66	128%
19802	39	40	72	85%
19805	29	41	76	162%
Totals	104	145	227	118%

Table 8: Non-agency Transporter Readership in Selected ZIP Codes

Transportation Affordability

Providing affordable transportation options is essential. A general way to measure transportation affordability includes the percentage the average person's annual expenditures are spent on transportation. **Figure 17** depicts trends in transportation and gasoline expenditures in the Philadelphia metropolitan area and the U.S. The graph shows that while expenditures on transportation (vehicles purchased, vehicle expense, gasoline, public transportation etc.) declined during the decade, the percentage of expenditures spent exclusively on gasoline rose. Philadelphia MSA residents also spend less on transportation than the average American.





Goal – Efficiently Transport People Objective #1 Improve Transportation System Performance

Actions

- Expand Regional Transit and Ridesharing
 Information
- Expand use of smart cards
- Fund projects that make better use of Intelligent Transportation Systems (ITS)
- Fund a TIP that makes improving the condition of the existing network the top priority
- Design transportation facilities to reduce future maintenance costs
- Improve transit efficiency and desirability
- Fund enhancements to Park and Ride facilties
- Expand Transportation Systems with Center and Community TIAs where necessary



We cannot only "build" our way to a better transportation system. We should first maximize the efficiency of the current system. This can be accomplished by keeping our transportation network in good working order and incorporating new technologies such as Intelligent Transportation Systems (ITS). By doing so, we can meet the transportation needs of our growing population while being fiscally, socially and environmentally responsible.

Regional Indicators:

1. ITS Infrastructure: Many new traffic cameras	page 34
2. E-ZPass Usage: Increases since 2004	page 35
3. Bridge Conditions: Better than national average	page 35
4. Road Conditions: New Castle Co. below par	page 35
5. Park and Rides: Capacity increasing, usage dropping	page 36
6. Public Opinion: Transportation Investments	page 37
7. Transit Reliability: Paratransit less reliable in 2011	page 38
8. Sea-level Rise Impacts to TIP Projects: Many projects in threatened area	page 38



- Knowledge Gaps:
- How does ITS improves the overall performance of the existing highway system?

ITS Infrastructure

Intelligent Transportation Systems (ITS) play a vital role in the solution for traffic congestion. Many of the ITS strategies deal with the *management* of traffic capacity, not ways to increase it. The value of ITS is that it can extend the time a roadway can function at an acceptable level of service given its current capacity.

ITS upgrades come in many shapes and sizes. Real-time traffic conditions allows travelers to make more informed decisions about their trip, and improves emergency response times. Not only does this help save lives, but on average, every minute saved in response time to an incident saves about five minutes in traffic delay.

Table 9 contains a summary of improvements made to the ITS infrastructure between 2003 and 2011 and**Figure 18** shows the location of these improvements. As shown on the map, much of this infrastructure isconcentrated in the Center/Core investment areas.

Table 9: ITS Infrastructure 2003-2011

	2003	2005	2011
New Castle County			
Variable Message Signs	8	9	8
Live Traffic Cameras	50	54	80
Real Time Traffic/Travel Speed Detectors	N/A	N/A	310
Cecil County			
Variable Message Signs	4	4	4
Live Traffic Cameras	N/A	N/A	4





E-ZPass Usage

E-ZPass technology helps alleviate congestion along our region's tolled highways. E-ZPass lanes have the ability to process between 1,200-1,800 cars per hour for each lane, depending on whether they are a traditional or high speed facility. As indicated in the graph, E-ZPass use has steadily increased since 2004. It is most popular amongst those traveling along Delaware's SR 1.



Figure 19: E-ZPass Usage*

Source: DelDOT, MDSHA * MTag usage is incorporated for Cecil County tolls prior to 2010.

Bridge & Road Conditions

Although it is the Department of Transportations' responsibility to add infrastructure, it also must maintain the existing network. **Figures 20** and **21** show the current quality of our roads and bridges. Though both counties boasted high percentages of bridges that meet federal standards, road conditions were more suspect. While Cecil County met their target for acceptable ride quality in 2006, New Castle County has yet to do so.

The recent spike in New Castle figures may be attributable to a consultant change at DelDOT.



Figure 20: Percentage of Structurally-Acceptable Bridges





* DelDOT is responsible for the maintenance of 89% of all roadways in Delaware, over four times higher than the national average for states

Park & Ride Facilities

One method used to help reduce congestion is the provision of Park & Ride facilities. These areas are regular meeting places where riders can carpool to work and other activities. During the past decade, considerable efforts have been made in Cecil and New Castle Counties to build and designate new facilities. The region added more than 1,500 new parking spaces since 1999, a 44% increase in capacity.

Usage of these sites, however, has not kept pace with this added capacity. As illustrated in **Figure 22**, usage for the region was 39% of total capacity in 2010, down from a high of 49% in 2008.

Figure 23 compares the location of our Park and Ride/Park and Pool facilities with our TIAs. The majority can be found in Core areas outside major Centers in New Castle County. Better marketing strategies and an exploration of new sites could be pursued to boost carpooling.



Source: DelDOT, MDSHA



* Park and Rides are locations where drivers can access transit or meet for a carpool or vanpool. Park and Pools are lots that are currently not served by transit, but are available for car/vanpools. Changes in capacity for Cecil County's Park and Ride location is unavailable.

Figure 22: Changes in Usage at Park & Rides 2000-2010

Public Opinion

Public opinion survey respondents were split in 2010 on whether or not the current transportation system needs minor or major improvements, but were not split on where to spend limited transportation dollars. Sixty-five percent of respondents felt that transportation investments should be made toward maintaining the existing system and not for constructing new facilities in developing areas. When asked what types of transportation investments should receive the highest priority, maintaining the existing system, improving technology, and providing more transit, walking, and biking options ranked highest.



Funding Priorities for Transportation Improvements

- Maintain and repair the existing transportation system
- Use technology to improve the transportation system
- Provide more options such as transit, walk or bike
- Build more roads and highways in developing areas
- Increase safety for all travel options



Transit Reliability

The DTC Long Range Plan lists performance targets for on-time transit service in New Castle County. From 2000 to 2011, the fixed-route service has consistently reached, and in most cases exceeded, the minimum target of 90% efficiency. Paratransit service has reached the target during the last three years, and it witnessed a sharp drop in 2011.





Sea-level Rise Impacts to TIP Projects

Sea-level Rise (SLR), a well-documented outcome of global warming, is a clear threat to coastal areas. WILMAPCO conducted a vulnerability assessment of our transportation network this past year, including potential impacts to planned projects. Inundation levels developed by Maryland and Delaware were used in the analysis.

The table below lists planned transportation projects, and their funding, through 2017. The scope of at-risk projects should be revisited to include SLR adaptation strategies, such as road/rail elevation, where appropriate. Or, perhaps, the wisdom of proceeding with a particular project should be reconsidered.

