REGIONAL GROWTH MANAGEMENT PLAN 2040 UPDATE





Adopted September 28, 2017

Acknowledgements

This RGMP work effort began in 2015 and continues to use the base data and demographic projections that were vetted through the region's municipalities as part of the 2040 HATS Regional Transportation Plan. Use of this data provides a consistent foundation for the RGMP and TCRPC's other planning efforts including the Perry County Comprehensive Plan and Dauphin County Comprehensive Plan, which further provide a resource for the region's municipalities in their planning efforts.

2040 Regional Growth Management Plan Steering Committee

Jack Abiuso – Wells Fargo Advisors Al Beinstock – Hampden Township Andrew Bliss – Capital Region Water Tom Clark – Derry Township Steve Cook – UGI Utilities Shaun Donovan – Harrisburg Regional Chamber/CREDC Larry Hatter – Greater Harrisburg Association of Realtors Jim Hertzler – Cumberland County Commissioner Jeff Kelly – Cumberland County Planning Department John Kerschner – Dauphin County Planning Commission Geoff Knight – TCRPC Representative - Harrisburg City Justin Lehman – PA Department of Health Gary Lenker - Tri-County Housing Development Corp./HBA Fred Lighty – TCRPC At-Large Representative (Dauphin County) Mark McNaughton - PA Builders Association Eric Nagurski – Dauphin County Conservation District Paul Navarro – Hispanic Chamber of Commerce of Central PA Steve Naylor – Perry County Commissioner Jill Pento – PA Builders Association Mike Pries – Dauphin County Commissioner Donna Reinaker - Department of Aging/PA Council on Aging Susan Richards – Capital Resource Conservation & Development Jacqueline Rucker – Christian Churches United of the Tri-County Area Steve Schappe – Penn State Harrisburg Curtis Stambaugh – Sunoco Logistics Rich Stees – TCRPC At-Large Representative (Perry County) Rick Trynoski – Cumberland County Planning Commission Jim Turner – Perry County Planning Commission Angela Watson – PennDOT Tom Wilson – K&W Engineers Lori Yeich – DCNR

Tri-County Regional Planning Commission Staff

Timothy P. Reardon, AICP – Executive Director Diane Myers-Krug, AICP – Associate Director Jason R. Finnerty – Perry County Coordinator Jerry Duke, AICP – Dauphin County Coordinator Andrew Bomberger – Regional Planner Casey Baxendale – Transportation Planner Tom Edinger, AICP – Transportation Planner Steve Deck, AICP – Planner Alexa Korber – Planner Larry Portzline – Communications Coordinator Timothy R. Jones –GIS Technician Patty Buggy – Human Resources/Finance Assistant Donna L. Clay – Administrative Assistant

Tri-County Regional Planning Commission

Officers

Chairman: Jim Turner Vice Chairman: Dan Tunnell Secretary: Tom Graupensperger Treaurer: John Kerschner

Dauphin County

Board of Commissioners: Jeff Haste Planning Commission: John Kerschner, Gary Lenker, Robert Spandler, Dan Tunnell Member-at-Large: Fred Lighty Dauphin Southwest Regional Planning Area: Frank Chlebnikow Dauphin Southeast Regional Planning Area: John Foley Dauphin North Regional Planning Area: Bill Hart

Perry County

Board of Commissioners: Steve Naylor Planning Commission: Tom Fridirici, Tom Graupensperger, Danny Kirk, Jim Turner Member-at-Large: Rich Stees Perry Northeast Regional Planning Area: Frank Campbell Perry West Regional Planning Area: Wes Smith Perry Southeast Regional Planning Area: Bob Rhoades

City of Harrisburg

Harrisburg City Regional Planning Area: Jackie Parker

It should be noted at the end of 2015, Cumberland County discontinued its affiliation with the regional planning program at TCRPC, but still remains part of the transportation planning program and HATS. Therefore, any depiction or reference to Cumberland County in the RGMP should not be interpreted as any type of association with or support for TCRPC's regional planning program, but rather represents the inseparable connection between transportation planning and land use planning. In order to include Cumberland County fully in the regional transportation planning program, it must also be considered in TCRPC's regional land use planning efforts through the RGMP.

Technical support for the scenario planning included in the RGMP was provided by GeoDecisions and Gannett Fleming, Inc.

Table of Contents

Acknowledgments	2
Figure, Table, Map Summary	5
Introduction	6
Regional Issues	8
Policy Statements	12
Land Use	15
Population	19
Housing	26
Commercial and Economic Development	31
Transportation	37
Community Facilities and Services	43
Natural Resources	5 <i>3</i>
Historic Cultural and Scenic Resources	63
Scenario Development	67
PGA/CSA	79
Implementation	85
Appendices	89

Figure List

Figure 1: Regional Planning Areas	6
Figure 2: Avg. "Spending" Per Regional Issue	11
Figure 3: County Population Trends	19
Figure 4: Rate of Population Growth	20
Figure 5: Population Density (2010)	21
Figure 6: Regional Age-Sex Pyramid	22
Figure 7: Dwelling Unit Trends (1970-2010)	27
Figure 8: Housing Affordability	29
Figure 9: Housing + Transportation Affordability	29
Figure 10: Projected Household Growth 30,	69
Figure 11: Location Quotients over 1.00	33
Figure 12: Job Density	34
Figure 13: Projected Employment Growth	34
Figure 14: Employment Capacity Analysis	35
Figure 15: Commuting Patterns	39
Figure 16: Public Sewer Capacity (2010)	44
Figure 17: Excluded Areas	67
Figure 18: Areas Housing Permitted	68
Figure 19: Buildable Lands (Residential)	68
Figure 20: Scenario 4 Municipal Groups	70
Figure 21: PGA Capacity Analysis Results	81
Figure 22: Planned Growth Areas	82

Map List

Map 1: Existing Land Use	17
Map 2: Developed Land	18
Map 3: Regional Transportation Network	41
Map 4: Public Sewer Service Areas	49
Map 5: Public Water Service Areas	50
Map 6: Public Recreation Facilities	51
Map 7: Community Facilities and Services	52
Map 8: Floodplains and Wetlands	57
Map 9: Sensitive Stream Corridors	58
Map 10: Farmland Preservation	59
Map 11: Slope and Karst	60
Map 12: Important Natural Areas	61
Map 13: Historic and Cultural Resources	65
Map 14: Scenario Planning Results Summary	75
Map 15: Scenario 4 Results	76
Map 16: Scenario Growth Accommodation	77
Map 17: Community Service Areas	83
Map 18: Planned Growth Areas	84

Table List

Table 1: Existing Land Use (Region)	15
Table 2: Existing Land Use (County)	16
Table 3: Urban/Rural Population	21
Table 4: Median Age	22
Table 5: Household Income	23
Table 6: Population below Poverty Level	24
Table 7: Projected Population Growth	24
Table 8: Total Housing Units	26
Table 9: Vacancy and Tenure Rates	27
Table 10: Average Household Size	28
Table 11: Householders Living Alone	28
Table 12: Year Structure Built	28
Table 13: Median Housing Value	29
Table 14: Projected Housing Growth	68
Table 15: Employment by Industry	32
Table 16: Location Quotients	32
Table 17: 2012 Agricultural Census Data	33
Table 18: Projected Employment Growth	34
Table 19: Vehicle Miles Traveled	39
Table 20: Regional Park and Recreation Areas	45
Table 21: Future Park Needs	45
Table 22: "Changing" HHs by Scenario	70
Table 23: Performance Measure Matrix	72
Table 24: Performance Measure Ranking	
Outreach Results	72

Appendix List

A: Regional Issues Overview	. 90
B: Regional Growth Projections	. 92
C: Sewer Survey Results (2010)	101
D: Detailed Scenario Results	102

Chapter 1: Introduction

Located in the heart of Central Pennsylvania, the Tri-County Region is home to a diverse array of communities – from urban centers like the City of Harrisburg to rural communities like Toboyne Township. As the seat of government for the Commonwealth of Pennsylvania and an historic inter-modal transportation hub, our region has consistently experienced population growth and economic success for decades. While this prosperity is welcomed by our community leaders, it is important to balance the region's ability to maintain and accommodate growth and progress with the quality of life, residential and commercial development, and environmental preservation desired by our region's residents.

To help our communities achieve this balance, Tri-County Regional Planning Commission is charged with, according to the Articles of Agreement signed in 2015, preparing and implementing "a regional comprehensive plan for the physical development of the region". This Regional Growth Management Plan (RGMP) is a broad plan intended to serve as a foundation for county comprehensive plans, regional transportation plans, and other planning activities to ensure consistency between land use planning and transportation planning.

The Tri-County Regional Planning Commission (TCRPC)

The membership of TCRPC is comprised of County Commissioners, County Planning Commission members, at-large members from each county, and representatives of the Regional Planning Areas, of which there are seven (Figure 1). In total, 19 community members sit on the Commission, which meets every other month.

The functions of TCRPC, as outlined in their Articles of Agreement, include serving as an advisory agency to the rest of the governing bodies of the participating counties, developing and implementing a regional comprehensive plan, working with and providing services to other units of government, private agencies, or individuals in the region, and serving as the lead staff agency for the Harrisburg Area Transportation Study (HATS).

Why Regional Planning Matters



In the decades of regional planning in the Tri-County Region, the need for a coordinated, cooperative, participatory, strategic, and thoughtful planning initiative has never been greater. Inspiring municipal officials and planners, economic development groups, and numerous other stakeholders from our region's communities toward a common vision is an ambitious challenge. However, serving the regional community well, improving regional land use planning, protecting the natural environment and assisting to improve the delivery of services efficiently and in a manner that enhances residents' lives is exactly what TCRPC has been asked to do to continue fulfilling its mission.

As the region continues to grow, the need for housing, jobs, transportation, and other community services also grows. The diverse communities found in the Tri-County Region, ranging from the urban communities like Harrisburg to the rural communities of western Perry County, demand a variety of tools to mitigate the impacts and meeting ever evolving demands of citizens. Our region is at a critical point in its history. Taking a hard, realistic examination of regional development patterns, and their impacts upon

natural resource protection, transportation planning, infrastructure networks, economic development and other public services, is necessary to mitigate the problems facing our region over the next 25 years of development.

Inter-Jurisdictional Cooperation

To successfully bring the regional community together to define development policies and best fulfill its mission, TCRPC must foster cooperation and coordination among the region's municipalities, counties, the Harrisburg Area Transportation Study (HATS), economic development and environmental groups, and other stakeholders. However, when "real world" issues are confronted by different jurisdictions or organizations, competing agendas and responsibilities make finding consensus difficult. TCRPC recognizes it is necessary to identify and address potential issues and conflicts as part of the planning process and include provision for continued cooperation and coordination. As municipalities, counties, and TCRPC collaborate on issues of mutual interest in their respective plans, a general awareness of each jurisdiction's needs and priorities will become much clearer.

For the purposes of the Regional Growth Management Plan, the term "inter-jurisdictional cooperation" is defined as the act of establishing regular means of communication among two or more political or special purpose organizations for the purpose of establishing regional policies and resolving issues of mutual interest related to operations and coordination of future physical development.

Keys to successful inter-jurisdictional cooperation are as follows:

- Foster a cooperative "ethic" among local, county, and regional officials and staff
- Formalize coordination through inter-municipal agreements, committees, and other means
- Formalize inter-jurisdictional goals and strategies in the Regional Growth Management Plan
- Include all municipalities, counties, and other regional partners
- Focus on inter-jurisdictional cooperation early in the planning process

A Plan for the Region

The Regional Growth Management Plan is a functional, "30,000 foot" plan for the region, focusing on guiding physical development to areas in which public investments in infrastructure and services have already been made, as well as protecting and enhancing our natural, cultural, historic, and scenic resources. The studies and analysis contained in the plan and the resulting policy statements will serve as a framework for use by the region's counties and municipal governments in their own plan development. The Pennsylvania Municipalities Planning Code (MPC), Act 247, gives municipalities, not counties or regional entities, the power to manage and regulate land use. Therefore, inter-jurisdictional cooperation is vital to ensure the RGMP fulfills its purpose.

The purpose of the RGMP is to address the broader multi-jurisdictional issues from a regional perspective, to act as an informational resource, and to provide an overarching model for development of more detailed and specific county and municipal comprehensive plans. It is intended to be a plan that ensures the long term sustainability of our region's land use and economic development, for the benefit of our region's citizens, business owners, and visitors.

Chapter 2: Regional Issues

In this update of the Regional Growth Management Plan, TCRPC sought to establish and work to address the most pressing concerns of the region. These regional issues would be addressed through the Regional Growth Management Plan itself and the ongoing implementation effort, TCRPC's regional planning program.

The process began with the RGMP Steering Committee, at their initial meeting, having an open, roundtable discussion about the issues facing our region. This brainstorming session produced more than 30 general ideas, ranging from traditional planning issues like land use patterns, transportation and infrastructure concerns, to more abstract issues not traditionally associated with regional planning, like crime prevention, education improvement, and access to health care. Following this meeting, TCRPC staff crafted these general ideas into 16 regional issues. All 16 Regional Issues can be found in Appendix A.

At the second RGMP Steering Committee, TCRPC staff presented the Regional Issues and led further discussion. Using real time interactive voting software, the Steering Committee prioritized and ranked all 16 Regional Issues, with six separating themselves as the most important. The Top 6 Regional Issues, as determined by the Steering Committee, form the focus of the RGMP and are as follows:

1. Comprehensive Transportation

Transportation planning and investment traditionally focuses on accommodating automobile drivers, often to the detriment of other users. This focus influences and is influenced by regional land use and economic development patterns. Transportation, land use, and economic development plans need to be developed in an integrated manner to generate a system that promotes economic competitiveness and creates safe, healthy, and accessible communities for everyone. The transportation network should serve all users equally and be designed and operated with all users and land uses in mind.



Concerns related to accommodating all modes of travel and all users is critically important to ensure our communities work for everyone, whether they are drivers, transit users, cyclists, pedestrians, or residents with limited mobility. These concerns can be related to programs and policies, like where bus service is provided or whether municipal ordinances require sidewalks be built as part of land development, or the built environment, like the ADA compliance of sidewalks or the presence of bicycle friendly infrastructure.

Issues related to economic development also need to be considered when planning for a comprehensive transportation system. One of the most important industries in the region is warehousing and logistics, which makes maintaining and improving our regional freight capacity absolutely vital. In order to make the most out of significant investments that have already been made, the ability to move goods and services within and through our region must be considered in any planning activity.

As our communities grow older, the long term maintenance costs of the supporting infrastructure increase and our communities lack tools to recoup those costs after development has occurred. Water lines, sanitary and storm sewers, and transportation systems degrade over time, or need to be updated or upgraded to meet current demands or regulatory standards. As communities seek to focus more on redevelopment and infill development, uses of and demands on these existing, aging infrastructure systems increase and these concerns become even greater. Developing tools to help municipalities and government agencies work together to more accurately estimate or anticipate these costs over the life span of the infrastructure can alleviate pressure on both budgets and operations.

Issues regarding our aging transportation system present more potential wide ranging, regional impacts than that of other supporting infrastructure. Disruptions in service of sewer and water service typically have a relatively localized impact, whereas a major disruption or failure of a transportation system or facility can have an immediate regional impact, affecting not only the people, but also the businesses relying on that system or facility. Ensuring the long-term viability of our transportation systems and facilities is especially important to any region, like this one, whose economic health is so closely tied to the proper functioning of those systems and facilities.

This Regional Issue is considered in combination with the next Regional Issues – Infrastructure of the Future – as a collective "Infrastructure" issue.