ID	Project	Level (m)	TIP Page	Category	Phase
1	Third Rail Track Expansion, Newark to Wilmington	0.5	2-68	Expansion	PE, C
2	Bridge 444 on Old Corbitt Road, East of Odessa, Bridge Improvements	0.5	2-15	Preservation	ROW, C
3	SR 141/I-95 Interchange, Reconfigure interchange, Improve ramp connections	0.5	2-51	Management	PD, PE
4	City of New Castle Improvements (SR9/3rd, SR9/6th), Reconfigure Alignment	0.5	2-39	Management	ROW, C
5	Bridge 159 on James Street over Christina River, Bridge Improvements	0.5	2-8	Preservation	С
6	Christina River Crossing, Construction of New Bridge	0.5	2-59	Expansion	PD, PE
7	Interstate Maintenance	0.5	2-29	Preservation	PD, PE, ROW, C
8	Bridge 687, 688, 693 Wilmington Drawbridge	0.5	2-21	Preservation	С
9	S. Market Street Rehabilitation	0.5	2-48	Management	С
10	C & D Canal Promenade: Delaware City	0.5	2-35	Management	PD, C
11	Wilmington Riverfront - AAA Parking	1	2-59	Management	PD, PRO, C
12	City of New Castle Improvements (SR9/3rd, SR9/6th), Addtional Cacacity	1	2-39	Management	ROW, C
13	Washington Street, New Castle, Pedestrian upgrades	1	2-39	Management	С
14	SR 9, New Castle Ave - 3rd St to Heald St, Pavement Reconstuction	1	2-30	Preservation	PD, PE
15	SR 9, River Road Flood Remediation	1	2-39	Preservation	PE

Table 10: SLR Impacts to FY 2012-2015 TIP Projects*

* Notes: This analysis compares our mapped TIP projects against established inundations levels (Delaware—0.5 m, 1.0 m, 1.5 m; Maryland—2 ft, 5 ft and a 10 ft surge). As detailed in Sea-level Rise: A Transportation Vulnerability Assessment of the WILMAPCO Region, "subsurface inundation" is used to assess impacts to planned projects. This approach flags projects on structures which face either an overtopping of the feature with water, or increases in water volume at their base.

Goal – Efficiently Transport People

Objective #2 Promote Accessibility, Mobility and Transportation Alternatives

Actions 36 Plan and fund multimodal projects **Improve Quality Efficiently Transport** Increase access to transit of Life People 789 Coordinate with implementing agencies on planning and design of complete streets and implement a Complete Streets Policy through the TIP Improve facilities for walking in Pedestrian Priority Areas • Improve pedestrian crossing facilities . Implement Multimodal Level of Service Standards (LOS), and • 6 perform multimodal LOS analysis Improve fixed-route transit to Transportation Justice (TJ) areas • Improve walkability within TJ areas • Continually monitor progress of TJ analysis . **Support Economic** Begin a dialogue to address concerns raised by seniors in our Growth, Activity, and region **Goods Movement** Fund strategic improvements to our region's transit system Establish a network of Pedestrian and Bicycle Facilities with member agencies

Numerous indicators are available to measure our ability to reach this goal, and many boast solid long-range performance targets. Promoting transportation accessibility and choice is key in reducing our region's auto-dependency, and ensuring the mobility of all residents.

Regional Indicators:

1. Route Mileage: Sidewalk and bikeways unparallel to our roadway network	page 40
2. VMT per Household: New Castle Co. residents logging less VMT	page 40
3. Mode Share: Alternative transport use drops	page 41
4. Bus Access: Continued growth in Cecil Co	page 41
5. TIP Funding by Mode: Marked shift away from multimodal projects	page 42
6. Transit Ridership: Strong growth across region	page 43
7. Bus Route Miles: Significant increase for Paratransit in New Castle Co	page 44
8. Bus Subsides: Paratransit growing and heavily subsidized	page 45
9. Bus Access to Adult Communities: Over half without public service	page 46
10. Percentage of Bike Plans Implemented: Good progress in Newark	page 47
11. Public Opinion: Availability of transportation options	page 47

Knowledge Gaps



Route Mileage

A 2011 count of roadway lanes, sidewalks and bikeways illustrates the composition of our region's transportation system. Roadway lane mileage easily outpaces sidewalks and bikeways in both New Castle and Cecil Counties.

The bulk of New Castle County sidewalks are located in the north. Incorporated areas are home to roughly 37% of existing sidewalks countywide. Roughly 6% of roadway route mileage can accommodate bicycle travel.

In Cecil County, stretches of sidewalk are found within town centers, but facilities connecting neighborhoods are lacking. Overall, 12% of roadways provide walking facilities, while roughly one-quarter can accommodate bicyclists.



Figure 25: Route Mileage in the WILMAPCO Region, 2011*

* The above chart only tracks state-maintained roadways in New Castle County. Lane mileage on roadways is measured throughout. The bikeway count includes only on-road statedesignated facilities and bike-capable shoulders.

Sources: DelDOT, MDOT, Cecil County

VMT per Household

Despite increasing transportation alternatives, American households still log about 26,000 vehicle miles per year. **Figure 26** shows the annual VMT per household for both counties. The largely rural Cecil County is well above the national average, while New Castle County edges just over it.



Figure 26: Annual Vehicle Miles Traveled Per Household

Sources: DelDOT, MDOT, US DOT, US. Census

Mode Share

In the past, transportation agencies concentrated on meeting the needs of automobile traffic, neglecting the needs of those who walk, bike, and use transit. A push to provide multimodal transportation options has been underway to reduce auto dependency, and the social, environmental and economic burdens it entails. In Cecil County, from 2005-2009 workers driving alone represented 81% of work trips, down from 86% in 2000. After years of steady decline, the percentage of New Castle County residents who drove alone to work increased in 2008 and 2009. Fresh initiatives and a recommitment to providing better alternative transportation are needed to reverse this trend.



Figure 27: Changes in New Castle County Residents' Journey to Work Mode Share 1990-2009

Source: United States Census 1990, 2000; American Community Survey 2001-2009

Bus Stop Access

The percentage of residents within reasonable walking distance (1/4 mile) of a bus stop has declined in New Castle County and increased in Cecil County during the past decade. Since 2003, the number of New Castle County residents close to a stop dipped by about 4,100. Although still constituting a small share of its overall population (20.3%), the number of Cecil County residents near a bus stop increased sharply since 2003. Continuing population growth outside our Center and Core TIAs (DART's core service area) and the expansion of Cecil County's bus service account for these trends.

Table 11: Population w	thin Walking Distance	of a Bus Stop 1996-2009
------------------------	-----------------------	-------------------------

County	1996	2000	2003	2007	2011
New Castle	272,913 (56.4%)	275,567 (54.9%)	283,551 (55.3%)	281,359 (52.8%)	279,393 (51.5%)
Cecil	2,193 (2.8%)	2,931 (3.4%)	3,346 (3.8%)	6,601 (6.4%)	21,620 (20.3%)
Regional Total	275,106 (49.2%)	278,498 (47.3%)	286,897 (47.7%)	287,960 (45.3%)	301,013 (46.4%)

Source: WILMAPCO, DTC

TIP Funding by Mode

Establishing other transportation modes begins by investing in transportation choices. Through the Transportation Improvement Program (TIP) we can trace a greater emphasis on roadway-only projects and less emphasis on multimodal.





Source: WILMAPCO



Transit Ridership

In previous years, the expansion of fixed-route service in Cecil County has contributed to the steady increase of ridership in the county. The fixed-route service continued its growth in 2010 with more than 36,000 riders annually, up 12% from the previous year. Meanwhile, the county's Paratransit service witnessed a modest 7% percent gain from 2009, but has declined by 19% since 2004.