3. Infrastructure of the Future

Our region's growing communities need infrastructure that can grow and adapt along with them. Traditionally, this meant identifying areas in which service areas for public sewer and public water would be expanded. As will be discussed in this plan, access to public sewer and water service is a primary driving factor in land development decisions, as areas that lack it have limited potential density. Identifying these preferred or anticipated expanded service areas is an important aspect of any planning activity.

Another important yet rarely considered aspect of infrastructure planning is access to electricity. Technological change related to electricity is rapidly advancing, presenting opportunities that could alter how electricity is provided to homes and businesses, as well as expand what the electricity is used for. Advancements in solar, wind, and other alternative fuels offer not just reduced environmental impacts, but opportunities for access to decentralized electricity generation. Additionally, the increase in hybrid and electric powered automobiles will place new demands on the region's powergenerating infrastructure that need to be considered.

As the recent past has shown us, technological advancements can occur very quickly and have a significant impact on our lives. As difficult as it can be, anticipating or accommodating these new, unknown technologies can put the region in an advantageous economic position. This is only possible through a commitment to research and coordination with other important organizations in the region.

2. Aging Infrastructure





This Regional Issue is considered in combination with the previous Regional Issue – Aging Infrastructure – as a collective "Infrastructure" issue.

4. Natural Resource Protection

Our region's natural resources – our rivers and streams, meadows and forests – account for more than 50% of our total land area. Unplanned, low-density, dispersed development threatens to impact these resources and the benefits our region gets from them. Opportunities for infill, redevelopment and compact, contiguous development must be encouraged to ensure development pressure does not impinge unnecessarily on our natural areas and resources.

The concept of natural capital looks at the economic value provided by the goods (like timber production) and services (like flood protection) provided by natural

resources. Including this consideration in the land planning process can lead to more informed decisions on everything from ordinance development to site selection to infrastructure investments. Properly managing and protecting our region's natural resources should not only be looked at as an ecological issue, but also an economic issue.

At the intersection of ecological and economic concerns is farmland preservation. Our region has a rich agricultural heritage, with agricultural production an important economic generator today. In addition to the economic and ecological aspects, farming is inextricably linked to many of our region's communities, providing a sense of place and character that defines our regional landscape. Preserving, and enhancing, our farmland will not only strengthen our region economically and ecologically, but also maintain what helped form us into the region we are today.

5. Inefficient Land Use Patterns

Patterns of development are linked to virtually every land planning issue – from transportation to utilities to natural resources to taxes. Inefficient use of land, often in the form of non-contiguous, low density development makes it difficult to provide services and access daily needs, while increasing the cost of development itself, as well as service provision and maintenance of the supporting physical infrastructure.

Providing an adequate range and mix of housing options, and how those housing

options are connected to our daily needs is also a measure of how efficiently we use land. Our housing stock must continue to evolve to meet the demographic and market demands of the region. We must also identify areas for residential development that enables residents of all ages and income levels to access employment, commercial, educational, and recreational opportunities. Encouraging our communities to embrace contiguous, more dense development accomplishes these goals.

This Regional Issue is considered in combination with the next Regional Issue – Unrealized Potential for Reuse – as a collective "Land Use" issue.





6. Unrealized Potential for Reuse

Too often, municipal regulations and market forces encourage development of "cheaper" (in the short term) land in less densely developed/populated areas, discouraging the use or reuse of land within areas of existing services and infrastructure. These inefficient land use patterns put our older, established communities, where significant investments have been made in the past, at an economic disadvantage, while also increasing the long term provision and maintenance costs for the communities in which the development does occur.



Many of our older communities are feeling the effects of these forces right now,

or will in the very near future. As these communities approach "full build out", growth will not able to be accommodated on available undeveloped land. Developing a variety of tools and regulations that are designed to encourage infill development and redevelopment that takes full advantage of the infrastructure and service investments that have already been made will be absolutely vital to our these communities, and our region as a whole.

This Regional Issue is considered in combination with the previous Regional Issue – Inefficient Land Use Patterns – as a collective "Land Use" issue.

Regional Issue Public Outreach

After establishing the priority Regional Issues, TCRPC staff performed public outreach at the 2015 Harrisburg Business Expo. Participants were given 600 "planning dollars", in six \$100 bills and asked to develop their own implementation budget, based on their own priorities, and deposit their "planning dollars" into boxes corresponding to each of our top 6 Regional Issues according to that budget. If a participant felt all Regional Issues were equally important, they deposited \$100 in each Regional Issue's box. Conversely, if a participant felt only one Regional Issue was important, they deposited all \$600. Figure X.1 shows the results of that outreach. In total, 150 residents participated. The issue that ranked highest was "Aging Infrastructure", with "Inefficient Land Use Patterns" ranking lowest. While the order doesn't perfectly mimic the priorities of the Steering Committee, the three Regional Issues related to physical infrastructure ranked highest, while the three Regional Issues that dealt with policy ranked lowest. The results of this outreach will help TCRPC focus the regional planning program, the implementation effort of the RGMP, in coming years.





Chapter 3: Policy Statements

At its core, planning is a rational process for formulating and meeting goals and objectives. Identifying and articulating broad, regional-level goals and objective is a challenging, yet important task in the development of the RGMP. Working with the Steering Committee and other community leaders, TCRPC staff developed the following policy statements while considering our Regional Issues. These policy statements are intended to provide a direction forward to guide decision making for our community leaders, elected officials, and regional stakeholders, while establishing a framework upon which TCRPC's implementation efforts will be built.

While these policy statements were constructed and classified around its most appropriate corresponding Regional Issue, each goal and objective impacts more than one. To illustrate this interconnected relationship, the icons associated with each Regional Issue are displayed next each broad policy statement category.

Goals: Direction-setting, ideal future conditions toward which objectives are directed. General expressions of sound planning values and practices. Abstract, not quantifiable or time-dependent.

• Objectives: Action oriented policies, standards or principles that establish a time-based commitment to achieving the corresponding goals.



Manage growth toward areas with existing or planned public facilities and services

- Promote development within Community Service Areas (CSAs) and Planned Growth Areas (PGAs) as appropriate
- Promote adoption and implementation of ordinances to meet land use requirements of existing and future residents and businesses

Promote the use of planning best management practices (BMPs)

- Promote municipal coordination of land use planning at multiple levels
- Facilitate participation from the public and private sectors
- Coordinate and disseminate community planning training opportunities

Promote the creation of livable, sustainable communities

- Develop diverse affordable housing options for all ages and economic means in proximity to existing or planned infrastructure, wherever possible
- Promote compact development and redevelopment consistent with applicable plans, policies, and ordinances
- Promote infill development and redevelopment consistent with capacities and planned facilities and services
- Encourage energy and resource efficient development
- Promote community design which accommodates a range of lifestyles, age groups, and working conditions

• Foster land use patterns which promot active living and generate positive health outcomes, including access to recreation, services, food, and a multi-modal transportation network

Promote economic development in conjunction with regional needs

- Determine regional commercial, industrial, and office development needs
- Promote the strategic location and networking of facilities and services
- Support planning decisions and investments which help to retain and attract a more diverse workforce and improve productivity and competitiveness

Transportation



Integrate Land Use and Transportation

- Consider the effects on land use when evaluating and implementing transportation improvements
- Consider the current and future transportation system, including long-term maintenance costs, when making land use decisions
- Encourage land use decisions which support and complement the goals and objectives of the HATS Regional Transportation Plan

Expand transportation choices

- Channel transportation funds toward alternate modes
- Increase transit ridership and carpooling
- Facilitate increased travel by bicycle and pedestrian modes
- Encourage innovative transit solutions to transportation issues including bus rapid transit (BRT), light/commuter rail and ITS upgrades

Improve quality of life, promote human health and provide a safe experience for all users

- Encourage context sensitive design (aesthetics, urban design, and environmental stewardship) in transportation and greenway corridors
- Promote a full range of transportation choices concurrent with development
- Support development of adequate facilities to link different modes of transportation and connect developed areas

Natural, Historic, and Cultural Resources



Protect, preserve, and conserve the region's natural resources

Promote the protection of environmentally sensitive areas
 Promote the protection of water quality and quantity

- Promote the protection of air quality
- Protect, preserve, and conserve agricultural land and open space/greenways

Protect, preserve, and conserve the region's historic, cultural, and scenic resources

- Promote the designation of historic buildings, districts, and corridors
- Promote the cultural and historic character of individual communities
- Protect the integrity of the region's scenic resources

Infrastructure



Encourage provision of an adequate amount and mix of safe and sustainable utility facilities and services

- Facilitate development and connection of utility facilities and services to accommodate existing and projected population through the year 2040
- Promote the update of municipal utility plans and development of multi-municipal utility plans
- Encourage the use of and planning for "green infrastructure" and other clean, efficient innovations
- Integrate utilities planning and land use planning

Provide an adequate amount of community services and facilities

- Provide public safety facilities and services as needed to serve existing and projected development
- Provide civil institutions and services as needed to serve existing and projected development
 Support the development of connected greenspaces, recreational areas, and trails

Chapter 4: Land Use

At its most basic element, regional growth management is an examination of changing land use patterns. Naturally, establishing a baseline of existing land use patterns is an important step in this process. Beyond the RGMP, accurate land use data is useful for other planning efforts, from county and municipal comprehensive plans to the HATS Regional Transportation Plan.

Existing Land Use and Regional Growth Management

Developing existing land use data has been an important part of every RMGP, beginning with TCRPC's initial effort in 1997. The 2003 RGMP utilized tax parcel information to determine existing land use at a regional level. As part of the most recent RGMP, adopted in 2011, a new baseline of land use/land cover data was developed using the Anderson Level II classification system, a methodology established by the United States Geological Survey (USGS). Using GIS analysis of a combination of existing land use data, aerial photography, and parcel data, the Anderson layer is used to track, predict, and model changes to the land use/land cover resulting from development and transportation improvements.

One of the first steps of this RGMP update was revising the existing land use/land cover data of the entire region. Because the 2011 RGMP included land use/land cover developed according to the Anderson methodology, we will be able to better identify changes in land use patterns and perform meaningful analysis based on those changes.

Existing Land Use Study Results

While the updated land use/land cover data classifies our region's entire 1,074,077 acreage into 30 different categories, those have been condensed into the following more general land use categories for the purposes of this RGMP:

- Residential and Farmsteads
- Commercial and Services
- Industrial and Industrial/Commercial complexes
- Transportation and utilities
- Institutional
- Recreational
- Agricultural
- Natural Resources

Table 1 shows the regional summary of the updated existing land use data. The majority of our region (about 54%) is made up of land designated under the "Natural Resource" designation. The second largest land use category is "Agriculture", at about 28%. Considering both natural resources and agriculture, about 82% of our region

Table 1: Existing Land Use (Region)							
Generalized Land Use Category	Acres	Percent of Region					
Residential and Farmsteads	118,123	11.00%					
Commerical and Services	13,877	1.29%					
Industrial	8,084	0.75%					
Transportation and Utlities	31,291	2.91%					
Institutional	11,704	1.09%					
Recreational	8,405	0.78%					
Agricultural	298,271	27.77%					
Natural Resource	584,321	54.40%					
Total	1,074,077						

Source: TCRPC GIS

remains undeveloped. The third largest land use category, and the largest "developed land" category, is "Residential and Farmsteads", at 11%. This is consistent with historic regional and national trends. In total, approximately 18%, or about 190,000 acres, of the Tri-County region is developed.

Table 2 - Existing Land Use (County)									
	Cumberla	nd County	Dauphir	n County	Perry	County			
Generalized Land Use Category	Acres	Percent of County	Acres	Percent of County	Acres	Percent of County			
Residential and Farmsteads	52,134	14.7%	42,967	12.0%	22,867	6.3%			
Commerical and Services	5,694	1.6%	7,026	2.0%	1,111	0.3%			
Industrial	4,878	1.4%	3,043	0.9%	141	0.0%			
Transportation and Utlities	11,917	3.4%	13,915	3.9%	5,393	1.5%			
Institutional	4,839	1.4%	5,841	1.6%	988	0.3%			
Recreational	3,144	0.9%	4,173	1.2%	1,064	0.3%			
Agricultural	129,055	36.3%	80,855	22.6%	88,403	24.5%			
Natural Resource	144,035	40.5%	199,261	55.8%	241,334	66.8%			
Total	355,696		357,081		361,301				

Source: TCRPC GIS

Table 2 shows a more detailed, county-level breakdown of the updated existing land use data. Several notable trends are apparent, chief among them being the relationship "Residential and Farmstead" land uses and population. Cumberland County, despite having (according to the 2010 Census) only about 12% fewer residents than Dauphin County, has almost 9,000 more acres designated "Residential and Farmstead" than Dauphin County. Similarly, Perry County, despite having almost 80% fewer residents than Dauphin County, has more than 50% of the land area designated "Residential and Farmstead". This provides a clear indication that Dauphin County is the Tri-County Region's most densely residentially developed County.

Also illustrated in the county break down of the existing land use data is the prevalence of Agriculture land uses in Cumberland County, which is the largest non-Natural Resource designation in the region. Perry County has only 0.3% of land uses designated "Commercial and Services", the lowest in the region, while Dauphin County, as the region's employment leader, has the largest area of land designated "Commercial and Services". Cumberland County, on the other hand, is the regional leader in "Industrial" land uses, most likely due to its warehousing and logistics industry.

Map 1 graphically illustrates the updated existing land use data. Map 2 graphically illustrates the developed land according to the updated land use data, with changes since 2010 highlighted.

Conclusion

The land uses of the Tri-County Region are well established, giving each county a distinct character. Dauphin County is home to our highest concentration of both jobs and residents, Cumberland County has an abundance of agricultural land, and Perry County has significantly less developed land in general. However, any existing land use analysis is only a snapshot in time. Land uses and land cover are constantly changing. This should be considered as this data is used in planning studies, including county and municipal comprehensive plans. By incorporating accurate consistent data into our planning efforts, we can better track past changes and anticipate future changes and its impacts.





Chapter 5: Population

Effective growth management/planning depends on establishing an accurate picture of the present and future population characteristics, trends, and projections. The primary purpose of this section is to compile and analyze a wide variety of data for use by TCRPC in developing the Regional Growth Management Plan, while also providing a consistent, common base for the member counties, municipalities, HATS, other agencies in the region, and private sector organizations to use in the their planning activities.

Like the other projections in the RGMP, the primary data source for the population projections is the Pennsylvania State Data Center (PASDC), our local affiliate of the US Census Bureau. Based on analysis of 2010 Decennial Census data, the county level population, household, and employment provided by the PASDC were broken down to the municipal level as part of the most recent update of the HATS Regional Transportation Plan. These projections are used as the baseline for all planning activities conducted by TCPRC and HATS staff, including the Regional Growth Management Plan, Regional Transportation Plan, Congestion Management Plan, and county comprehensive plans.

Population and Regional Growth Management

Population trends, and changes in them, affect land use and development patterns. Over the long term, understanding these trends is integral in managing the growth of a community or region. As TCRPC seeks to identify the most appropriate areas for development, the amount of land needed to accommodate growth in population, households, and employment, and the facilities and services that support it, will depend on the rate at which the region is expected to grow through year 2040.

Population Size

Our region has experienced consistent growth since the population statistics began being recorded in the early 1800's . Figure 3 displays the population total through the years of our region's counties. Since 1820, the regional population has increased nearly 1000%, from 56,601 to 549,475 according to the 2010 Census. This rate of growth is similar to that of Pennsylvania, which increased from 1,049,458 in 1820 to 12,702,379 in 2010.





There are distinct differences between the historic growth patterns of Dauphin, Cumberland and Perry Counties. Since the middle of the 19th century, Dauphin County has been the county with the largest population in the region. However, in the past few decades, since the middle of the 20th century, Cumberland County has been the fastest growing county. In 1950, Dauphin County had more than 100,000 more residents than Cumberland County. By 2000, Dauphin County only had approximately 35,000 more residents. Perry County, on the other hand, has experienced comparatively little population growth over the past 150 years, growing by 25,000 people since 1860.