In 2011, New Castle County's fixed route and Paratransit services boasted ridership exceeding 9 million. This was an increase of 22% since 2000. Paratransit trips more than doubled during this period, while ridership from the fixed-route service trended upwards by 18%.





Transit Ridership (cont.)

DTC contracts with SEPTA to provide commuter service between Newark and Philadelphia. Between 2000 and 2011 ridership increased by 83%. During 2011, the service peaked with a record of more than 1.15 million riders.

The Maryland Transit Administration (MTA) contracts with AMTRAK to provide the Maryland Area Regional Commuter (MARC) service. From 2000 to 2010 MARC ridership at the Perryville Train Station has steadily increased by more than 200%. However, since its peak of roughly 60,000 riders in 2007, ridership has slipped 3%.

Bus Route Mileage

In 2010, our region's population over the age of 65 constituted roughly 12% of our total population. By 2030, seniors in Cecil County are projected to comprise 15% of the population. Heightened demand for Paratransit services is an inevitable outcome, as the chances of becoming disabled multiply with age.

Nevertheless, in Cecil County, there has been a steady increase in route mileage for the fixed-route service in the past four years, whereas Paratransit mileage continues to trend downward. In 2010, the county's fixed-route services increased by 5% from the prior year--a total of about 30,000 more miles than Paratransit.



Figure 31: Commuter Train Ridership in the WILMAPCO Region, 2000-2011



Source: Cecil Co. Senior Services and Community Transit

Bus Route Mileage (cont.)

Overall, route mileage for both New Castle County's fixed-route and Paratransit buses witnessed an increase during the last decade. However, Paratransit service has increased miles traveled at a much greater rate than fixed-route buses. From 2000 to 2011. Paratransit more than doubled its route mileage whereas the fixedroute increased by only 7%. Fixed-route bus mileage had steadily grown until a recent 3% drop between 2009 and 2011.





As Figure 34 indicates, Paratransit requires more than six times the subsidy of the traditional fixed-route transit service in New Castle County and continues to increase. Riders on both services are charged far less. The fixedroute rider pays just over \$1, while the Paratransit user is charged \$2 per trip. From 2000 to 2011, the per trip subsidy for fixed-route has risen by \$2 per trip while Paratransit has increased by more than \$8. Passenger fares for the fixed-route bus service have not increased during the last 20 years.

\$35 -Fixed Route Paratransit \$30 \$25 \$20 \$15 \$10 \$5 \$-2001 2000 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 Source: DTC

Figure 34: New Castle County Bus Unsubsidized Costs per Trip, 2000-2011

Bus Access to Adult Communities

In 2007, WILMAPCO expanded upon its definition of Environmental Justice (EJ). Three new communities—the elderly, the disabled, and households without an automobile—were designated as transportation constrained. These "Transportation Justice (TJ)" groups, like their EJ counterparts, require special attention in the planning process. A report mapped concentrations of these groups in our region and made recommendations to improve accessibility and mobility within these identified areas.

Our region is home to an increasing number of age-restricted, adult communities, too many of which lie outside the realm of fixed-route bus coverage. **Figure 35** is a lists of existing and proposed adult communities beyond walking distance to a bus stop. In total, more than half (55%) lacked transit access in 2011. Like most proposed residential and commercial development, adult communities should ideally be placed within our region's Center and Core TIAs to check sprawl, and provide their residents more transportation options.





Implementation of Bicycle Plans

Promoting mode choice is key in reducing auto-dependency. The region has three adopted bicycle plans: 1.) Newark (2002), 2.) Wilmington (2008), and 3.) Elkton (2010). Another is underway for Cecil County (2012). These plans seek to improve the access, safety and comfort of bicycling, and link to other modes of transportation. The plans goals follow a "Five E's" planning approach as a way to frame and holistically address bicycle issues. **Figure 36** displays the implementation progress by category completed out of total recommendations—38 recommendations for Newark, 27 for Wilmington, and 48 total for Elkton.

In Newark, more than half of its recommendations have been implemented. For example, under the Education category, the Newark Bicycle Committee, Newark Police and volunteers conduct Bicycle Safety Checkpoints several times annually.

Since Wilmington's Plan was adopted, less than 20% of its recommendations have been implemented. Under the Engineering category, the City has added several bike racks in the downtown and installed "sharrows", or shared lane markings—the first in Delaware.

To date, 0% of Elkton's 2011 Bicycle Plan has been implemented.

Public Opinion

44% Engineering 9% 86% Education 17% 75% Encouragement 20% 25% Enforcement 0% 100% Evaluation 50% 58% Total Plan 15%

40%

60%

80%

100%

Newark Bike Plan (2002)

20%

Figure 36: Bicycle Plan Implementation Progress

Wilmington Bike Plan (2008)

When asked in our 2010 Public Opinion survey about the availability of transportation options respondents in both counties felt their choices were poor. When respondents were asked about the types of transportation they would like to have more access to, 34% stated bus and 28% reported train, with only 4% wanting more access to vehicles. Eighty-four percent of respondents in both counties also felt that improving access to buses and trains was either an important or critical issue.

0%



Variety of Transportation Options

Goal - Support Economic Activity, Growth and Goods Movement

Objective #1 Ensure a Predicable Public Investment Program



To support growth and vitality within our region, we need a systematic approach to investment. Coordinated investment into designated areas is needed to help support desired development patterns. These Transportation Investment Areas (TIAs) are designated: Center, Core, Community, Developing and Rural. Each has a different emphasis on transportation investment. To initiate smart growth development strategies like Transit Oriented Development (TOD) we will require the cooperation of multiple agencies and the public.

Regional Indicators:

1. Traffic Volumes: Steady or dropping in Centers and Core	. page 49
2. TIP Funding by Project Type: Expansion outpaces preservation in FY12	. page 50
3. Significant Interregional Projects: Mostly highway	page 51
4. Transportation Funding: Operations costs set to rise	page 52
5. Public Opinion: Effectiveness of improvements to the system	page 55

Knowledge Gaps:



Work to secure reliable funding sources dedicated to transportation

Traffic Volumes

DelDOT and MDOT tally the Average Annual Daily Traffic (AADT) along key segments in our region. Table 12 and Figure 37 breakdown changes in AADT between 2003 and 2010. Both interstates and state routes have seen the largest absolute increases. I-495 near Naamans Road (+25,515) and the US 1 Bridge at the C and D Canal (+16,509) has witnessed the most growth. Along the arterial network, changes largely reflect our recent patterns of population growth. Several highways (such as SR 2 in Newark and SR 9 south of Wilmington) in our Center/Core TIAs have remained steady or declined in volumes. Further, traffic has dropped along US 40 near I-95 and the Cecil/ Hartford Counties line.