In addition to the differences between the counties, there is a wide variation in the size, density, and growth among municipalities, both throughout the region, and within each county. Dauphin County is home to our region's two highest population municipalities, according to the 2010 Census – the City of Harrisburg (49,528) and Lower Paxton Township (47,360). The municipality with the smallest population, according to the 2010 Census, is Cooke Township (179) in Cumberland County. Generally, the municipalities with highest populations are located around the City of Harrisburg, while the municipalities with the lowest populations are rural boroughs. A comprehensive listing of 2010 municipal population totals can be found in the population projections in Appendix B.





Rate of Growth

As shown in Figure 4, the historic rates of growth have been generally consistent throughout the region, with the exception of Perry County. As the most populous county for more than 150 years, Dauphin County's growth rate best mirrors both the Tri-County Region's growth rate and Pennsylvania's growth rate. Cumberland County, as shown in the data, experienced an almost unprecedented spike in growth rates in the middle of the 20th century, only to revert back to rates of growth generally consistent with the region as a whole. Perry County experienced a surge in growth in the 1980s and 1990s, only to revert back to regional growth rates, as well.

Population Distribution

The trends related to the distribution of population in the region are complicated. Generally, our region,

as well as the United States as a whole, are becoming more and more urbanized. Conversely, many of our centralized population centers, like cities and boroughs, have been experiencing population loss. In 1950, the regional population was centered around the City of Harrisburg, whose population of 89,544 accounted for 28% of our regional total. Overall in 1950, about 62% of our regional population resided in cities and boroughs, with the rest distributed throughout the yet-to-emerge suburbs and rural areas.

Since 1950, however, a dramatic shift has occurred. Like most of the United States, the population of our region began to move out of our cities and boroughs, and into our suburban municipalities, a trend made possible by significant investment and improvement in our transportation network, and the interstate system in particular, as well as federal policies in mortgage lending. From 1950 to 1970, our regional population grew by 93,603, or nearly 30%, yet the population of our cities and boroughs decreased by more approximately 12,000 people, or 6%, with Harrisburg alone losing more than 21,000 residents. Our region's city and borough population in 1970 accounted for only 45.5% of the regional total. These trends continued throughout the 20th century, and by 2010, only 28% of our regional population lived in cities and boroughs, and the City of Harrisburg, which just 60 years earlier accounted for 28%, now accounted for just 9% of our total regional population.

As our cities and boroughs lost population, our suburban communities gained. Municipalities adjacent to our declining cities and boroughs were often the direct beneficiaries. In Dauphin County, Lower Paxton Township's population increased from 6,546 in 1950 to 47,360 in 2010 and Derry Township's population grew from 9,993 in 1950 to 24,679 in 2010. In Cumberland County, Hampden Township's population increased from 2,095 in 1950 to 28,044 in 2010 and Upper Allen Township's population grew from 1,594 in 1950 to 18,059 in 2010. In Perry County, which experienced relatively little suburban growth, Carroll Township's population increased from 1,287 in 1950 to 5,269 in 2010.

Table 3: Urban/Rural Population									
	Total Population	Urban	% Urban	Within Urban Areas	Inside Urban Clusters	Rural	% Rural		
Cumberland	235,406	183,198	77.82%	165,909	17,289	52,208	22.18%		
Dauphin	268,100	232,380	86.68%	222,771	9,609	35,720	13.32%		
Perry	45,969	5,956	12.96%	3,012	2,944	37,646	81.89%		
Region	549,475	421,534	76.72%	391,692	29,842	125,574	22.85%		

While the shift away from dense urban centers and boroughs is apparent, US Census data also shows that we remain a decidedly "urbanized" region. As shown in Table 3, approximately 76% of our regional population resides in a designated urban area, with Dauphin and Cumberland Counties having significantly higher percentages than Perry County. The US Census Bureau definition of "urban" has changed over time, making comparisons to historical data problematic. For the 2010 Census, "urban" is defined as "a densely settled core of census tracts and/or blocks that meet minimum population density requirements, along with adjacent territory containing non-residential urban land uses as well as territory with low population density included to link outlying densely settled

Source: US Census Bureau, 2010



Figure 5: Population Density (2010)

territory with the densely settled core". Additionally, urban areas are designations with more than 50,000 people, while urban clusters are designations with more than 2,500 but less than 50,000. Figure 5 shows the population distribution and density according to the 2010 Census.

Demographics

Statistics such as age, racial composition, sex, and income are important elements in land use planning and growth management. The trends these statistics measure can have a profound impact on birth rates, population growth, and housing choice. While more detailed examinations are typically included as part of county and municipal comprehensive plans, it is important to provide a regional picture on those relevant to regional planning and the RGMP.

Age Trends

The general age of the population is a driving factor for many land use decisions. Areas with aging populations have needs distinctly different than areas with significantly younger populations. Examining historic age statistics, the most apparent trend is the general aging of our regional population, brought on by the baby boom generation. According US Census data, in 1980, approximately 11.6% of the regional population was age 65 years or older, while in 2010, approximately 14.5% the regional population was age 65 years or older. With the oldest baby boomers just entering their early 70s and the youngest baby boomers entering their mid 50s, this trend continuing to increase while impacting our region for decades to come.



Figure 6 shows our regional age-sex pyramid, illustrating the age distribution of our population, according to 2010

Census data. Because the analysis was done using 2010 data, the ages corresponding to baby boomers is 46 to 64. Figure 6 shows a significant "hump" in those corresponding age cohorts. This indicates the general aging of our population will continue for the next few decades, as those currently in their late 40s to early 60s progress into their late 60s to early 80s.

As seen in Table 4, the median age has been steadily increasing for the past 50 years. It is worth nothing that Perry County, which was our "youngest" county in the region according to 2000 census data, has now, according to 2010 census data, become our region's county with the highest median age, which is a higher median age than Pennsylvania as a whole.

Gender Composition

Referring back to Figure 6, it is apparent that females outnumber males in the region, especially as ages increase. According to 2010 Census data, Cumberland County has 96.5 male per 100 female residents, Dauphin County has 93.6 male per 100 female residents, and Perry County has 100.6 male per 100 female residents.

Table 4: Median Age									
	1960 1970 1980 1990 2000 2010								
Cumberland	29.2	28.0	31.2	34.6	38.1	40.3			
Dauphin	32.6	31.9	32.0	35.0	37.9	39.4			
Perry 29.2 29.2 30.0 33.4 37.5 41.3									
Pennsylvania	32.0	30.7	32.1	35.0	38.0	40.1			

Figure 6: Regional Age-Sex Pyramid (2010)

Source: US Census Bureau, 2010

Racial Composition

Racial and ethnic composition can have a significant impact on planning efforts at all levels. Of particular concern are issues of environmental justice and limited English proficiency. Understanding the racial and ethnic composition of our regional communities is crucial to addressing the unique concerns of these populations.

According to the 2010 Census, overall, the region is approximately 82.5% white and 10.2% black, with all other racial designations comprising no more than 2.9% of the population. However, the racial composition of the Tri-County Region varies based on county. Dauphin County is has the highest non-white population in region at 73,190, or about 27%. The vast majority, nearly two-thirds, of the non-white population is categorized as black. Perry County has significantly lower non-white populations, approximately 2.6%.

The designation of Hispanic or Latino is not, according to the US Census Bureau, considered a racial designation, but an ethnic designation. Overall, our region's Hispanic or Latino population, 25,831 residents, makes up approximately 4.7% of the regional population. Of those, 18,795 are Dauphin County residents. This population accounts for approximately 7% of the total Dauphin County population, while Perry County (1.28%) has significantly lower Hispanic or Latino populations.

Income and Poverty

	Table 5: Household Income (2015)									
	Cumberland	Dauphin	Perry	Pennsylvania						
Total	95,950	109,623	18,085	4,958,859						
Less than \$10,000	4.1%	6.6%	3.8%	6.9%						
\$10,000 to \$14,999	3.6%	4.3%	4.1%	5.3%						
\$15,000 to \$24,999	8.8%	9.6%	9.2%	10.7%						
\$25,000 to \$34,999	9.4%	10.9%	9.2%	10.3%						
\$35,000 to \$49,999	13.6%	14.6%	16.5%	13.5%						
\$50,000 to \$74,999	20.4%	20.0%	23.0%	18.4%						
\$75,000 to \$99,999	14.6%	13.0%	15.8%	12.5%						
\$100,000 to \$149,999	15.5%	12.9%	12.6%	13.0%						
\$150,000 to \$199,999	5.5%	4.3%	3.5%	4.8%						
\$200,000 or more	4.7%	3.9%	2.2%	4.6%						
Median income (dollars)	61,820	53,754	57,177	53,599						

Income and poverty are directly related to the economic development of our region, as these factors influence consumer decisions, housing choice, job access, and transportation options.

Source: 2011-2015 American Community Survey 5-year estimates

Table 5 illustrates the household income statistics across our counties, according to the 2015 American Community Survey data. All counties in the region have median incomes higher than that of Pennsylvania. The largest income bracket is the \$50,000 to \$74,999 bracket. Additionally, all counties have seen their median incomes increase since 2000. Dauphin County is the region's county with both the lowest median income and the highest percentages in each income bracket under \$35,000, although these statistics are still higher (median income) or lower (percentages in low income brackets) than Pennsylvania as a whole.

Table 6 illustrates our region's poverty data, according to the 2015 American Community Survey data. Overall, 11.2% of our region's population is considered to be below the poverty level. Dauphin County has the highest percentage at 13.6% Across the counties, as the groups increase in age, the percentage below poverty level decreases.

	Table 6: Population below poverty level (2015)									
	Cumberland		Dau	Dauphin		Perry		ounty ion		
Total	19,984	8.8%	36,269	13.6%	4,217	9.4%	60,470	11.2%		
Under 18 years	5,922	12.2%	12,109	20.1%	1,333	13.6%	19,364	16.3%		
Under 5 years	2,049	16.1%	4,077	24.7%	483	18.7%	6,609	20.8%		
5 to 17 years	3,873	10.8%	8,032	18.3%	850	11.7%	12,755	14.7%		
18 to 64 years	12,279	8.7%	21,542	12.9%	2,426	8.5%	36,247	10.8%		
18 to 34 years	7,168	15.5%	10,345	17.8%	1,129	13.1%	18,642	16.5%		
35 to 64 years	5,111	5.4%	11,197	10.2%	1,297	6.5%	17,605	7.9%		
65 years and over	1,783	4.6%	2,618	6.7%	458	6.8%	4,859	5.8%		

Source: 2011-2015 American Community Survey 5-year estimates

Forecasting Population Growth

According to our regional projections, which can be seen on Table 7, our region will add approximately 78,000 new residents through the year 2040, representing a growth rate of 14.2%. Dauphin and Perry Counties are projected to grow at similar rates, 10.7% and 9.2% respectively.

Table 7: Projected Population Growth									
	2010	2020	2030	2040	Total Growth	Percentage Growth			
Cumberland	235,406	251,836	268,063	280,505	45,099	19.2%			
Dauphin	268,100	279,506	289,132	296,766	28,666	10.7%			
Perry	45,969	48,597	50,348	50,198	4,229	9.2%			
Tri-County Region	549,475	579,939	607,543	627,469	77,994	14.2%			

Source: TCRPC & US Census Bureau, 2010

In addition to the county-level projections, TCRPC established municipal level population projections for the transportation planning area, which can be viewed in Appendix B. Lower Paxton Township has the highest projected population growth, at 7,870. In fact, by 2020, Lower Paxton Township is projected to pass the City of Harrisburg as the municipality with the highest population. The next four highest-ranked municipalities are Hampden Township (6,749), Upper Allen Township (4,688), Silver Spring Township (4,198), and East Pennsboro Township (3,686). All four of these municipalities are contiguous, located in the eastern portion of Cumberland County, illustrating the tremendous development pressure we project for that area.

Conclusion

Population growth is a critical component to any regional growth management effort. Understanding population change is necessary to anticipate and plan for future housing and commercial demand, land requirements for future residential and commercial development, as well as transportation trends, community facility needs, and potential impacts on our region's natural resources. Understanding the past, present, and future characteristics of our regional population is critical to planning for the future. The projections discussed throughout the RGMP form the basis for the Planned Growth Areas and Community Service Areas, as well as HATS transportation planning studies, and county and municipal plans. Our region has experienced consistent growth in the past, and we project that will continue.

Chapter 6: Housing

Like population and economic development, establishing an accurate picture of the present and future housing characteristics, trends, and projections is integral to any planning effort, and growth management in particular. The purpose of this chapter is to compile and analyze a wide variety of housing data for the region, relevant to regional growth management and the establishment of the Planned Growth Areas, while providing a consistent, common base for the member counties, municipalities, HATS, other agencies in the region, and private sector organizations to use in their planning activities.

Tri-County Regional Planning Commission is strategically positioned to assist the region's counties and municipalities in their efforts to guide and plan for housing or residential development. Through review of land development proposals, ordinance creation/revision, and work with regional partners – including our region's various Chambers of Commerce, Councils of Governments, and Economic Development Corporations, the Commission uses a regional lens to encourage and help guide good housing development decisions.

Like the other projections in the RGMP, the primary data source for the housing projections is the Pennsylvania State Data Center (PASDC), our local US Census Bureau affiliate. Based on analysis of the 2010 Decennial Census, the county level projections were broken down to the municipal level by TCRPC as part of the most recent update of the HATS Regional Transportation Plan. These projections serve as a baseline for all planning activities conducted by TCRPC and HATS staff, including the Regional Growth Management Plan, Regional Transportation Plan, Congestion Management Plan, and the county comprehensive plans.

Housing and Regional Growth Management

Housing trends, and changes in them, affect land use and development patterns. Over the long term, understanding these trends is integral in managing the growth of a community or region. As TCRPC seeks to identify the most appropriate areas for development, the amount of land needed to accommodate growth in population, households, and employment, and the facilities and services that support it, will depend on the rate at which the region is expected to grow through the year 2040.

	Table 8: Total Housing Units									
	Cumberland		Dau	Dauphin		Perry		Region		
	Housing Units	Percent Change	Housing Units	Percent Change	Housing Units	Percent Change	Housing Units	Percent Change		
1970	49,656	-	78,971	-	9,313	-	137,940	-		
1980	66,012	32.94%	95,728	21.22%	14,784	58.75%	176,524	27.97%		
1990	77,012	16.91%	102,684	7.27%	17,063	15.42%	196,759	11.52%		
2000	86,951	12.77%	111,133	8.23%	18,941	11.01%	217,025	10.25%		
2010	99,988	14.99%	120,406	8.34%	20,424	7.83%	240,818	10.96%		

Source: US Census Bureau, 2010

Housing Inventory

Mirroring the consistent growth in population, the region's housing stock has grown consistently as far back as our census data goes. As of the 2010 Census, the region's housing stock had a total of 240,818 units, which represented a growth rate of 10.96% since the 2000 Census. Compared to Pennsylvania as a whole, which had a growth rate of only 6.05%, the region is growing much faster.



Figure 7: Dwelling Unit Trends (1970-2010)

Because housing trends are so closely linked to population trends, many of the distinct historic population patterns observed between our region's counties apply to housing as well. Table 8 and Figure 7 display the housing units for each county, since 1970. Dauphin County has consistently had the most housing units in the region, followed by Cumberland County, with Perry County having significantly fewer than the others. While Dauphin County has had more housing units at every interval since 1970, Cumberland County has had a higher growth rate at every interval since 1970.

In addition to the differences in our region's counties, there is a wide variation in the housing unit growth among municipalities, both throughout the region, and within each county. Again mirroring the population patterns, Dauphin County is home to our region's two municipalities with the most housing units, according to the 2010 Census – the City of Harrisburg (20,605) and Lower Paxton Township (20,085). The region's municipality with the fewest housing units is New Buffalo Borough in Perry County. Generally, the municipalities with the most housing units are located around the City of Harrisburg, while the municipalities with the fewest are rural boroughs. A comprehensive listing of municipal housing unit totals can be found in the housing projections in Appendix B.

Table 9: Vacancy and Tenure Rates									
	% Owner Occupied	% Renter Occupied	% Occupied	% Vacant	% Vacant for seasonal, recreational, or occasional use				
Cumberland	67.61%	26.34%	93.95%	6.05%	0.85%				
Dauphin	59.37%	32.34%	91.72%	8.28%	0.67%				
Perry	69.58%	18.08%	87.66%	12.34%	6.78%				
Region	63.66%	28.64%	92.30%	7.70%	1.26%				

Source: US Census Bureau, 2010

Table 9 illustrates the vacancy and tenure rates, according to the 2010 Census. The overall regional vacancy rate was 7.70%, which was lower than the vacancy rate for both Dauphin and Perry Counties. Perry County had a significantly higher vacancy rate than both Dauphin and Cumberland County. This can be explained by Perry County's high percentage of vacant housing units attributed to seasonal, recreational, or occasional use housing units. After removing these units from the equation, Dauphin

County had the highest percentage of vacancy in the region. Additionally, Dauphin County had the highest percentage of renter-occupied housing units (32.34%), while Perry County had the lowest (18.08%). This can be attributed to the City of Harrisburg, which by itself, accounted for about 18% of the region's renter-occupied housing units.

Average Household Size

Average household size has a profound impact on growth management and land use planning. As the average household size decreases, more housing units will be needed to accommodate projected growth, and consume more land. Table 10 shows the county statistics for average household size since 1990. Over this 20 year period, the regional average household size decreased from 2.50 to 2.38, or 4.57%. Perry County had the largest decrease with 6.96%, while Dauphin County had the smallest decrease with 3.27%. A primary driver of this phenomenon is the increase in householders living alone, as shown in Table 11. In 1990, 25.8% of households in the region

Table 10: Average Household Size							
	1990 2000		2010	Percent Change			
Cumberland	2.51	2.40	2.37	-5.58%			
Dauphin	2.45	2.39	2.37	-3.27%			
Perry	2.73	2.58	2.54	-6.96%			
Region	2.50	2.41	2.38	-4.57%			

Source: US Census Bureau, 2010

Table 11: Householders Living Alone						
	1990	2000	2010			
Cumberland	24.2%	26.7%	28.2%			
Dauphin	28.4%	30.0%	31.2%			
Perry	18.4%	21.7%	23.0%			
Region	29.3%					

Source: US Census Bureau, 2010

were occupied by a single person. By 2010, that number had increased 29.3%. In 1990, 2000, and 2010, Dauphin County had the highest percentage of householders living alone, followed closely by Cumberland County, with Perry County significantly lower.

Age of Dwelling Structure

Another important consideration in the overall condition of our region's housing stock is the age of the dwelling unit. Generally speaking, as a structure ages, its maintenance and repair costs increase. The region's data for age of structure is shown in Table 12. The majority of our region's housing stock (50.6%) has been built since 1970. Dauphin County has the most housing units in structures built before 1970, due to the predominance of older structures in the City of Harrisburg. Conversely, Cumberland County has the most housing units, and highest percentage, built since 1980, confirming they've been consistently growing at a faster rate than Dauphin and Perry Counties.

	Table 12: Year Structure Built								
	Cumberland	Dauphin	Perry	Region	Percent of Region				
1939 or earlier	16,840	27,972	5,076	49,888	20.44%				
1940-1949	5,145	7,645	796	13,586	5.57%				
1950-1959	11,495	18,106	1,528	31,129	12.75%				
1960-1969	11,475	13,006	1,492	25,973	10.64%				
1970-1979	15,335	16,679	3,611	35,625	14.59%				
1980-1989	13,085	13,025	3,015	29,125	11.93%				
1990-1999	13,411	13,803	2,795	30,009	12.29%				
2000-2009	13,120	9,949	1,898	24,967	10.23%				
2010 or later	2,140	1,361	302	3,803	1.56%				

Source: 2011-2015 American Community Survey 5-year estimates

Value and Housing Affordability

The value and affordability of housing is an issue that, while hard to definitively measure and address, is nonetheless vitally important to growth management and land use planning. The median home value and contract rent is shown in Table 13. Cumberland County shows a higher median home value than both Dauphin and Perry Counties. Cumberland County also has the highest median contract rent. While Dauphin and Perry County have very similar median home values, Perry County has a significantly lower median contract rent.

Housing is traditionally considered "affordable" if it costs 30% or less of the household income. However, this traditional approach does not account for the transportation costs associated with housing choice. When combined, housing and transportation costs are considered "affordable" when they account for less than 45% of the household income. Figures 8 and 9 show the results of the H+T Affordability Index, a web-based tool provided by the Center for Neighborhood Technology, which uses census tract data to analyze the cost impacts placed on a typical household. Figure 8 shows housing affordability, while Figure 9 shows the combined housing and transportation affordability. Housing affordability is an issue for a typical household primarily in eastern and central Cumberland County and southern Dauphin County. When transportation costs are considered, virtually the entire region is considered "unaffordable", with costs exceeding 45% of the median income. Some areas still considered affordable are in and around our regional population centers, illustrating the importance of connectivity, or location efficiency, between residential and employment facilities, and how those factors influence the economic health and quality of life in the region.

Table 13: Median Housing Value, by occupant					
	Owner Occupied Housing Units	Renter Occupied Contract Rent			
Cumberland	\$188,400	\$732			
Dauphin \$159,200		\$703			
Perry	\$159,900	\$548			

Source: 2011-2015 American Community Survey 5-year estimates

Figure 8: Housing Affordability



Source: Center for Neighborhood Technology

Figure 9: Housing + Transportation Affordability



Source: Center for Neighborhood Technology

Forecasting Housing Growth

According to our regional projections, which can be seen on Table 14, our region will add 32,425 housing units through the year 2040, representing a growth rate of 14.6%. Cumberland County is projected to grow at a rate (20.0%) significantly higher than either Dauphin County (10.9%) or Perry County (9.3%). Based on these projections, Cumberland County's growth will account for nearly 58% of the region's total projected growth. Referencing back to Table 7, we see that all of the counties' projected housing growth is slightly higher than its projected population growth. This is indicative of our region's average household size continuing to decrease, meaning our housing growth will outpace our population growth.

In addition to the county-level projections, municipal projections were developed, which are displayed graphically in Figure 10 and can be viewed in their entirety in Appendix B. Like the trends seen in population growth, the municipalities projected to add the most housing units are Lower Paxton Township (3,362), Hampden Township (2,771), Upper Allen Township (2,009), Silver Spring Township (1,712), and Susquehanna Township (which, at 1,572, has one more household projected than East Pennsboro Township). The municipalities in which the most growth is expected to occur are located in the immediate vicinity of the City of Harrisburg in Dauphin County and in the eastern portion of Cumberland County.

Figure 10: Projected Household Growth



Source: TCRPC & US Census Bureau, 2010

Table 14: Projected Housing Growth								
	2010	2020	2030	2040	Total Growth	Percentage Growth		
Cumberland	93,943	100,782	107,533	112,707	18,764	20.0%		
Dauphin	110,435	115,199	119,241	122,436	12,001	10.9%		
Perry	17,903	18,934	19,623	19,563	1,660	9.3%		
Tri-County Region	222,281	234,915	246,397	254,706	32,425	14.6%		

Source: TCRPC & US Census Bureau, 2010

Conclusion

Because housing growth is so closely linked to population growth, the benefits of and need for one also applies to the other. Like population change, understanding housing growth patterns is necessary to anticipate and plan for future housing and commercial demand, land requirements for future residential and commercial development, as well as transportation trends, community facility needs, and potential impacts on our region's natural resources. The projections discussed throughout the RGMP form the basis for the Planned Growth Areas and Community Service Areas, as well as HATS transportation planning studies, and county and municipal plans. With this consistent baseline of data, TCRPC can better coordinate land use and transportation decision making.

Chapter 7: Commercial and Economic Development

Commercial and economic development is one of the defining factors of any region, shaping land use, transportation, and infrastructure decisions. From the Capital Complex in the City of Harrisburg to the warehouse clusters of Cumberland County, the Tri-County Region is home to a variety of size and types of commercial development including retail, office centers, and industrial. Focusing on planning will enable regional growth in population and employment to be accommodated, while providing a stable, innovative environment with minimal redundancy in commercial development. Understanding the commercial needs of the region will help delineate where commercial development is needed and where commercial markets are saturated, ensuring a strong commercial core for the region's future.

Tri-County Regional Planning Commission is strategically positioned to assist the region's counties and municipalities in their efforts to guide and plan for commercial and economic development. Through review of land development proposals, ordinance creation/revision, and work with regional partners – including our region's various Chambers of Commerce, Councils of Governments, and Economic Development Corporations, the Commission uses a regional lens to encourage and help guide good commercial and economic development decisions.

Commercial and Economic Development and Regional Growth Management

The purpose of this commercial and economic development overview is to provide a high-level picture of the existing commercial development and discuss the broad future needs of the region. By better incorporating commercial and economic development into the projections and scenarios discussed throughout the RGMP, we can better understand where our employment centers are, where we should encourage them in future, and how to best provide them the services and support they require.

Current Regional Employment

According to the 2016 data from the US Bureau of Labor Statistics, the region is home to approximately 320,000 jobs, as shown in Table 15. Dauphin County accounts for nearly 180,000 jobs, or about 56% of the regional total, with Cumberland County accounting for approximately 132,000 jobs or about 41.2% of the regional total. Perry County is significantly lower than both, with 7,828 jobs, or about 2.4% of the regional total.

Looking at the specific industries, Health Care and Social Assistance employs the highest number of people in the region, illustrating the importance of our health care facilities to our region's economy. Other industries with high employment totals include Retail Trade, Public Administration, and Transportation and Warehousing. Collectively, these top 4 industries account for nearly 45% of our region's total employment.

In addition to looking at the totals for each industry, TCRPC also calculated the location quotient for each at both the county and regional level. Location quotient measures the strength of an industry in a county or region compared to that industry at the state-level. Any industry with a location quotient higher than 1.00 means that industry accounts for a larger percentage of jobs at the county or regional level than it does at the state level. The higher the number, the higher the percentage and the relative strength or importance of the industry.

Table 15: Employment by Industry							
	Cumberland	Dauphin	Perry	Region	% of Region		
Agriculture, Forestry, Fishing and Hunting	335	263	216	814	0.25%		
Mining, Quarrying, and Oil & Gas	87	49	ND	136	0.04%		
Utilities	193	1,211	ND	1,404	0.44%		
Construction	4,288	5,365	656	10,309	3.22%		
Manufacturing	8,596	12,203	461	21,260	6.65%		
Wholesale Trade	3,552	6,855	117	10,524	3.29%		
Retail Trade	16,160	14,746	1,165	32,071	10.03%		
Transportation and Warehousing	16,434	10,996	1,021	28,451	8.90%		
Information	1,627	2,066	31	3,724	1.16%		
Finance and Insurance	7,403	11,808	268	19,479	6.09%		
Real Estate and Rental and Leasing	1,459	1,467	43	2,969	0.93%		
Professional and Technical Services	8,264	7,301	191	15,756	4.93%		
Management of Companies and Enterprises	4,558	3,965	ND	8,523	2.67%		
Administrative and Waste Services	10,401	9,924	154	20,479	6.40%		
Educational Services	8,941	11,851	977	21,769	6.81%		
Health Care and Social Assistance	16,572	29,865	1,079	47,516	14.86%		
Arts, Entertainment, and Recreation	1,137	6,736	ND	7,873	2.46%		
Accommodation and Food Services	9,838	13,933	498	24,269	7.59%		
Other Services (Except Public Adminstration)	4,822	6,180	360	11,362	3.55%		
Public Administration	7,348	23,178	506	31,032	9.70%		

Source: US Bureau of Labor Statistics, 2016

Table 16: Location Quotients								
	Cumberland	Dauphin	Perry	Region				
Agriculture, Forestry, Fishing and Hunting	0.59	0.34	6.44	0.59				
Mining, Quarrying, and Oil & Gas	0.16	0.06	n/a	0.10				
Utilities	0.24	1.10	n/a	0.72				
Construction	0.75	0.69	1.95	0.75				
Manufacturing	0.67	0.70	0.60	0.68				
Wholesale Trade	0.70	0.99	0.39	0.86				
Retail Trade	1.10	0.74	1.34	0.90				
Transportation and Warehousing	2.48	1.22	2.60	1.77				
Information	0.80	0.75	0.26	0.76				
Finance and Insurance	1.25	1.46	0.76	1.36				
Real Estate and Rental and Leasing	1.01	0.74	0.50	0.85				
Professional and Technical Services	1.01	0.66	0.40	0.80				
Management of Companies and Enterprises	1.47	0.94	n/a	1.13				
Administrative and Waste Services	1.43	1.00	0.36	1.16				
Educational Services	0.81	0.79	1.50	0.82				
Health Care and Social Assistance	0.71	0.94	0.78	0.84				
Arts, Entertainment, and Recreation	0.51	2.21	n/a	1.45				
Accommodation and Food Services	0.92	0.96	0.79	0.94				
Other Services (Except Public Adminstration)	1.06	1.00	1.33	1.03				
Public Administration	1.36	3.14	1.57	2.36				

Source: US Bureau of Labor Statistics, 2016

Table 16 displays the location quotient for our region's industry, as broken down using the North American Industry Classification System. The highest regional location quotient is for Public Administration. This illustrates the importance of our state's capital, Harrisburg, as it relates to employment. The secondhighest location quotient is for Transportation and Warehousing, another industry that is integral to our region's economy. Figure 11 displays all industries in the region with a location quotient greater than 1.00.

Figure 11: Location Quotients Over 1.00



Agriculture

While agriculture no longer represents a large percentage of the region's employment numbers, its impact on our economy, as well as history and character, is undeniable. Many large farms in the region produce dairy, eggs, meat, vegetables, and grain. Table 17 shows data from the most recent agricultural census, conducted in 2012. Through TCRPC outreach efforts, the importance of preserving this agricultural production is constantly reinforced. Concentrating planning efforts on growing this sector will benefit the Region's economic growth and its historic/cultural roots.

Table 17: Agricultural Census Data (2012)							
	Cumberland	Dauphin	Perry	Pennsylvania			
Number of Farms	1,415	811	899	59,309			
Total Acreage in Farms	157,388	129,378	135,075	7,704,444			
Average Size of Farms (Acres)	109	160	152	130			
Average Value per Farm	\$853,017	\$724,409	\$767,425	\$704,712			
Average Value per Acre	\$7,793	\$4,541	\$5,051	\$5,425			
Market Value of Products Sold (Farms							
with \$10,000 or more in Sales)							
Average per Farm	\$138,060	\$151,158	\$157,932	\$124,783			

Source: US Department of Agriculture, 2012

Job Density

The location of employment centers is an important factor in economic development. Areas with high job density serve as magnets for not just economic growth, but also residential growth. Figure 12 shows the 2014 data from the US Census Bureau's Longitudinal Employment-Household Dynamics (LEHD) On The Map in which the darker colors indicate a higher density of jobs. This image reinforces the importance of Harrisburg, Hershey, and Carlisle as employment centers, while also clearly illustrating the influence our transportation system has on job location. With the importance of our region's Transportation and Warehousing industry, our transportation system serves, not just to access jobs, but

also to facilitate them, as our well-developed infrastructure enables this industry to flourish in the region.