Site	New Castle	Road Type	TIA	2003 AADT	2010 AADT	Change 03-10	% Change
1	I-95 @ Toll Plaza	Interstate	Core	76,774	72,434	-4,340	-5.7%
2	I-295, Del. Mem. Br.	Interstate	Core	94,331	87,643	-6,688	-7.1%
3	SR 1 at Biddles Corner Toll Plaza	Principal Arterial	Developing	37,228	50,600	13,372	35.9%
4	I-95, east of SR 7	Interstate	Core	188,827	168,350	-20,477	-10.8%
5	I-495, near Blvd Body Shop	Interstate	Core	67,192	70,004	2,812	4.2%
6	SR 9, North of I-295	Minor Arterial	Core	17,291	16,993	-298	-1.7%
7	US 202, near Widner College	Principal Arterial	Core	51,327	49,161	-2,166	-4.2%
8	SR 261, N. of Blue Ball	Principal Arterial	Core	11,930	12,248	318	2.7%
9	SR 7, North of Milltown Rd.	Principal Arterial	Core	36,737	37,400	663	1.8%
10	SR 2, East of Windy Hills	Principal Arterial	Center	32,314	32,315	1	0.0%
11	US 40 near MD Border	Principal Arterial	Core	31,592	30,704	-888	-2.8%
12	US 301, west of Middletown	Principal Arterial	Rural	14,439	1,367	-13,072	-90.5%
13	SR 896, Summit Bridge	Principal Arterial	Rural	27,690	20,631	-7,059	-25.5%
14	US 1 Bridge @ C& D Canal	Principal Arterial	Community	59,591	76,100	16,509	27.7%
15	SR 4 at Chrysler Entrance	Principal Arterial	Center	22,143	23,482	1,339	6.0%
16	SR 273, near MD border	Minor Arterial	Center	8,836	8,545	-291	-3.3%
17	SR 7, near PA border	Principal Arterial	Community	14,470	15,957	1,487	10.3%
18	SR 52, near PA border	Principal Arterial	Rural	11,312	10,544	-768	-6.8%
19	US 13, St. Georges Bridge	Minor Arterial	Rural	6,968	9,770	2,802	40.2%
20	US 202 North of Naamans Rd.	Principal Arterial	Core	44,219	41,718	-2,501	-5.7%
21	SR 92, East of US 202	Principal Arterial	Core	27,157	27,575	418	1.5%
22	US 301 south of NC 15	Principal Arterial	Developing	22,281	23,348	1,067	4.8%
23	SR 896 East of Mt Pleasant Rd.	Principal Arterial	Developing	11,670	12,205	535	4.6%
24	US 13 North of Blackbird Rd.	Principal Arterial	Rural	25,160	13,256	-11,904	-47.3%
25	SR 71, North of US 13	Minor Arterial	Rural	5,709	6,601	892	15.6%
26	US 13, N. of Blackbird	Principal Arterial	Developing	15,692	21,996	6,304	40.2%
27	SR 1, N. of KC Border	Principal Arterial	Rural	39,078	37,893	-1,185	-3.0%
28	I-95, near Naamans Rd	Interstate	Core	59,238	46,533	-12,705	-21.4%
29	I-495, near Naamans Rd	Interstate	Core	32,069	57,584	25,515	79.6%
30	DE 9 at Reedy Point Bridge	Principal Arterial	Rural	1,504	1,365	-139	-9.2%
31	SR 7 S. of Little Baltimore	Minor Arterial	Community	20,196	27,879	7,683	38.0%
32	NC 427 N. of NC429	Minor Arterial	Developing	3,007	4,803	1,796	59.7%
Site	Cecil	Road Type	TIA	2003 AADT	2010 AADT	Change 03-10	% Change
А	MD 213 North of Cayots Corner Rd.	Minor Arterial	Rural	10,409	8,260	-2,149	-20.6%
-							

Site	Cecil	Road Type	IIA	2003 AAD I	2010 AADT	Change 03-10	% Change
Α	MD 213 North of Cayots Corner Rd.	Minor Arterial	Rural	10,409	8,260	-2,149	-20.6%
В	US 40 @ Cecil/ Harford Line	Principal Arterial	Center	28,508	27,699	-809	-2.8%
С	I-95 @ Harford/Cecil Line	Interstate	Core	81,314	82,271	957	1.2%
D	MD 279 South of I-95*	Minor Arterial	Center	14,075	12,481	-1,594	-11.3%
Е	MD 273 East of Rising Sun*	Minor Arterial	Rural	7,425	5,230	-2,195	-29.6%
F	MD 272 @ PA Line*	Minor Arterial	Rural	6,935	6,980	45	0.6%
G	MD 213 South of MD 273*	Minor Arterial	Rural	5,450	5,362	-88	-1.6%

* Not a permanent counter location Sources: DelDOT, MDOT

Figure 37: Traffic Count Locations versus Investment Areas



Center – Highest concentrations of population and/or employment with established land uses and development patterns. Emphasis on intensive transportation investment

<u>Core</u> - Municipal and nonmunicipal areas which contain densely settled population and employment patterns. Maintain existing infrastructure and expand system for all modes of transportation.

<u>Community</u> - Established land uses and development patterns and growth and development pressures are moderate. Expand and improve transportation facilities and services, and make each as safe and efficient.

Developing - Land uses and development patterns are not yet set and continue to emerge. Encourage growth and rational development through land use coordination and policy actions consistent with zoning designations.

<u>Rural</u> - Limited growth and development exist or are expected. Preserve existing transportation facilities and services.

Table 12: Traffic Volume Changes 2003-2010

TIP Funding by Project Type

Nearly half of our region's recent population growth has occurred in our region's center/core investment areas. These areas are older, with well established infrastructure. Considerable funding must be reserved for the preservation of our existing transportation infrastructure there, as these aging facilities require an increasing amount of care and attention. Traditionally the largest share of funding is devoted to the preservation of our transportation system. **Figure 38** shows that preservation funding in the TIP has witnessed a steady increase during the last decade. However, as illustrated by **Figure 39**, the percentage of funding set aside for preservation and management projects has fallen. Meanwhile, the percentage of funding allocated to system expansion projects has increased. As a percentage of total spending, funding for expansion outpaced that set aside for preservation in FY '12. This seems to contradict our "maintenance first" policy.



Figure 38: TIP Allocations by Project Type



Figure 39: Percentage of TIP Allocations by Project Type

Significant Interregional Projects

Based on the Transportation Improvement Programs (TIP) of surrounding agencies, there are several major projects and studies in progress or slated for completion in the near future. The table below lists projects identified in our 2008 Inter-Regional Study within or near WILMAPCO's borders that may have a significant effect on traffic flows to and from the region. More than \$1.5 billion is estimated to be spent on these projects up to FY 2015 and beyond. As the table reflects, the vast majority of our major transportation projects are highway upgrades, suggesting our continued over-reliance on that system.

ID	State	Project	2007 Status	2011 Status	Current Funding*	Outyear Funding
1	DE	I-95 Fifth Lane Expansion	NC	С	n/a	n/a
2	DE	I-95 Toll Plaza & Rehab	NC	С	\$5,583.9	\$0.0
3	DE	I-95 & SR1 Interchange	NC	NC	\$127,841.9	\$0.0
4	DE	US 40 Corridor Improvements	NC	NC	\$10,800.4	\$148,700.0
5	DE	New Castle County Rail Improvements	NC	NC	\$68,536.0	\$0.0
6	DE	SR 7, North of SR 72 to PA line	NC	NC	\$0.0	\$0.0
7	DE	Blue Ball Properties Improvements	NC	С	n/a	n/a
8	DE	US 301, MD State Line to SR 1	NC	NC	\$577,465.8	\$93,380.2
9	DE	SR 41, Lancaster Pike	NC	NC	\$0.0	\$0.0
10	MD	I-95, Susquehanna River to Delaw are State Line	NC	NC	\$0.0	\$0.0
11	MD	MARC Commuter Rail Extension: Perryville to Elkton	NC	NC	\$0.0	\$0.0
12	NJ	I-295, Paulsburo Brow nfields Access	NC	NC	\$0.0	\$0.0
13	NJ	1-295, Rehabilitation	NC	NC	\$0.0	\$0.0
14	NJ	F295 (Northbound)	NC	NC	\$0.0	\$0.0
15	PA	PA-41	NC	NC	\$3,385.0	\$0.0
16	PA	US 1 Reconstruction	NC	NC	\$0.0	\$0.0
17	PA	US 322 Study	NC	NC	\$11,380.0	\$61,330.0
18	PA	US 202 (Section 100)	NC	NC	\$1,093.0	\$374,866.0
19	PA	PA 896 Corridor Safety Improvements	NC	NC	\$0.0	\$0.0
20	PA	⊦95, Moderate Rehabilitation	NC	NC	\$0.0	\$0.0
21	PA, NJ	Delaw are River Tram	NC	NC	\$0.0	\$0.0

Table 13: Status of Significant Inter-Regional Projects

All \$ x 1,000

*FY 2011-2014 or FY 2012-2015 Transportation Improvement Programs

NC = Not Complete; C = Complete

Sources: WILMAPCO, Dover/ Kent MPO, DVRPC, Chester County, NJDOT, BMC

Current and Future Funding Situation for Delaware

Despite the boost in federal funding during 2009, DeIDOT has not recovered from the state's historic budget challenges. DeIDOT's overall transportation budget has been reduced resulting in less roadwork and fewer capital projects. DeIDOT reportedly reduced their FY 2009 budget by \$40 million and FY 2010 budget by \$44 million. **Figure 40** illustrates the State's limited capacity for future investments, particularly due to decreasing state funds required to match federal funds. By FY 2017, total funding for statewide capital improvements may decline by 54% (since FY 2007). With limited funds, uncovering new revenue streams and prioritizing investments becomes increasingly important.



Figure 40: Total Funding for Delaware Statewide Capital Improvements: FY 2007 - 2017

Source: DelDOT Base Financial Plan FY 2010 and FY 2011 \$ x 1,000

Close to \$1 billion have been allotted to the following seven projects in Table 14.

Table 14: Major Construction Projects Programmed for New Castle County

Project	Ар	proximate Cost	Anticipated Completion
I-95 & US 202 Interchange	\$	38,895,000	2014
Newark Regional Transportation Center	\$	17,398,000	2016+
SR 1/ I-95 Interchange	\$	127,842,000	2015
Third Rail Track Expansion	\$	42,849,000	2014
US 301: Maryland Line to SR 1	\$	704,000,000	2016+
Westown Transportation Improvements	\$	2,370,000	2015
Wilmington Riverfront*	\$	34,675,000	2017
TOTAL	\$	968,029,000	

* Includes Christina River Crossing

Source: WILM APCO's 2012-2015 Transportation Improvement Program

Operating Costs Continue to Rise

One factor contributing to decreases in capital funding is higher operations costs. **Figure 41** shows how much of the total transportation revenue is expended on operations and what is available for capital investments. As shown, the total transportation budget decreases, but operations continue to increase. In FY 2011 operation expenses are projected to consume more than two-thirds of the overall spending, and by FY 2017 more than half of the budget may be consumed by operations.



Source: DelDOT Base Financial Plan FY 2010 & FY 2011. Includes both DTC and DelDOT operations. \$ x 1,000

Figure 42 shows that the cost to operate the Department of Transportation and Delaware Transit Corporation will continue to increase. Looking out to FY 2017, operation expenditures are expected to soar by another 23% from FY 2011.



Figure 42: Operations Costs for DelDOT & DTC

Source: DelDOT Base Financial Plan FY 2010 & FY 2011 \$ x 1,000

Revenue Sources– Maryland

After the state of Maryland meets its core operating needs and debt services, available revenues for capital projects are projected to become increasingly limited. The figure below shows a decrease in capital funding since FY 2006. While private or bond resources may become available for the capital program, state sources are projected to once again comprise the bulk of funding for improvements.



Figure 43: Funding Sources for Capital Improvements, FY 2006-2016

Figure 44 compares the total available capital and the total expenditures of the State's operations. Similar to Delaware, operations costs in Maryland consume two-thirds of revenues. By FY 2016, the state is expected to spend more than \$1.85 billion in meeting core operating needs; for FY 2001 that cost was \$979 million.





Public Opinion

WILMAPCO's 2010 Public Opinion Survey sought to better understand the public's perceived effectiveness of transportation improvements. Of the choices given, improving traffic signal timing (58%), building more sidewalks connecting residential and commercial areas (42%), and existing highway widening (39%) were thought to be the most effective, while building new highways (20%) was seen as the least effective.

When respondents were asked about various methods of funding the transportation system, 74% supported delaying or eliminating projects, 65% supported developers paying fees to fund projects, and 65% supported including the private sector in transportation funding. The least supported methods of funding the transportation system included raising gas taxes (74%), increasing fares on MARC trains or DART buses (62%), and raising tolls (61%).



Effectiveness of Improvements for the Transportation System

Goal – Support Economic Growth, Activity, and Goods Movement Objective #2 Plan and Invest to Promote Attractiveness of the Region



Our region is home to a diverse and vibrant economy. In order to attract businesses, our transportation system needs to facilitate the flow of goods and employees in, out and within the region. In addition, it should enhance the attractiveness of our communities by providing adequate transportation choices that will promote growth, development and tourism, along with establishing a sense of community pride.

Regional Indicators:

1. Employment Access to Bus Stops: Steady increases since 1996	. page 57
2. Job Diversity: Education and Health Services grow	. page 57
3. Unemployment Rate: Wilmington's rate tops surrounding regions	. page 57
4. Freight: Declines in Port of Wilmington tonnage	. page 58



Knowledge Gap:

Establish better relationship between transportation and tourism

Objective – Plan and Invest to Promote the Attractiveness of the Region

Employment Access to Bus Stops

Table 15 shows that the number of jobs within walking distance to bus stops in the region has increased steadily since 1996. Walking distance to stops in both counties was considered 1/4 mile.

Table 15: Employment within Walking Distance of a Bus Stop

County	1996	2000	2003	2007	2011
New Castle	62%	64%	64%	63%	64%
Cecil	17%	17%	17%	28%	68%
Regional Total	58%	59%	60%	60%	65%

Source: WILMAPCO, DTC

Job Diversity

A sign of a healthy regional economy is a variety of industries. **Figure 45** compares recent changes in employment, by sector, between the WILMAPCO region and the neighboring Philadelphia and Baltimore regions. Generally, we have seen greater increases in education, health and other services jobs than the other regions, while rates of job loss in construction, manufacturing and professional and business services have been more pronounced.