Forecasting Employment Growth

One of the most important aspects of planning for commercial and economic development is developing accurate projections of employment growth. According to our regional projections, which can be seen on Table 18, our region is projected to gain approximately 65,000 new jobs through the year 2040. This represents a growth rate of 20.8%, which is consistent across all three counties. This indicates that TCRPC does not



Figure 12: Job Density

Source: US Census Bureau's Longitudinal Employment-Household Dynamics

anticipate any significant changes to the existing employment patterns discussed earlier in this chapter. Dauphin County will remain the county with the largest number of jobs in region. These projections can be influenced by a variety of factors, including a large scale economic slow-down or recession.

Table 18: Projected Employment Growth								
	2010	2020	2030	2040	Total Growth	Percentage Growth		
Cumberland	126,388	134,615	143,378	152,711	26,323	20.83%		
Dauphin	178,190	189,774	202,112	215,251	37,061	20.80%		
Perry	8,769	9,341	9,950	10,598	1,829	20.86%		
Tri-County Region	313,347	333,730	355,440	378,560	65,213	20.81%		

In addition to the county-level projections, TCRPC established municipal level employment projections, which can be viewed in their entirety in Appendix B. Figure 13 provides a graphic illustration of these municipal level projections, with darker colors indicating more jobs projected through 2040. Overall, job growth is projected to be generally consistent with existing employment patterns. The City of Harrisburg is the municipality with the highest projected job growth, with 11,571. This accounts for more than 17% of the total projected job growth for the region. Other municipalities with high projected job growth include Hampden Township (6,129), Derry Township (5,603), Lower Paxton Township (5,209), Swatara Township (4,665), and Susquehanna Township (3,817). Out of these 5 municipalities with the highest projected growth, 4 are located in Dauphin County, and all have significant existing employment bases.

Figure 13: Projected Employment Growth



Capacity Analysis

To gauge the ability of our region's municipalities to accommodate their projected employment growth, TCRPC conducted a capacity analysis, similar to the analysis outlined in the scenario planning chapter, although not as detailed. Using the updated Anderson Land Use data, we established a "land consumed per job" number for each municipality by dividing total jobs in 2010 by the acreage of existing land classified as commercial, industrial, institutional, mixed use, and other employment supporting uses. We then multiplied this "land consumed per job" number by the total projected employment growth to establish the amount of land that would be needed to accommodate the projected employment growth. Using GIS analysis, this total was compared to the acreage of vacant, buildable land currently zoned to permit commercial development. Figure 14 illustrates the results of this analysis.

Municipalities shown in red had a shortage of more than 50 acres and were classified as "shortage". This indicates these municipalities, without significant zoning or other policy amendments, would most likely not be able to accommodate their projected employment growth. Municipalities shown in green had a surplus of more than 50 acres to accommodate their projected job growth and were classified as "surplus". This indicates these municipalities have plenty of available land that will permit commercial and economic development. Finally, municipalities shown in yellow had within 50 acres of the amount estimated as needed to accommodate their expected job growth. Because of the broad, high level assumptions that were required for this analysis and the wide variety of land needs for different kinds of commercial or economic development, it is difficult to precisely identify the amount of land needed for growth. For this reason, identifying these municipalities as "close" is most appropriate, as they most likely have enough land to accommodate their growth.





Source: TCRPC & US Census Bureau, 2010

Most of the municipalities deemed "shortage" or "close" are located in the areas with the most existing development. This indicates a primary driving factor is a general lack of available land. Many of the same municipalities are found to be lacking sufficient room for expected household growth. These municipalities will have to undertake significant planning efforts to identify areas appropriate for redevelopment, while those with "surplus" will need to identify kinds of development that make a more efficient use of the land to prevent costly expansion of infrastructure.

Conclusion

Our region has an established base of commercial and economic development, and future strategies should seek to reinforce, build upon, or complement these industries. The Capitol Complex in Harrisburg provides a reliable source of public administration jobs that support even more professional service and management jobs. Our well-developed regional transportation network provides a backbone that has enabled our region to be a leader in warehousing and logistics, and could support and enable significant growth in our manufacturing sectors. Additionally, like most regions in our nation, health care, education, and retail sales are industries that make up a large percentage of our employment base and need to be considered in economic development efforts moving forward.

The County Economic Development offices in the region provide support for businesses and municipalities by providing guidance on grant, loan, and other financial opportunities, as well as serving as a valuable source for information. The Capital Region Economic Development Corporation (CREDC) serves a similar role for the region as a whole. The work of all these, as well as other economic development organizations in the region, can help solidify a comprehensive, unified vision of our region's business environment moving forward. Working together towards that unified vision and developing a community open to new businesses and job opportunities can be a catalyst for future growth that provides our region lucrative, family sustaining jobs.
Chapter 8: Transportation

Land use and growth patterns are critically linked to transportation. Virtually every daily activity is influenced by the availability of or access to roads, streets, highways, transit service, pedestrian networks, and parking facilities. Investments and changes in our transportation networks have a profound and immediate impact on our region's residents and businesses. The transportation system's performance affects how we access jobs, housing, shopping, and any of the other activities that are so vital to our region's quality of life, land use patterns, and economic success.

As our region grows, transportation planning will be one of the most important challenges undertaken by our region's decision makers. Aside from regional growth, issues concerning maintenance, advancing technologies, ecological sustainability, and economic development will influence where and how we continue to build upon our already well-developed transportation infrastructure system.

Regional Transportation Planning

Formed in response to the requirements of the Federal Highway Act of 1962, the Harrisburg Area Transportation Study (HATS) is the federally designated Metropolitan Planning Organization for Dauphin, Cumberland and Perry Counties and is comprised of elected and appointed representatives of federal, county, state, and local governments and other regional stakeholders, including PennDOT and CAT. HATS is comprised of a Technical Committee, which is made up of appointed representatives that facilitates and analyzes the variety of transportation planning activities performed by HATS staff and outside



consultants, and a Coordinating Committee, which is made up of elected and appointed representatives that consider the recommendations of the Technical Committee and officially approve the transportation plans, programs, and studies. Also involved in both committee is a variety of regional stakeholders, representing federal and state legislative representatives, municipalities, community groups, and other special interest groups.

The planning process of HATS involves both short-range and long-range transportation plans and programs. The primary short-range program is the Transportation Improvement Program (TIP), a biannually updated four-year program that covers all federal and state-funded transportation improvement projects in the region. Developed in close concert with PennDOT, the TIP represents the primary implementation tool of the HATS long range transportation planning. The Regional Transportation Plan (RTP), the primary product of HATS' long range transportation planning, looks at the regional transportation needs and priorities over a 25-year period. Updated every four years, the RTP can be considered the transportation analog of the Regional Growth Management Plan. Together, these two documents establish our regional transportation needs and how we will address those needs.

Other important transportation planning activities conducted by HATS include the Congestion Management Process, Highway Performance and Monitoring System, transit planning in collaboration with CAT and other regional transit service providers, regional freight studies, bicycle and pedestrian plans, and a variety of corridor and other special studies. These activities provide additional input and data for the transportation planning process and the development of the RTP and TIP.

2040 HATS Regional Transportation Plan

Adopted in December 2014, the 2040 HATS Regional Transportation Plan is the most comprehensive examination of our transportation system, as well as our regional needs and priorities. As stated in the plan, the RTP "sets a framework and priorities for the distribution of federal transportation funds within the HATS region based on regional transportation goals and objectives developed as part of the plan." Providing a comprehensive view of the contents of the 2040 HATS RTP is beyond the scope of the RGMP. However, highlighting some key elements can provide insight into the connection between land use and transportation.

The overall vision of the 2040 HATS RTP is as follows:

"A safe, efficient, environmentally responsible, and seamless multi-modal transportation system integrated with sustainable land use patterns to serve the mobility and accessibility needs of our residents, businesses and through-travelers."

To reach this vision, a series of seven goals was developed, each with corresponding objectives. These goals and objectives served as the basis for updating the transportation related policy statements in this Regional Growth Management Plan.

Transportation and Regional Growth Management

Like other public infrastructure like sewer and water service, transportation infrastructure is a driving factor in regional land use planning and the formulation of the Regional Growth Management Plan. Access to transportation facilities and systems directly affects how much population, housing, and employment growth our region's communities can support. Likewise, the different land uses that are allowed by municipalities affects how much travel demand is generated and where subsequent infrastructure investments need to be made. Transportation infrastructure requires a significant capital investment and lasts for decades, making coordination between land use and transportation efforts vital. Without this coordination, significant investments in transportation infrastructure can go underutilized, or dispersed development can require otherwise unnecessary economic burdens in developing new transportation facilities.

Integrating and coordinating land use and transportation planning improves the livability and sustainability of our region's communities. Developing communities that encourage access to transit, improve bicycle and pedestrian connectivity, and provide link between where people live and where people work, shop, and play not only enhances the livability and sustainability of those communities, but also reduces the pressure on our transportation facilities and the need for future investments, as well as the resources necessary (ie. taxes, fees) to make those investments.

The spatial relationship between jobs and housing is a significant factor in both land use and transportation planning. Decreasing density also reduces transportation options, making transit service more difficult for the resident and more expensive for the provider. Traditional transit systems, like our region's CAT system, are based on a "hub and spoke" model, with routes radiating out from a central location. When jobs or houses are concentrated in that central location, the system works well. But when jobs and houses move away from that central location, transit service becomes less convenient, efficient and effective. For our region's carless residents, the lack of reliable transportation choices presents a significant obstacle to get from home to work, school, shopping, or any other daily activity.

Our region's residents with cars are also affected by these spatial relationships. Commute times, according to US Census data, are increasing throughout the nation and in each of our region's counties. This phenomenon has an impact on not just our region's residents, who are spending more time and money getting to and from work, but also on our region's economic strength as well. Economic development relies on access to labor markets, which is directly tied to our residents' ability to get to and from those jobs. Making sound land use decisions while considering transportation and economic development will ensure that our region remains a place people want to live and businesses want to locate.

Regional Transportation Trends

The 2040 HATS RTP provides a comprehensive analysis of regional transportation trends, providing a picture of the current transportation behaviors and how they've changed over time. Understanding these trends provides critical insight into not just how our transportation system will need to evolve over time, but also how those trends have impacted and will continue to impact our land use decisions.

Table 19 displays the statistics for total Vehicle Miles Traveled, by county and the region. Following national patterns, our region's total VMT has generally increased in the past 20 years. Until the mid 2000s, our region saw constant growth in VMT. However, rising fuel prices and a weakened economy in the late 2000s through early 2010s caused a sharp reduction. With our current low

	Table 19: Vehicle Miles Traveled					
	Cumberland	Dauphin	Perry	Region		
1995	5,890,369	7,030,301	1,288,715	14,209,385		
2000	7,227,878	8,007,684	1,664,342	16,899,904		
2005	7,638,953	8,612,866	1,574,860	17,826,678		
2010	7,384,109	7,748,260	1,342,614	16,474,983		
2015	7,563,973	7,630,368	1,358,284	16,552,625		
2015	7,563,973	7,630,368	1,358,284	16,552,625		

Source: PennDOT

fuel prices and a strengthening economy, that statistic has once again started to increase. Cumberland County was the least affected by this fluctuation, and is on pace to exceed the pre-recession VMT totals. Focusing on the 2015 totals, Dauphin County remains the county with the highest VMT, followed closely by Cumberland County, with Perry County's total well below both.

Figure 15 shows the home-to-work trips by county, which shows Dauphin County with largest net gain in trips. Cumberland County also has a net gain in trips, while Perry County has a net loss in trips. Approximately 65% of the total commuter trips made by Perry County residents is to either Cumberland or Dauphin Counties. The link between Dauphin and Cumberland Counties is especially important to the region, with a total of 39,220 commuters living in one and working in the other. Dauphin County has the highest percentage of residents that work in the same county with 57%, followed by Cumberland County (46%) and Perry County (20%).



Source: US Census Longitudinal Employer-Household Dynamics, 2010

Transportation System Overview

Our region is home to a well-developed transportation system. The extensive highway network is supplemented by inter-city, regional, and local bus service, passenger and freight rail service, and a collection of regional and international airports, providing efficient movement of people, goods, and services throughout our communities and to communities outside our region. The prevalence of major highways in the region have enabled the region to become a vital transportation corridor for long-distance movement of people and freight. Maintaining this system presents a challenging, but vitally important task, as it provides a back-bone on which so much land and economic development in the region is based.

Map 3 provides a graphical overview of the major components of our regional transportation network. For a comprehensive overview and analysis of the facilities and conditions, see the Existing Conditions chapter of the 2040 HATS Regional Transportation Plan.

Conclusion

The connection between land use and transportation planning is clear. Decisions made in one have immediate and long lasting effects on the other. By encouraging a better coordination between the two, our region can improve the efficiency and effectiveness in infrastructure investments and land development, ensuring Cumberland, Dauphin, and Perry Counties remain places people want to live and work.



THIS PAGE LEFT INTENTIONALLY BLANK.

TO BE REMOVED

Chapter 9: Community Facilities and Services

Community facilities and services are the structure that enables our region's urban, suburban, and rural growth, development, and economic activity. Urban and suburban development in particular, are highly dependent upon public infrastructure and utility systems, which provide properties and land uses with power, light, communication, heat, water, waste disposal, and mobility. Other public facilities and services, such as fire and police protection, schools, recreation, public transit, and libraries supplement the region's core utility and human service systems. Access to and availability of these community facilities and services is a key factor is almost all activities of our region's counties, local governments, special purpose authorities and utility companies. Ensuring a high level of service and performance of these facilities and services will enable the success of economic development and the quality of life TCRPC and the RGMP envisions for the region.

Community Facilities and Services and Growth Management

Growth and development policies are inherently tied to community facilities and services. Location, availability, and capacity of these facilities and services are integral in defining the Community Service Areas and Planned Growth Areas. Consideration of the region's community facilities and services has been a consistent element of TCRPC's planning program for many years. The Commission's Articles of Agreement state that a Regional Comprehensive Plan shall be based upon studies of conditions, trends and other factors that are relevant to the probable future development of the area. It is a long standing principle within TCRPC's policy framework that locating suitable areas for residential and non-residential development must be based on an understanding of the natural environment, infrastructure capacities, physical extent of public services and facilities, and the level of service anticipated for future needs.

Level of Service Overview

TCRPC has been providing policies and basic recommendations for community facilities and services for land use planning since the Community Facility Plans done in the late 1960s. While more detailed studies and analyses are the product of the respective county and municipal comprehensive plans, the following section provides a general overview for the region.

Public Sewer Service

In 1969, TCRPC developed the Regional Sewerage Plan, which contained a series of maps and tabular reports depicting the existing and planned service areas for three time horizons (1970, 1980, and an unspecified "future"), as well as detailed estimates and descriptions of the work required to serve the designated service areas. For nearly 25 years, the Regional Sewerage Plan represented the only official sewage policy statement for the Region. In the 1990s, local Act 537 plans and County specific sewerage plans were developed, and by 1995, all of the counties had sewerage facilities planning studies and reports done in response to the legislative changes to PA Act 537, which redefined the review and recommendation roles of counties in the sewage module review process.

The most recent Regional Growth Management Plan adopted in 2011, included a comprehensive survey of our region's public sewer system. This survey included an updated service area map and a capacity estimate. Figure 16 shows the sewerage system capacity, depicted into four capacity range intervals. The

average sewerage plant capacity was found to be 54%. The capacity analysis estimated that approximately 85,500 remaining EDUs were available for future development, with over 36,000 EDUs available in the City of Harrisburg. The survey also asked each authority if they would accept Chesapeake Bay Nutrient Credits, to which the majority indicated they would not due to financial restrictions. As the Chesapeake Bay TMDL regulations become more stringent, the region's authorities will have to respond, which could impact their ability to fund expansion and maintenance. The results of the 2011 survey can be found in Appendix C.

Due to cited security concerns and difficulties in obtaining comprehensive, region-wide data in the 2011 survey, TCRPC did not undertake a similar effort as part of this update. However, using an analysis of recent land development



data, the updated land use data, and other planning efforts, including county and municipal comprehensive plans, the public sewer service map has been updated, as seen on Map 4.

Public Water Service

TCRPC's involvement in water supply planning stretches back to the late 1960s, when the Water Supply Plan was utilized in the Commission's Decision Support System. In 1992, the Baltimore District of the Corps of Engineers completed the Harrisburg Metropolitan Area Regional Water Supply Study, covering 1,500 square miles from Berks County to Franklin County, and analyzing the ability to meet water supply needs through 2030. The study concluded the larger systems appeared to have effectively anticipated the growth and that "the area has abundant water and adequate infrastructure to treat and distribute this water" and analyzed how to maximize the existing infrastructure and meet increasing water quality standards for smaller community systems.

In 2001, Gannett Fleming consultants completed a water supply plan for Perry County. The plan recommendations focused on discouraging the establishment of new, small water systems, encouraging cooperation among water systems of all sizes, and improving County coordination with water system planning. The study also included a significant finding on the potential impact of new arsenic regulations, stating that, according to available data, 9 of the 11 community water systems sampled for arsenic (out of a total of 27) had levels in excess of the Maximum Containment Level of 5 ug/l.

Map 5 shows the updated water service areas of the region. Similar to the updates of the sewer service areas, the updates of the water service areas are based on analysis of recent land development data, the updated land use data, and other planning efforts, including county and municipal comprehensive plans.

Public Recreation Facilities

Parks, open space and other recreation facilities are vital to providing a high quality of life and the region boasts a diverse mix of places for people to exercise, play organized and informal sports, and enjoy scenic natural areas. Map 6 shows the region's public recreation land and trails.

TCRPC conducted an inventory of the Region's existing park and recreation facilities, including public park lands and recreation areas in Federal, State, County, or Local ownership. Table 20 shows the results, organized by county and the region as a whole.

Table 20: Regional Park and Recreation Areas (acres)						
	Cumberland	Dauphin	Perry	Tri-County Region		
State Forests	38,910	8,365	43,739	91,014		
State Game Lands	4,550	45,786	17,431	67,767		
State Parks	3,456	1,851	1,137	6,443		
Fish and Boat	431	no data	no data	431		
Local Parks	3,465	2,669	627	6,761		
Total	50,812	58,671	62,933	172,416		

Source: TCRPC

TCRPC also analyzed the future public recreation needs based on our projected regional growth. According to the 2016 National Recreation and Park Association Field Report, areas with populations exceeding 250,000 typically have 12.5 acres of park and recreation land per 1,000 people. Using that number as our benchmark, Table 21 shows both the total amount needed to serve the projected population in 2040 and the shortage/surplus currently existing. To fully examine the ability of our region's public recreation facilities to serve our residents, a comprehensive review of the variety of facilities should be undertaken, which is most appropriate at the county level.

Table 21: Future Park Needs						
	Total Local Park Land 2016 (acres)	Total Projected Population in 2040	Needed park area to meet 12.5 acres per 1000 persons in 2040 (acres)	Shortage/Surplus of needed 2040 parkland (acres)		
Cumberland	3,465	280,505	3,506	41		
Dauphin	2,669	296,766	3,710	1,040		
Perry	633	50,198	627	5		
Tri-County Region	6,767	627,469	7,843	1,076		

Source: TCRPC

Police, EMS, and Fire Protection

For any community, access to police and fire protection, as well as emergency medical service, is vital to public health and safety. In our region, police service is provided by local or regional forces in our urbanized areas and in most of our boroughs, while the rural areas are typically served by the Pennsylvania State Police. Due to recent proposals to implement a fee for communities relying on PA State Police, regionalization is being examined by a variety of communities in our region and state.

While TCRPC supports the study of police regionalization, county or multi-municipal studies are the most appropriate level for those to occur. Fire service is provided throughout the region, mostly through volunteer departments, many with reciprocal service agreements in which cooperation is ensured to ensure adequate fire protection for the region's residents and businesses. Emergency medical services are provided by many different EMS companies located throughout the region. Most of these companies are supported through yearly fees paid by local communities, with others associated with area hospitals, which typically provide a higher level of life support.

Map 7 shows the location of the region's police, EMS and fire departments.

Public Schools

Our public education system is one of the basic building blocks of our region. Access to quality education is often a key determining factor in defining the quality of life and the desirability of a community. Where schools and the supporting services exist, land development should be encouraged. Where future development or population growth is expected, the requirements and pressures of the public education system should be considered. Related to land development, maximizing the schools' connectivity to the surrounding neighborhood and community is vitally important. Providing safe access, particularly for pedestrians, should be a consideration in both residential development and school site selection/ construction. County comprehensive plans should address this connectivity, as well as each school district's enrollment projections, which are directly linked to population and housing projections.

Map 7 shows the location of our region's schools.

Libraries

Our region is host to a variety of local and institutional library facilities. Countywide library systems in Cumberland, Dauphin, and Perry Counties are organized to evaluate and maintain their current systems and to assist and direct their respective libraries to meet basic standards for library systems in Pennsylvania. Managed by professional staff and/or local volunteers, the Cumberland, Dauphin, and Perry County library systems work to unify the libraries of their county for better coordination of resources and access to library programs and materials for the enjoyment of our region's residents.

Map 7 shows the location of our region's libraries.

Hospitals

The availability of emergency medical and hospital care is important for all our region's citizens. The regional community relies on health services located primarily in the Harrisburg metropolitan area for advanced medical treatment and hospital care. The Pennsylvania Department of Health provides data on hospital service types and bed totals, among many of things, in their yearly County Health Profiles. In our region, hospitals appear to stimulate the formation of related medical services, support services, and outpatient facilities on or near the premises. Access to quality medical care and facilities will become more important as our region's median age increases, putting more demand on services. Something about land use d ecisions affecting public health.

Map 7 shows the location of our region's hospitals.

Conclusion

The availability of or access to public services and infrastructure is one of the most important determining factors for future development and land use planning. While some aspects of availability and access is incorporated into the planning process, long term maintenance costs and room for expansion is too often neglected. While this plan provides high-level depiction of our region's community facilities and services for use in large-scale planning efforts, detailed examinations should be included in county and municipal comprehensive plans.

THIS PAGE LEFT INTENTIONALLY BLANK.











2040 Regional Growth Management Plan



les

Chapter 10: Natural Resources

The natural and environmental resources of our region provide not just ecological benefits, but also contribute to the long term economic development while helping to define the character of our communities. These resources both influence and are influenced by how our region develops, making it vitally important to consider the opportunities and limitations presented by them. To protect against costly degradation or impact and reduce the need for large scale environmental mitigation, a comprehensive, regional inventory and analysis of these features and resources must be part of any regional planning or growth management program.

An inventory of natural and environmental features and resources is particularly important when identifying the areas in the region in which growth in most desirable and appropriate. This chapter provides a broad summary of TCRPC's current and most up-to-date regional data, which is also used in other planning activities, including the Regional Transportation Plan, county comprehensive plans, and any other special studies conducted. As part of an ongoing effort, TCPRC ensures this data is updated regularly and made available to our regional partners, including counties and municipalities, for their own planning purposes.

Natural Resources and Regional Growth Management

As stated earlier, identifying important natural features and resources is a vital part of determining the areas in our region in with growth is most desirable and appropriate. Land development that impacts these features and resources can affect both the short-term costs for land owners and developers, while also burdening the region with increased long-term costs. If these impacts are wide-spread throughout the region, these long-term costs increase and we risk jeopardizing resources and features that, once lost, might not ever be restored.

Geographic Information Systems (GIS) allows TCRPC to not only display and tabulate natural resource data, but to also incorporate it into our land use planning activities. Overlaying multiple layers of data can help identify areas that are particularly sensitive, with the potential to impact multiple valuable features and/or resources. When combined with other data layers, such as the location of public facilities/infrastructure, transportation networks, or land development patterns, this analysis allowed TCRPC to not only identify areas suitable for development, but also areas in which conservation was particularly important.

Overview of Regional Natural Features and Resources

The data presented in the following sections is the result of TCRPC's ongoing, decades long effort to provide the region with the most accurate environmental and natural resource data possible. While compiled by TCRPC, the primary source of the data is a multitude of state and federal agencies, including the PA Departments of Conservation and Natural Resources (DCNR) and Environmental Protection (DEP), US Fish and Wildlife Service, US Department of Housing and Urban Development, and the Federal Emergency Management Agency, as well as the Natural Areas Inventory conducted by The Nature Conservancy.

Floodplains

One of the most basic and important environmental limitations on land use and development, floodplains provide a variety of benefits – improving water quality, reducing erosion, controlling water volumes – while also hosting prime agricultural soils and habitats for a variety of wildlife. Due to the significant number of creeks, streams, and rivers in the region, floodplain management is addressed by most communities, typically through the regulation of land development. Map 8 displays the most recent floodplain delineations, as determined by the Federal Emergency Management Agency.

Wetlands

Another basic and important environmental limitation on land use and development, wetlands provide many similar benefits as floodplains – improving water quality, reducing erosion and sedimentation, controlling water volumes, providing wildlife habitat. While wetlands are typically thought of as being areas with the constant presence of water, some kinds of wetlands, like vernal pools, are free of water for at least some of the year. This makes identification of wetlands at the regional level difficult. Map 8 shows the data for the National Wetlands Inventory, which is compiled by the US Fish and Wildlife Service, which represents the best regional wetland data available.

One of the criteria for wetlands is the presence of hydric soils. To assist our planning partners in identifying areas in which wetlands are likely to be present, our regional hydric soils are also included on Map 8. It should be noted that the presence of hydric soils does not automatically delineate an area as a wetland, but that a wetland is more likely to be present. Individual site investigation and analysis is the vital key in delineating wetlands.

Sensitive Stream Corridors

There are a variety of designations that can be applied to a water course. Some indicate a level of protection or regulation and some are related to water quality. For the sake of improved graphic representation, streams with any level of protection are depicted as a "protected stream" on Map 9. These designations of protection include Class A Trout Streams, Streams Sections that Support Natural Trout Production, and Wilderness Trout Streams (all designated by the PA Fish & Boat Commission), as well as Scenic Rivers (designated by PA Department of Conservation and Natural Resources). While these designations all vary in application and regulation, they all indicate a water course subject to specific regulation. Additionally, the PA Department of Environmental Protection's Chapter 93 water quality standards provide for streams to be designated High Quality (HQ) or Exceptional Value (EV).

Section 303(d) of the Clean Water Act requires states to establish designated uses for streams and rivers, as well as the minimum water quality standards required to accommodate that use. Waterways that meet these standards are referred to as "attaining", while waterways that do not are referred to as "non-attaining". This designation is also shown on Map 9.

Also worthy of note, related to water quality, is the US EPA's Chesapeake Bay Total Maximum Daily Load, established in December 2010 and the PA DEP's Municipal Separate Storm Sewer (MS4) Program. Both programs represent significant, and worthwhile, regulations related to stormwater run-off and water quality and our region's municipalities will need to address any relevant requirements of these programs.

Agricultural Land

Our region has a proud and important history related to agricultural. Through TCRPC's various outreach efforts, the importance of farmland preservation is often repeated, and not just for its use in active agricultural production, but for its essential link to the character and history of many communities. Map 10 shows each land designation relevant to farmland preservation. The majority of our region's valuable farmland is located in Cumberland County, southern Dauphin County, and the valleys of Perry County and northern Dauphin County.

Agricultural Security Area designation protects landowners from local ordinances and nuisance lawsuits pertaining to normal faming activities while limiting the powers of state and local government agencies to condemn farmland. Agricultural Conservation Easements enable the holder to prevent development for non-agricultural uses, and are purchased by state and county governments from private land owners. Prime Farmland is defined by the USDA as "land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops, and is also available for these uses" and designated based on soil quality, growing season, and available water. Farmland of Statewide Importance is land with soils that aren't quite up to the standards of Prime Farmland.

Geology and Slope

Land formation and geology can have an important impact on land development. In the region, the primary geological concern is the development of karst features associated with limestone geology. Map 11 illustrates the areas with known karst features. In combination with geology, slope can also greatly influence development. Developing on steep slopes can lead to increased concerns related to erosion and runoff, as well as land/rock/mud slides, loss of vegetative cover, and soil subsidence. Map 11 also illustrates the areas in our region with slopes greater than 15%, which is generally accepted as the threshold of "steep".

Wildlife Habitat

Due to a variety of concerns, data related to the specific location of threatened or endangered species is not made publicly available. Instead, important areas are identified broadly. The Natural Areas Inventory (NAI), completed in 2005 as part of the PA Natural Heritage Program (PNHP), is TCRPC's best available analysis/data related to sensitive wildlife habitat.

The NAI designates natural areas that exhibit one of the following: 1) exemplary natural communities or species of concern, as tracked by the PNHP; or 2) were not found to contain PNHP elements, but were considered locally significant. The NAI also designates unfragmented forest blocks, based on land cover data, which provide natural habitat for natural flora and fauna, while also connecting to form natural corridors for wildlife movement within and through the Tri-County Region.

Additionally, DCNR designates "natural" and "wild" areas within state parks to protect unique or unusual biologic, geologic, scenic and historic features, while highlighting outstanding examples for the state's forests. Natural areas are managed to provide protection for scenic/aesthetic resources, as well as special plant and animal communities. Wild areas are large tracts of forested land managed to protect wild character and recreational opportunities.

Map 12 shows the region's NAI designated natural areas and unfragmented forest blocks, as well as DCNR designated "wild" and "natural" areas. Both NAI designations are found throughout Perry County

and northern Dauphin County, and southern Cumberland County. The DCNR designated areas are extremely limited, located along the Susquehanna River and within Perry County.

Conclusion

Our region's natural features and resources provide residents and businesses valuable opportunities and benefits, but also require careful consideration and management related to future development. These features and resources are located throughout our region, and as our region grows, impacts on them are unavoidable. Working closely with relevant federal and state agencies, as well as TCRPC, HATS and county planning staff, will enable municipalities to achieve an appropriate balance between growth and development and conservation.











THIS PAGE LEFT INTENTIONALLY BLANK.

TO BE REMOVED

Chapter 11: Historic, Cultural, and Scenic Resources

The TCRPC region is home to a vast amount of historic, cultural, and scenic assets that help define our region, while also serving, in conjunction with the Pennsylvania State Capital, as an important tourist draw. These assets create a sense of place unique to Central Pennsylvania that our region's communities can and have benefited from, making their protection vitally important to all growth management and land planning efforts. TCRPC has an important role in identifying these resources while advocating for their preservation.

This chapter will provide a regional inventory of our historic, cultural, and scenic resources, including historic sites, historic districts, archeological survey sites, and other unique regional features. Maintaining this inventory is an ongoing task that requires cooperation and coordination with other agencies and planning activities. TCRPC's data should be supplemented by more detailed inventories developed by local communities or our region's counties.

Historic, Cultural, and Scenic Resources and Regional Growth Management

Unguided, uncontrolled development can threaten or degrade our region's historic, cultural, and scenic resources, impacting our communities' identity and character. Typically, when these assets and resources are compromised or lost, they are nearly impossible to restore or recover.