Figure 45: Changes in Employment by Sector 1998-2011



Source: Bureau of Labor Statistics

 * DE/MD/NJ Metropolitan Division includes the counties of New Castle (DE) , Cecil (MD) and Salem (NJ)

Unemployment Rate

Figure 46 illustrates trends in unemployment since 1998. Since 1998 the WILMAPCO region has generally enjoyed a lower unemployment rate than neighboring regions. The recent global recession reversed this trend. While the WILMAPCO region's unemployment rate remains under the U.S. average, it is higher than the Philadelphia and Baltimore regions.

Figure 46: Annual Unemployment Rate 1998-2011



Source: Bureau of Labor Statistics; DE/MD/NJ Metropolitan Division includes the counties of New Castle (DE), Cecil County (MD) and Salem County (NJ)

Objective – Plan and Invest to Promote the Attractiveness of the Region

Freight

Our transportation system is not only designed to move people, but also commodities they desire. An estimated 135 million tons of goods originated, terminated, or passed through the WILMAPCO region in 2005, making freight a vital portion of our economy. Ensuring that there is adequate infrastructure in place to handle these goods is critical.

The Port of Wilmington serves as the largest generator of freight in our region. A mix of products pass through the port, but it is best known for its fresh fruit imports. About half (42%) of its total tonnage in 2008, for example, was comprised of bananas, and other fruits and juices. **Figure 47** shows total tonnage the port receives annually. After several years of growth, port tonnage has declined since 2000.





During the past decade, the port has seen its commodities shift from liquid/petroleum domination in 1991 to a somewhat more balanced mix, with containerized cargo greatly increasing its share of the total tonnage. Liquid/petroleum cargo has rebounded from its low in 2007, nearly equaling containerized shipments in 2009.





Source: Diamond State Port Corp.

IV. – Conclusions and Future Challenges

This report was designed to review the transportation challenges our region encounters and to gain a better understanding of which challenges need the most attention. Since this report is produced bi-annually, it serves as a catalyst to initiate modifications to planning activities. These include improved data collection, regional studies and research analysis. In addition, modifications such as these allow for continuous course correction as needs are identified, rather than waiting for the four-year RTP cycle to be completed. Based on the findings from the 2011 Regional Progress Report, the following items represent some of the more pressing issues. Many were first identified in our 2007 report.

Significant Trends

- Continued population growth outside our region's Core has spurred increased transportation investment in our Developing and Rural areas. Encouraging the infill and redevelopment of land along the I-95 corridor while checking growth outside our Core will make for a more sustainable future.
- The percentage of TIP funding set aside for multimodal projects has sunk steadily since 2003, while funding for highway only projects (lead by I-95 work and a new US 301 expressway) has risen. Additional funding for other modes, especially transit, would provide more sustainable alternatives, rather than increasing the length and capacity of our highways.
- Despite declines, the rate of automobile crashes per million miles traveled in New Castle County remains higher than the national average. We must work with our partner agencies to promote safer travel.
- Ride quality along New Castle County's state maintained roads is below the state's target. We must continue to place a higher priority on preserving existing infrastructure.
- Residents in the Wilmington region drive more than the average American. Reducing car trips, along with associated mileage, will work best towards lowering ozone, fine particulate matter and greenhouse gas emissions. Vehicle miles traveled reductions would also encourage healthier transportation choices.
- Our low-income and minority neighborhoods are underserved by the transportation system. While these areas experience a higher proportion of crashes, TIP funding set aside for transportation improvements in low-income and minority areas has dropped each year since 2004. Working through our Environmental Justice initiative, we will continue to highlight strategies to identify and mitigate these inequities.
- New Castle County has made good progress completing its leg of the East Coast Greenway. We must coordinate with our partners in Cecil County, where little work had been completed.
- Delaware's costly Paratransit service continues to expand. Limiting this service to simply meet (and not exceed) federal requirements may free funding to enhance and expand the fixed-route network.
- Operations expenses are projected to consume a greater and greater share of transportation resources in the years to come. We must rethink the expansion of our network, or identify new revenue streams to meet future needs.

Many of these trends are the result of our current land development pattern. We must continue to encourage smarter land use patterns, such as greater density, that reduce our dependence on cars and promote safer, healthier, and more sustainable forms of transportation.

Review of Challenges

The chart below contains a revised list of challenges for WILMAPCO. Through the UPWP, RTP and other member agency efforts, a concerted effort is needed to address these challenges. This list will serve as a guide for future staff efforts.

Challenges

- **Creating alternatives to the automobile:** Efforts must continue to promote projects which reduce auto dependency.
- **Meeting increased demand for goods movement:** With freight movement expected to increase between 50-70% during the next 20 years, capital improvements must be made to reduce congestion, increase mobility for freight and ensure the safety of other motorists.
- **Ensuring transportation equity:** Staff will continue in its efforts to identify and mitigate the transportation challenges to our Environmental (low-income and minority) and Transportation (elderly, disabled, zero-car household) Justice communities encounter.
- **Supporting Center and Core TIAs:** Our municipalities and surrounding communities represent concentrations of infrastructure, and should represent concentrations of investment and redevelopment.
- Addressing congestion: Dispersed land use patterns, high rates of single occupancy trips, and our substantial rate of automobile ownership contribute to congestion on our region's highways.
- **Financing the transportation system:** Significant funding issues have arisen at the regional and national levels, which has delayed the completion of previously programmed projects.
- **Supporting sustainable economic growth:** Only transportation projects which advance the sustainable, livable and smart development of our region should move forward.
- **Preserving aging infrastructure:** Under our "maintenance first" policy, WILMAPCO believes that keeping pace with required maintenance enhances the quality and efficiency of our transportation system.
- Addressing increased inter-regional strains: Goods and people travel through our region to reach other destinations. Many of these companies and people do not contribute to the upkeep of our transportation infrastructure.
- Addressing climate change, sea-level rise and energy use: Automotive transportation releases a significant amount of greenhouse gas emissions into our atmosphere, speeding global warming. Reducing the amount our residents drive through the promotion of alternative forms of travel and sensible land use decisions will work towards a more sustainable future.
- Addressing health concerns: Levels of obesity, asthma and other health issues are exacerbated by our current transportation system. Staff will continue exploring ways to help mitigate these concerns.
- Comply with the new transportation bill: A new transportation bill has been expected from the U.S. Congress for some time. Meeting its likely more aggressive requirements will be a high priority for staff.