As with our natural resources, Geographic Information Systems (GIS) allows TCRPC to not only display and tabulate historic, cultural, and scenic resource data, but to also incorporate it into our land planning activities. Overlaying multiple layers of data can help identify areas that are particularly sensitive, with the potential to impact multiple valuable features and/or resources. When combined with other data layers, such as the location of public facilities/infrastructure, transportation networks, or land development patterns, this analysis allowed TCRPC to not only identify areas suitable for development, but also areas in which conservation was particularly important. However, unlike natural resources, historic, cultural, and scenic resources are much harder to map or tabulate comprehensively. Assets like important viewsheds, as an example, are difficult to identify through a regional analysis or inventory. This makes local input and supplementation vital to identify what is important in each of our region's communities.

Overview of Historic, Cultural and Scenic Resources

Throughout its history, TCRPC has worked with our regional partners to development the most comprehensive data possible. In working with organizations including the Pennsylvania Historic and Museum Commission, PA Department of Conservation and Natural Resources, US Department of the Interior, and US Department of Housing and Urban Development, a data set has been developed that includes National and PA Register Historic Sites, Historic Marker Sites, Archeological Survey Sites, as well as other significant regional and cultural resources. Map 13 graphically illustrates the location of these resources.

Our region's historic districts vary greatly in size, character, and location. Large portions of northern Dauphin County are covered by the Lykens Valley Rural Historic district and the Haldeman State Forest, while the Pine Grove Furnace covers areas of southwestern Cumberland County, while much of Perry County is forested. Conversely, the City of Harrisburg and many of our region's boroughs have historic districts associated with their important, older neighborhoods. National Register Historic Sites are located throughout the region. These sites range from important historic buildings in downtown Harrisburg to historic farmsteads and covered bridges in our rural areas. Archeological survey sites are also located throughout the region.

Other important features and assets in the region include the Appalachian Trail, a unique and important asset to our region, traversing through it, from southwestern Cumberland County to northeastern Dauphin County. Additionally, as home to the PA State Capital, many important federal, state, and local government centers, museums, and educational facilities are found in the region.

It is important to note that the absence of mapped historic, cultural, or historic features does not necessarily indicate a total absence of those features. Field investigation and finer data analysis done at the local level is required to fully reveal the historic features at a particular site.



THIS PAGE LEFT INTENTIONALLY BLANK.

TO BE REMOVED

Chapter 12: Scenario Planning

As we began the early stages of development of the 2040 RGMP, we decided that we would incorporate scenario planning.

Broadly, scenario planning is an analytical tool or framework that allows us to incorporate many different environmental, regulatory, and community factors and examine how they will affect the projected growth of the region over the next 25 years. The goal of scenario planning is to identify issues and trends and compare possible strategies; not to perfectly model what the solution to those issues and trends will look like. Scenario planning is analytical, not predictive. Using GIS modeling and analysis, we are able to identify areas suitable and not suitable for development, and examine how the projected growth can impact our Region's municipalities going forward. The following chapter will provide a basic overview of the logic and methodology that went into our scenarios.

Foundation of the Scenarios

All our scenarios follow the same basic logical path:

- Step 1: Identify undevelopable areas
- Step 2: Identify areas available for housing
- Step 3: Establish anticipated growth
- Step 4: Apply growth rates

The first task undertaken in the development of our scenarios was to establish where housing growth could occur. This was accomplished through the first two steps referenced above.

Identify undevelopable areas

Our analysis began by determining what areas of the region would be deemed "undevelopable". Using TCRPC GIS data, we identified the land in the region classified as public rights of way, existing development, state/publicly owned land, agricultural easements, wetlands, floodplain, and riparian areas, and areas with slopes greater than 25%. This accounted for approximately 566,000 acres, or about 52% of our region.

Figure 17 shows the composite of all the land excluded in our analysis. Because existing development was included, significant areas of land were excluded around Harrisburg and Carlisle (and their surrounding communities). There are also large contiguous areas of excluded land in northeast Dauphin County, southwestern Cumberland County, and southwestern Perry County, all associated with publicly owned land.



Identify areas available for housing

The next step in our analysis was to determine where, throughout the region, housing development is permitted. For municipalities with zoning regulations, all areas zoned for residential development was identified. This includes areas in residential, mixed use, village, and most agricultural zoning districts. For municipalities without zoning regulations, all land was included. Figure 18 shows the regional areas available for housing.

The final step in determining where housing development occur was to subtract the undevelopable areas identified in the first step from the areas where housing development is permitted identified in the second step. The final result, our region's "buildable land" is shown in Figure 19, and totals approximately 365,000 acres, or about 34%.

Establish anticipated growth

As part of the 2040 Regional Transportation Plan (RTP), adopted in June 2014, HATS and TCRPC developed projections for population, household, and employment growth for each municipality (which were subsequently vetted through each municipality). As shown in Table 14, we project our region to grow by approximately 32,000 households, or 14.5%, over the next 25 years. Cumberland County is projected to receive more than 50% of the regional household growth, with Dauphin and Perry County projected to receive about 37% and 5%, respectively.

Figure 18: Areas Housing Permitted



Figure 19: Buildable Land



Table 14: Projected Housing Growth							
	2010	2020) 2030 2040 Total Percentage Growth Growth				
Cumberland	93,943	100,782	107,533	112,707	18,764	20.0%	
Dauphin	110,435	115,199	119,241	122,436	12,001	10.9%	
Perry	17,903	18,934	19,623	19,563	1,660	9.3%	
Tri-County Region	222,281	234,915	246,397	254,706	32,425	14.6%	

Source: TCRPC & US Census Bureau, 2010

Figure 10 displays the household projections by municipality. As expected, the higher numbers (darker shade) are located around the Harrisburg and Carlisle urban centers. While some of our region's municipalities are projected to have a decline in housing, the scale of the loss is fairly low but it is still a factor that must be considered in our planning.

This connection to the RTP and our transportation planning efforts is important as we continue to recognize the vital link between land use and transportation planning. Any connection made between the two is important, and TCRPC is always looking for opportunities to strengthen that link.

These projections are the foundation of our scenarios and were developed with input from local municipalities and are integrated with TCRPC's other planning efforts for a consistent regional planning base. As new data becomes available, these projections will be updated and our scenarios can be revised.

Apply Growth Rates

The final step was to determine the development densities we would examine. To do so, two different numbers were





Source: TCRPC & US Census Bureau, 2010

developed – one reflecting the recent land development activity and one reflecting the minimum lot areas allowed under existing zoning regulations. For each number, the value "in- and out-of-sewer service area" was determined, allowing us to have a little more detail and nuance in our analysis.

For each county, the land development activity was examined from 2008-2015, with different densities being established for cities, suburban municipalities, boroughs, and rural municipalities. This became the density reflecting recent land development trends.

The zoning regulations for every municipality in the region were examined, determining minimum required lot sizes for each zoning district that permitted residential development. After factoring in needs for supporting infrastructure, this was the basis for our density allowed under existing zoning regulations.

The Scenarios

As previously explained, our scenarios examine projected municipal growth (unless otherwise noted) against the available capacity to accommodate that growth, as well as provide a general location the development could occur within the municipality, weighted toward existing development. The methodology and the results of each of our five scenarios follows.

Scenario 1A: Land Development Trends

This scenario examines the impacts of continuing the development patterns of the recent past. The Land Development Trend Density was used with no geographic constraint. The results of Scenario 1A can be seen on Map 14.

Scenario 1B: Existing Zoning Trends

This scenario examines the existing municipal zoning ordinances. The Existing Zoning Density was used with no geographic constraint. The results of Scenario 1B can be seen on Map 14.

Scenario 2: Transportation Corridors

This scenario examines the impacts of concentrating development around our region's transportation infrastructure. For the analysis, land around arterial roads, collector roads, and interstate exits was developed first and according to the Existing Zoning Density, while any remaining needed land was developed according to the Land Development Trend Density. The results of Scenario 2 can be seen on Map 14.

Scenario 3: Expanded Public Transit

This scenario examines the impacts of concentrating development around an expanded public transit system. For the analysis, land around the existing fixed route transit system, as well as a conceptual route running from Harrisburg to Newport Borough (Perry County), the proposed Southern Dauphin Circulator, and a conceptual off-road transit connection between the east and west shore of the Susquehanna River, were

developed first and according to the Existing Zoning Density, while any remaining land was developed according to the Land Development Trend Density. The results of Scenario 3 can be seen on Map 14.

Scenario 4: Regional Population Center

This scenario examines the impacts of concentrating development around our region's cities, boroughs, and villages. For all other scenarios, the municipal growth numbers were kept (assuming the municipality could accommodate its growth). For this scenario, however, different municipal groups were created based on TCRPC's regional planning area structure (Figure 20), with the growth numbers Figure 20: Scenario 4 Municipal Groups



for each municipality of the group aggregated for each group. Aside from the aggregated municipal growth values, this scenario has a methodology similar to Scenario 1B with the Existing Zoning Density used with no other constraint. The results of Scenario 4 can be seen on Map 15.

Table 22: Growth by Scenario			
	"Changing" HH		
Scenario 1A	1,325		
Scenario 1B	3,631		
Scenario 2	4,210		
Scenario 3	2,351		
Scenario 4	9,172		

Accommodating Growth

The scenarios demonstrated some municipalities are unable to accommodate all of their anticipated growth in the scenarios due to a combination of insufficient "buildable land" and trend/ zoning densities. For any municipality unable to accommodate its projected growth, the unaccommodated growth was distributed to the adjacent municipalities within the same county. Map 16 is a

composite image showing which municipalities cannot accommodate their projected growth and which municipalities gain that unaccommodated growth for each of the first four scenarios (1A, 1B, 2, and 3). Similarly, Table 22 shows the total number of households that "changed municipalities" for each of the first four scenarios. Scenario 4 was excluded from the "changing households" comparison because of its different methodology, which doesn't generate comparable results.

As shown on Map 16, the municipalities that cannot accommodate their growth and the municipalities that absorb that growth are generally consistent throughout the scenarios, and are mostly concentrated around the Harrisburg and Carlisle population centers. However, as shown in Table 22, the scale of change differs greatly. The difference between the two trend scenarios is particularly informative. The Land Development Trend Scenario (1A) having by far the lowest number and the Existing Zoning Trends having the second highest number indicates the density at which our region's development has been occurring is significantly higher than the density allowed under existing zoning regulations, particularly in municipalities that have a limited amount of "buildable land" remaining.

In general, two main takeaways emerged through the scenario planning analysis. The first is that many of our earliest developing municipalities have insufficient room to accommodate their projected growth given the constraints of their existing regulations. The second is that many of our rural municipalities have much more "buildable land" than will be consumed by projected growth. Without a concerted effort to concentrate development in areas already served and supported by infrastructure, costly expansions and maintenance burdens will ensue. Each of these has distinct implications for both the municipality and the region as a whole depending on the local land development choices that will be made. These implications and strategies to mitigate the impacts of them will be addressed in the Implementation chapter.

Performance Measures

Each of the scenarios was evaluated using ten different performance measures. These performance measures were chosen to gauge the potential impact of each scenario based on issues identified as most important to our region's future: infrastructure, transportation system, land use patterns, and natural resources. The performance measures are as follows:

- **Development Density** measures the total amount of land consumed by our projected growth.
- **Planned Growth Areas** measures the number of households projected to develop within the areas TCRPC has designated for development (Urban Core, Rural Core, and Growth designations in the 2011 RGMP).
- **Congested Corridors** measures the number of households projected to develop within a Priority Congested Corridor, as identified in the HATS Congestion Management Plan.
- **Public Transit** measures the number of households projected to develop within 1 mile of an existing public transit route or facility.
- **Regional Waterways** measures the number households projected to develop within 500 feet of a river, stream, or other sensitive hydrological area.
- **Agricultural Land** measures the amount of existing agricultural land projected to be lost to development.
- **Existing Woodlands** measures the amount of existing woodlands projected to be lost to development.
- **Public Sewer** measures the number of households projected to develop within an area currently served by public sewer.
- **Public Water** measures the number of households projected to develop within an area currently served by public water.
- **Public Recreation** measures the number of households projected to develop within ½ mile of a public recreation facility (park or trail).

Table 23 shows the ranked performance of each scenario by each measure (1 indicating the best performing and 5 indicating the worst performance). Because Scenario 4 encourages compact, dense development close to existing population centers, it consistently produces the best results among multiple performance measures. Conversely, because our region's transportation system is so well developed, concentrating growth within our transportation corridors does not actually limit the areas growth can occur in any significant way. As such, projected development is dispersed under Scenario 2, which generally performs worst.

Table 23: Scenario Planning Performance Measure Matrix					
	Scenario 1A	Scenario 1B	Scenario 2	Scenario 3	Scenario 4
	Trend (Land Development)	Trend (Zoning)	Transportation Corridors	Expanded Transit	Regional Population Centers
Agricultural Land	4	3	5	2	1
Planned Growth Areas	2	4	5	3	1
Public Water Service	2	4	5	3	1
Existing Woodlands	5	3	4	2	1
Public Sewer Service	1	4	5	3	2
Congested Corridors	4	2	1	5	3
Public Recreation Areas	2	5	4	3	1
Regional Waterways	5	4	2	3	1
Development Density	4	3	5	2	1
Public Transportation	3	4	5	1	2
Total Ranking Points	32	36	41	27	14

Public Outreach

TCRPC staff held six different outreach meetings for municipal officials, with two meetings held in each county. In total, input from 53 separate municipalities was generated through the meetings, representing urban, rural, and suburban communities from all three counties.

Each meeting consisted of a 20-30 minute presentation covering the process and results of the scenario planning analysis, followed by a question and answer session. Following this, the municipal representatives in attendance were asked to participate in an exercise to gauge the relative importance of each performance measure. The collective results of this input was then used to determine the region's "preferred

Table 24: Performance Measures Outreach Results				
Rank	Performance Measure	Avg. Score		
1	Agricultural Land	3.90		
2	Planned Growth Areas	3.80		
3	Public Water Service	3.79		
4	Exising Woodlands	3.78		
5	Public Sewer Service	3.71		
6	Congested Corridors	3.53		
7	Public Recreation Areas	3.49		
8	Regional Waterways	3.43		
9	Development Density	3.42		
10	Public Transportation	3.33		
scenario" - the scenario that had the best results for the performance measures deemed most important.

Table 24 shows the results of the performance measure importance data. Agricultural Land and Planned Growth Areas were determined to be the two most important performance measures. Referring back to Table 23, Scenario 4 is the scenario with the best results for those two performance measures, as well as the majority of the others. Based on the results of this analysis, Scenario 4 is the region's "preferred scenario" and changes to the planned growth area designations will be made with this in mind.

While TCRPC's analysis shows that Scenario 4 most positively impacts the concerns and issues of our region, as well as aligning with best planning practices and existing TCRPC policies, we recongnize the political and legislative obstacles in pursuing that model of development. Scenario 3: Expanded Public Transit also performed well overall and offers valuable insight into growth management implementation policies as well.

THIS PAGE LEFT INTENTIONALLY BLANK.







THIS PAGE LEFT INTENTIONALLY BLANK.

TO BE REMOVED

Chapter 13: Community Service and Planned Growth Areas

Density and Regional Planning

Put simply, density is one of the most important factors in land use and transportation planning. In fact, the goal of many land use and transportation policies is encouraging or facilitating development to occur at desirable densities. Changes in development patterns and population distribution over the past several decades have led to a variety of policy concerns in the region, and the nation as a whole. The continued reliance on automobiles, and the land use patterns that enable that reliance, lead to negative environmental impacts and massive investments in infrastructure (transportation, water and sewer lines, and emergency and community services) necessary to serve the plethora of low-density development are all concerns that have led to renewed policy focus on density.

Since the middle of the 20th century, low density suburban and exurban housing has become seen as normal, appropriate, and desirable places to live among the general public. However, for community planners, development professionals, elected officials, and other decision makers, there is a recognition of a growing need for more compact, dense development and a greater mixture of uses, achieved through both new development and infill or redevelopment. Understandably, many members of both the previously mentioned groups view the topic of density with some trepidation.