V. – Appendix

Appendix A

Complete Listing and Status of 2040 RTP Projects

Complete Listing and Status of 2040 RTP Projects (Constrained List)

Category	Cost in YOE (x \$1,000)	Total Funding in FY 2012 TIP	Projected In Service Date	2012 Project Status
Bicycle/Pedestrian	* 0.000.40	\$ 450 00	0040	
Grubb Road, SR 261: Foulk Rd. to Naamans Rd., Ped. Improvements	\$3,922.49	\$450.00	2016	Funded for construction in TIP outyears
I ransit Cecil College to North East Connector	\$ 11 <i>1 1</i>	\$11.00	2012	Eunded in EV 2012 TIP
Cool Transit Connection to Harford County	\$104 \$104	\$1.00	2012	
	\$1.04	\$1.00	2011	
Enclore Computer Bail: Pernwille to Newark (MARC extension)	902.40 TPD	\$00.00	2012	Project pet funded in EV 2012 TIP
Permulle Outlet/Chesapacke Overlack Connector	1DD \$21.94	\$2100	2020	Funded in EX 2012 TIP
Peil, Nework to Eliter (SEDTA extension)	φ2 1.04 TDD	\$2 I.00	2012	
Saturday Pus Saniaa – Bernville and Northeast	¢24.22	¢22.00	2030	Finded in EV 2012 TIP
Cacil County Projects	\$J4.52	\$33.00	2012	
MD 213: Frenchtown Road to LIS 40	\$32,866,85		2030	Project not funded in FY 2012 TIP
MD 272: US 40 to Lums Rd	\$32 86142		2020	Project not funded in FY 2012 TIP
L 95: Susquehanna River to Delaware State line	\$1637 915 74		2020	Project not funded in FY 2012 TIP
City of New Castle	¢ 1,007 ,0 1017 1		2010	
City of New Castle Improvements (SR9/Delaware St)	\$27,457.42	\$2,890.00	2016	Funded for construction in FY2012 TIP
City of New Castle Improvements (SR9/3rd and SR9/6th)	\$1,771.45	\$130.00	2016	Funded for construction in TIP outyears
SR 9. River Rd, Area, Dobbinsville (viaduct)	\$18,799,10	\$0.00	2020	Funded in TIP outvears
Washington Street, New Castle & Frenchtown Road at DE9	\$8,436.48	\$6,726.00	2013	Funded in FY 2012 TIP
Newark/ Elkton Plan		1 1 1 1 1 1 1	1	
SR 2, Elkton Rd: Casho Mill Road to Delaware Ave	\$33,183.49	\$13,749.60	2013	Funded for construction in FY2012 TIP
SR 2, South Union St: Railroad Bridge to Sycamore St.	\$6,668.19	\$4,700.00	2014	Funded for construction in FY2012 TIP
Westown		·	· · · · · · · · · · · · · · · · · · ·	
US 301: Middleneck Rd to Peterson Rd	\$20,800.00		2011	Project Completed
Wiggins Mill Road	\$2,587.19	\$2,320.00	2013	Funded for construction in FY2012 TIP
Wilmington		•	· · · · · · · · · · · · · · · · · · ·	
Christina River Bridge	\$32,121.30	\$34,252.00	2020	Funded for construction in FY2012 TIP
Southbridge Streetscape Improvements Phase I (TE)	\$1,298.00		2012	Funded for construction in FY2012 TIP
I-95 MD Line to I-295 Program				
Road A / SR 7 Improvements	\$16,702.21	\$10,300.00	2016	Funded for construction in FY2012 TIP
SR 1/ I-95 Interchange	\$218,997.52	\$127,841.90	2015	Funded for construction in FY2012 TIP
US 202/ DE 141 Area	# 50,404,40	#00.005.00	0045	
- 95 & US 202 Interchange	\$50,491.10	\$38,895.20	2015	Funded for construction in FY2012 TIP
Southern New Castle County Improvements	\$68 387 20	\$21284.40	2020	Eunded for construction in EV2012 TIP
SD 806 at N 54 & N306 Intersection, Including Howell School Poad to SP 71	\$12,774,86	\$21,204.40	2020	Funded for construction in FY2012 TIP
US 201 MD State Line to SP 18 Spur	\$12,774.00	\$10,500.00	2015	Funded for construction in FY2012 TIP
	\$920,415.97	\$577,405.80	2017	
US 40. Eden Square Connector	\$4,379,95	\$100.40	2015	Funded for construction in TIP outvears
Road Expansion and Management	.,			
I-295: Westbound from I-95 to US 13	\$3,542.89	\$5,700.00	2016	Funded for construction in FY2012 TIP
Other Intersection / Road Improvements		·	·	
BR 1-651CSX Rail Crossing over Newport Rd. near Delcastle H.S.	\$7,592.00	\$1,298.00	2011	Funded for construction in FY2012 TIP
Greenbank Rd and Alberstson Blvd. Intersection	\$1,297.92	\$1,200.00	2012	Funded for construction in FY2012 TIP
I-95, Carr Road and Marsh Road Interchange Improvements	\$3,037.13	\$2,700.00	2013	Funded for construction in FY2012 TIP
Lea Blvd - Tatnall to Market Sts.	\$2,137.24	\$1,900.00	2013	Funded for construction in FY2012 TIP
Mill Creek Road and Stoney Batter Road Intersection	\$3,569.28	\$3,300.00	2012	Funded for construction in FY2012 TIP
SR 141: SR 2, Kirkwood Hwy. to Faulkland Rd. (includes Br - 160)	\$38,695.32	\$507.00	2013	Funded for construction in FY2012 TIP
SR 2 / Upper Pike Creek Rd. Intersection	\$738.40	\$710.00	2011	Funded for construction in FY2012 TIP
SR 273 / Harmony Rd. Intersection Improvements	\$1,776.29	\$1,200.00	2020	Funded for construction in FY2012 TIP
SR 273 / Prangs Lane Intersection	\$374.40	\$360.00	2011	Project Completed
SR 4, SR7 to N. DuPont Rd.	\$3,649.96	\$3,000.00	2015	Project not funded in FY 2012 TIP
SR 41/Hercules Rd. Intersection	\$3,677.44	\$3,400.00	2012	Funded for construction in FY2012 TIP
SR 71, Old Porter Rd. to SR 7	\$1,286.84	\$1,100.00	2014	Funded for construction in FY2012 TIP
SR 72, McCoy Road to SR 71	\$26,052.30	\$3,050.00	2020	Funded in FY 2012 TIP
SR 72, Possum Park Road: Possum Hollow Road to Old Possum Park Road	\$2,433.31	\$2,000.00	2015	Funded for construction in FY2012 TIP
SR 82 / SR 52 Intersection	\$2,163.20	\$2,000.00	2012	Project not funded in FY 2012 TIP
SR 896 / Four seasons Blvd. Intersection	\$647.92	\$623.00	2011	Project Completed
SR 896 and Old Chestnut Rd. Intersection	\$1,468.17	\$1,255.00	2014	Funded for construction in FY2012 TIP
US 13, Bacon to McMullen Ave.	\$1,012.38	\$900.00	2013	Funded for construction in FY2012 TIP

Appendix B

Addressing 2040 RTP Actions

Addressing Actions in the 2040 RTP

Goals, Objectives and Strategies	Projects/Methods to Address Action
Goal: Support Economic Activity, Growth and Goods Movement	
Objective #1 Ensure a Predictable Public Investment Program	Lies Decised Descrees Densit and ensuel TD decument to meniter % of excitable receive sport on
Adequately invest in our designated Transportation Investment Areas	projects within appropriate Transportation Investment Areas (TIAs)
Coordinate with DOTs and land use agencies as they implement completed sub regional plans	Include new and approved plans in the UPWP and provide public outreach and technical assistance to help
Work with land use agencies to encourage future growth in areas with existing infrastructure to efficiently	Review comp. plan updates of all counties/municipalities and incorporate recommendations into regional
use our limited transportation resources	progress report
Use WILMAPCO's approved prioritization process to select projects for funding	available
Seek additional innovative funding sources for transportation improvements and utilize existing funds more	Continue to provide educational materials to the public and regional decision makers about innovative
Identify dedicated funding sources for transit operating and capital budgets that will keep pace with inflation,	
rising demand and changing ridership patterns	Next through BAC to provide outreach
Develop more comprehensive performance targets for the region	Work towards better performance targets within the Regional Progress Reports
Continue to complete annual Congestion Management Process report and integrate findings into the TIP	Complete CMP Report annually
Continue to evaluate intercounty rapid transit for New Castle County	Participate in University of Delaware Study
Work with economic development, tourism and transportation agencies to establish a better relationship between transportation and tourism	Assist with scenic byway planning, East Coast Greenway, Northern Delaware Heritage Coalition, and other initiatives
Continue to work towards intercounty transit with Cecil County and filling the regional transit gap with	Completion of the "Fill in the Gap" Study and particiante in discussions regarding BRAC
passenger rail service from Perryville to Elkton Support efforts to extend passenger rail service from Wilmington to Dover, including the creation of transit	
supportive development along the intended corridor	Promote the incorporation of TOD in southern New Castle County
Enhance the Freight/Goods Movement Analysis Capacity Enhance our Goods Movement Capabilities	Increase data collection activities Completion of WILMAPCO Freight & Goods Movement Analysis
Plan, fund and implement a comprehensive goods movement program	Completion of WILMAPCO Freight & Goods Movement Analysis
Continue Partnership with noesnaning agencies	Continue coordination efforts with Carshare, Rideshare DE and Transit Check outreach
Objective #1 Improve Transportation System Performance	
Work with transit providers to expand Regional Transit and Ridesharing information through implementation	Research best practices
or real-time travel information via telephone, on-site, and computer-based systems	Collaborate with local and regional transit agencies
Fund Projects that make better use of Intelligent Transportation Systems (ITS)	Develop "CMS Sub-Report" to analyze effectiveness of Congestion mitigation measures to gauge their
Improve implementation of "Maintenance First" Policy by funding a TIP that makes improving the condition	impact on reducing Congestion
of the existing transportation network the top priority	preservation & maintenance projects
Work with DOTs to design transportation facilities to reduce future maintenance costs Work with transit agencies to improve transit efficiency and desirability by recommending and funding	Research best practices
projects that reduce bus travel times	Research best practices; completed Downtown Wilmington circulation study
Fund enhancements to Park & Ride Facilities.	Examine overall usage of park & ride facilities from annual usage information to determine a prioritized list of too performing locations
Expand Transportation Systems within the Center and Community Transportation Investment Areas where	Use of Regional Progress Report and TIP to monitor % of available revenue spent within Center and
necessary Objective #2 Promote Accessibility, Mobility and Transportation Alternatives	Community Investment Areas
Continue to plan for and fund multimodal projects	Use Regional Progress Report and annual TIP document to monitor % of available revenue spent on multi-
Increase access to transit with technology, service expansion, park-and-rides, bus facilities, sidewalks and	modal projects
bicycle racks on transit vehicles	Collaborate with local and regional agencies
Coordinate with implementing agencies on planning and design of complete streets. Implement a Complete Streets Policy through the TIP	candidiate project submission
Improve Facilities for Walking in Pedestrian Priority Areas by funding pedestrian improvements within	Continue to promote "Walkable Communities"
Work with transportation agencies to improve bedestrian crossing facilities	Promote funding of improvements in high pedestrian prioritity areas, areas with pedestrian crashes, EJ/TJ
Work with DOTs. counties and municipalities to implement Multimodal Level of Service (LOS) Standards.	areas and other identified areas Using the CMS, continue efforts to incorporate other modes and their LOS into the Congestion
and perform multimodal LOS analysis	Management Process (CMP)
Implement improved inced-route public transit service to 13 areas, where necessary Implement recommended walkability enhancements within TJ areas, where identified, and continue to	Identify and advocate for increased lixed-route service to poony-served 13 areas
retrofit facilities to meet ADA standards Continually monitor the progress of recommended strategies to address the transportation needs of T L	
communities, especially households without access to an automobile	Use the Regional Progress Report to update and expand upon TJ analysis
Begin a dialogue to address accessibility and mobility concerns raised by seniors in our region Fund strategic improvements to our region's transit system to address the key issues and challenges	Discuss and build upon findings from the 2006 Senior Transportation Survey
facing our region	Participate in University of Delaware Studies
Establish a network of Pedestrian and Bicycle Facilities in partnership with member agencies	Update existing non-motorized facilities inventory using new aerial photos. Also, develop more responsive updating system using development plans supplied by land use agencies
Goal: Improve Quality of Life	
Objective #1 Protect Public Heath, Safety & Welfare	HSID participation, crach data analysis, etc.
Assist Homeland Security agencies in developing and assessing the effectiveness of transportation security	Continue participation in Transportation Management Teams (TMTs) sponsored by DeIDOT
and evacuation plans	Assist schools in developing Safe Routes to School plans and programs
Continue to fund traffic calming in residential areas, near schools and business districts, and areas where	Coordinate with DOTs to promote the identification of priorities and implement existing traffic calming plans
arterial roads bisect incorporated and unincorporated communities	such as the Newark Traffic Calming Plan. Work with other communities to develop traffic calming plans as needed
Promote the healthy communities through transportation	Improve outreach and coordination with public health officials to promote mobility friendly community design
Conform to Air Quality Conformity Requirements	and active transportation options Continue to fufill federal requirments through the coordination of the AQS
Objective #2 Preserve our Natural, Historic, and Cultural Resources	
Provide assistance in the development of Byway Corridor Management Plans and work with DOTs to implement Context-Sensitive transportation improvements, as identified in Corridor Management Plans	Work with local committees to develop and implement corridor management plans for scenic byways. Lend technical assistance to these committees when appropriate
Limit projects within Rural Transportation Investment Area to preservation and safety	Focus TIP funding in rural TIAs on safety and preservation projects only
Incorporate objectives of county and municipal Comprehensive Plans into transportation plans	Collect, review, and summarize county and municipal comprehensive plans
Implement context-sensitive solutions for livable streets	Research best practices
Work with land use agencies and other stakeholders to encourage use of mobility friendly design and to develop and adopt mobility friendly design standards for additional jurisdictions	See objective
Objective #4 Provide and Promote Transportation Opportunity & Choice	
Enhance analytical capabilities and explore new methodologies for addressing the transportation needs of	Use Regional Progress Report to explore additional analytical methods; produced 2009 EJ Report
السوين المراجع الم المراجع المراجع م مراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع المراجع الم	See objective
activities and public awareness Continually monitor the progress of recommended strategies to combat issues of under paragentation	
isolation, and lack of transportation alternatives found within EJ and TJ communities	Use Regional Progress Report to update and expand upon EJ analysis
Ensure Affordable Transportation Choices	Promote affordable transportation and monitor transportation expense in the Progress Report
Coordinated with Human Service and Transit Agencies to plan United We Ride, New Freedom, Job Access and Reverse Commute, and Special Needs of Elderly Individuals and Individuals with Disabilities Programs	Update and improve local plans
and neverse commute, and operativeeus of Eldeny individuals and individuals with Disabilities Programs	

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Thank you for taking the time to read the WILMAPCO 2011 Regional Progress Report. If you have any questions or comments, please do not hesitate to contact WILMAPCO.



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