Density and the Regional Growth Management Plan

To establish a regional policy on density, the Regional Growth Management Plan delineates Community Service Areas (CSA) and Planned Growth Areas (PGA). Both identify where infrastructure investments have already been made (CSA) and are a generalized, regional composition of different development typologies with recommended densities (PGA).

Community Service Areas

In developing this update of the Regional Growth Management Plan, Community Service Areas establish where significant public investment has already occurred or can be reasonably expected to occur based on current plans and policies. The primary factors in establishing CSAs are transportation infrastructure and public sewer and water service areas, although other factors are also considered, including access to public transit, emergency services, and community services.

Our region's counties have their own distinct characteristics, which led to a varied approach in establishing the CSAs in each. Cumberland and Dauphin Counties each have areas well served by public sewer, public water, and transportation infrastructure, including public transit access. Conversely, Perry County, due to its rural character, has very few areas with this level of service and investment. This disparity, caused by the different development patterns and characteristics of the Counties, led to a different standard being used to establish the CSAs in rural areas.

Map 17 graphically illustrates the Community Service Areas. Because our region saw only modest expansion of public services since our last RGMP, the areas of adjustment for the CSAs were minimal, and mostly followed areas in which public sewer and water service were expanded.

Planned Growth Areas

The Planned Growth Area (PGA) strategy is a process where local and county officials participate in an organized effort to delineate areas already provided with public services such as water, sewer, transportation facilities, emergency services, parks and schools to establish the most practical areas to focus development. The PGA guides and coordinates land use densities and intensities where there is existing and available capital infrastructure. This approach provides recommendations by establishing target areas appropriate for more intense economic activity, urban and suburban residential development and areas more suitable for rural development, agriculture, conservation areas.

The region's Planned Growth Areas, as established by TCRPC, have been evolving since preliminary analyses were done as part of the 1994 Regional Growth Strategy report. In 1996, a basic work program was developed to begin data collection activities necessary for defining PGAs. In the most recent RGMP, adopted in 2011, a "Land Needs" analysis, was done to provide a reasonable estimate of land required to accommodate future growth and development. The PGA was determined using population, household, and employment projections, providing a baseline of what can be expected and needed in the future. A "Build-Out" analysis was also performed, examining the capacities of current policies and zoning ordinances. These analyses were done to better compare the realistic needs of the future with the full build out implications of existing policies and regulations, a concept rarely considered in most planning efforts.

This update continues to promote the delineation of PGAs and CSAs. Similar to other planning efforts, the PGA does not mean development is not planned or expected to occur in non-PGA areas. Rather, the housing and commercial activity in PGAs will typically support higher densities and intensities of development due to the proximity to available public services, and should be the first preference of municipalities as they plan for and manage future growth.

Planned Growth Areas are based on the following generalized planning typologies:

- Urban Cores: urban areas fully served with public facilities and accessible transportation networks
- **Rural Cores:** rural towns with partial public facilities, typically little to no access to mass transit, possibly linked through connections of any public service with Growth Areas
- Suburban Cores: suburban and town areas with locally oriented public utilities and services and limited mass transit access, with the possibilities of connections of public services between Urban Core and Growth Areas
- **Rural Reserve Areas:** areas characterized by very low-density residential development that will be necessary to sustain the population in perpetuity
- **Conservation Areas**: environmentally sensitive areas less conducive to development, including agricultural and forested areas

Each planning typology has a generalized target gross density based on analysis of existing development patterns and land use data, determined to be as follows:

- Urban Cores: more than 7.0 units per acre
- Rural Cores: 2.5 units per acre or more
- Suburban Cores: 3.0 units per acre or more

- Rural Reserve Areas: less than 0.15 units per acre
- Conservation Areas: less than 0.05 units per acre

Urban Cores, Rural Cores, and Suburban Cores are considered to be the Planned Growth Areas.

As part of this update of the RGMP, a capacity analysis was performed for the region's municipalities based on these densities. The total capacity of each municipality was then compared to its total projected household growth. Figure 21 shows the results of this analysis.

Generally, it was evident our PGA designations were able to accommodate our region's projected growth. This result is expected because of the relatively low level of development that has occured in the region since the last RGMP update in 2011. There were, however, some exceptions.

Some of our region's small, rural boroughs were unable to accommodate their projected growth under the previous PGA designation. Similarly, some of our region's larger boroughs and more highly developed suburban communities were also unable to accommodate their projected growth under the previous PGA designation. In both cases, the municipalities are completely covered with the highest density designation that is most appropriate (Rural Core for the rural boroughs, Growth for the larger boroughs and highly developed suburbs). Lack of land available



Figure 21: PGA Capacity Analysis Results

Source: TCRPC

for development is the biggest factor in each. As such, changing the PGA designation will not increase the municipalities' ability to accommodate their growth. Other strategies, such as aggressively pursuing redevelopment or identifying specific areas most appropriate for increasing density, will be needed to accommodate future growth.

There were, however, some municipalities for which the current PGA designations were simply no longer reflective of current development patterns and were unable to accommodate projected growth. South Hanover Township and West Hanover Township both fell into this category. Neither municipality had any areas designated as a Planned Growth Area, and were completely covered by Rural Reserve and Conservation designations. Using the results of our preferred scenario (Scenario 4 – Regional Population Centers), our Community Service Areas, and each municipality's comprehensive plan, areas were identified and converted to Growth Areas in an amount sufficient to accommodate projected growth.

Map 18 shows the updated PGA designations, while Figure 22 displays a simplified version, showing the PGA Areas (Urban, Rural, and Suburban Cores) and non-PGA Areas (Rural Reserve and Conservation Areas).



Figure 22: Planned Growth Areas

10 Miles O Source: TCRPC

5

0





Chapter 14: Implementation

The key to implementation of the Regional Growth Management Plan, or any plan, is nurturing and developing meaningful partnerships. The Commission will continue this effort, focusing not just on municipal and county governments, but also with other regional stakeholders that share the common vision and expectations described in this plan. Partnerships will continue to be built and maintained upon mutual respect in areas of overlapping responsibilities, and with mutual support in areas where responsibilities are separate but compatible in the achievement of common goals and benefits. Future municipal and county comprehensive plans should be consistent with the goals and objectives of the RGMP, while offering more specific and unique recommendations regarding both land use and implementation policies and strategies that are most appropriate for their area.

County Level Implementation

Comprehensive Plans

Our region's County comprehensive plans are encouraged to incorporate updates and revisions to the Community Service Areas (CSA) and Planned Growth Areas (PGA) as the starting point to determining more detailed future land use plans. Current municipal ordinances should also be considered. Each County is encouraged to focus on building and maintaining relationships with the both TCRPC and municipal governing bodies in order to help with the effective implementation of this plan. This coordination would also assist municipalities in aligning their planning efforts with the County comprehensive plan and the RGMP. The entire process should be revisited, at minimum, every 10 years, as required by the Pennsylvania Municipalities Planning Code, Act 247 and TCRPC's Articles of Agreement.

Municipal Level Implementation

Comprehensive Plans

The ultimate intent of the RGMP is to have final implementation at the municipal level. Municipal plans are encouraged to base their own Planned Growth Areas on the recommendations contained within this plan and County plan, but with much greater detail given to the specific land use patterns of the municipality. Municipalities should also consider incorporating a basic scenario planning analysis into updates of their comprehensive plans. Each municipality will need to determine which planning tools and/or efforts best fit their needs moving forward, with consideration given to revising current municipal implementing ordinances.

Other Planning Efforts

There are other plans that will help counties and municipalities establish and facilitate the goals and objectives of the RGMP. The plans include, but aren't limited to: Greenways and Open Space Plans, Act 537 Sewage Plans, Countywide Zoning and Subdivision and Land Development Ordinances, Hazard Mitigation Plans, and Floodplain Ordinances. Using the goals and objectives set forth in this plan as a basis for each of these more detailed plans, while also maintaining consistency among various plans, will work towards a more sustainable future growth across the region.

Tri-County Regional Planning Commission Assistance

It is TCPRC's intent to assist our region's municipalities in implementing any part of the RGMP to the best of the Commission's abilities. In the past, TCRPC has provided our region's municipalities with model ordinances, ranging from Subdivision and Land Development and Zoning produced in 1982 to medical marijuana produced in 2016. These models provide common, consistent definitions and standards to be used in county or municipal ordinance development and updates. As our needs for land use tools change and the desire for quality development by our region's citizens grows, the "toolbox" of provisions for municipal ordinances and development regulations will be expanded. Our toolbox, and regional program, will focus on providing our regional partners with strategies to address the Regional Issues discussed in Chapter 2 of this plan. These will include, but won't be limited to: more traditional tools such as infill and adaptive reuse and Traditional Neighborhood Development (TND) to more innovative approaches like Transit Oriented Development (TOD), Complete Streets, and Green Infrastructure. The toolbox will be an ever evolving collection of information and ideas for municipalities to use in implementing the goals and objectives of the Regional Growth Management Plan as it applies to their specific needs. Additional regional planning efforts are also identified and supported through TCRPC's annual work program and budget.

The counties' Local Planning Assistance Program (LPA) can support our region's counties and municipalities by providing assistance with updating municipal plans, reviewing subdivision and land development submissions, research, grant applications, and other planning services.

Recommendations for Implementation

By using this plan, our region's municipalities will be able to better plan for a successful future. The goals and objectives provided in this plan will ensure a regionally consistent approach for growth and development. While the Regional Growth Management Plan is considered at a regional level, County and municipal level recommendations will also help further the implementation process. Each of our region's counties and municipalities has unique features that differentiate it from the others, making the application of each recommendation unique. When these recommendations also consider the goals and objectives outlined in this plan, it works to help further implement the RGMP while addressing county and municipality priorities.

- Regularly update Comprehensive Plan in coordination with the updates of the RGMP to ensure consistency
- Work with Tri-County Regional Planning Commission by using the planning services offered to counties and municipalities
- Continue efforts on County-wide preservation of prime farmland and support the local agriculture industry
- Introduce local TDR programs and/or open space or cluster development zoning to maintain rural landscapes
- Develop county-wide economic development plans that include an economic base study to help determine where commercial needs exist, gaps in industries can be filled, and sites with supporting infrastructure can be identified

- Encourage continuous public participation throughout the year to help maintain working relationship with the public
- Encourage the strengthening or establishment of municipal plans and ordinances to maintain rural, natural and agricultural areas, while recognizing the need to accommodate projected growth
- Continue to increase economic opportunities through workforce development programs and promotion of locations to businesses outside the region

Funding for Implementation

The financial burden of implementing the goals and objectives of the Regional Growth Management Plan can prove significant for our region's counties and municipalities. Updating or developing new plans consistent with the RGMP requires time and resources that many municipalities do not have. The Local Planning Assistance Program (LPA) can provide one avenue for reducing this burden.

TCRPC's Regional Connections Grant Program is another source for regional partners looking for financial assistance in their planning efforts. Created in 2011, Regional Connections Grants support local planning and development efforts that implement the Regional Growth Management Plan and the HATS Regional Transportation Plan. The program provides funding to municipalities and counties to support locally-directed, collaborative actions to improve communities, enhance community character, manage growth, maximize existing infrastructure capacity, and link land use and transportation planning decisions to create a more sustainable future for our region. Since its creation, Regional Connections Grants have been used to fund planning efforts ranging from redevelopment plans, to form-based codes to regional trails and corridor plans.

Sources for grant funding may be subject to political pressure, creating an ever changing environment that can be difficult to navigate. Finding the right grant for local assistance can be a challenging process, but using the services provided by TCRPC (as noted above) can help local municipalities find funding to fit their needs. Additional resources, such as www.grants.gov, can provide further assistance identifying appropriate funding sources. Possible grant opportunities can be focused on infrastructure advancements or maintenance, implementing best management practices for stormwater management, developing an economic base study and planning assistance.

Future RGMP Updates

As our region continues to grow and evolve, changes will inevitably occur. Periodic examinations of our region's internal and external conditions are key to maintaining the Regional Growth Management Plan's viability and to ensure the Commission's relationships with its partners remain mutually supportive. As such, the RGMP should be reviewed and updated at least every 10 years and/or in conjunction with revisions to the respective County Comprehensive Plans, the HATS Regional Transportation Plan, unique regional circumstances and upon receipt of decennial data from the US Census Bureau.

THIS PAGE LEFT INTENTIONALLY BLANK.

APPENDIX A: REGIONAL ISSUES OVERVIEW - 90 B: SEWER SURVEY RESULTS - 92 C: SEWER SURVEY RESULTS (2010) - 101 D: DETAILED SCENARIO RESULTS - 102

2040 RGMP Region Issues Overview

1. Comprehensive Transportation

Transportation, land use and economic development plans need to be developed in an integrated manner to generate a system that promotes economic competitiveness and creates safe, healthy and accessible communities for everyone. The transportation network should serve all users equally and be designed and operated with all users and land uses in mind.

2. Aging Infrastructure

Long-term maintenance of supporting infrastructure (water, sewer, transportation) is not fully accounted for during initial stages of development. Over time deteriorating conditions adversely impact operations and budgets.

3. Future Infrastructure Needs

Current support systems will need to accommodate evolving technologies, as well as new sources and distribution of energy.

4. Natural Resource Protection

Natural resources is the largest land use in the region. Inefficient land use patterns jeopardize the region's rich abundance of natural resources. When opportunities for infill, redevelopment and contiguous development are discouraged, development pressure impinges on the natural areas and resources.

5. Inefficient Land Use Patterns

Areas of growth that are not contiguous to others make it difficult to provide services and access daily needs. This also increases the cost of development, service provision and maintenance of supporting physical infrastructure.

6. Unrealized Potential for Reuse

Municipal regulations and market forces encourage development of "cheaper" (in the short term) land in less densely developed/populated areas, which discourages the (re)use of land within areas of existing services and infrastructure. Once-viable structures and neighborhoods struggle to maintain their vitality.

7. Connectivity and Linkages

Areas of growth that are not contiguous to others make it difficult to access services and daily needs. Lack of connections and options for travel other than roads creates a dependence on cars, which impacts not only congestion levels and air quality, but also physical health, sense of place and general quality of life in communities.

8. Improving Education

Employers are having difficulty finding the labor force to fill available jobs. The education system needs to prepare students for the workforce, at a family-sustaining wage level. In turn, the regional economy needs to provide family-sustaining wage level jobs and others which retain the workforce the education system produces.

APPENDIX A

9. Access to Services and Jobs

The existing development pattern centers on travelling by car. People who cannot afford a car, and who do not live within an area served by public transit or have access to other modes, are adversely affected. This influences the quality of life in the region as a whole.

10. Range and Mix of Housing

Growth in housing demand is projected to consist primarily of smaller homes on smaller lots, a reversal from the demand of the last 50+ years. The mismatch between available housing stock and changing demographics spurs a need for a different mix of housing types and standards for development/ construction, which provide good conditions and is affordable to all income levels and ages.

11. Aging Population

We're getting old. Existing senior facilities are not located in areas of growing older population. Over the next 15 years, working-age population will decrease by half in proportion to the 65+ age group. This impacts how our communities will meet the needs of an increasingly elderly population, who want to remain in their community.

12. Farmland Preservation

Agriculture policies often undermine landowners/farmers longevity in the business, and reinforce putting farmland to non-agricultural use.

13. Flooding

The amount of impervious surface generated by development is directly related to the quantity and velocity of stormwater runoff. Resulting erosion and water quality impacts have created fluctuations in groundwater capacity and drought-sensitive conditions, as well as the imposition of additional municipal regulations to address those impacts.

14. Community Well-being

Community well-being is influenced by several interrelated factors – physical, social and economic. Creating communities which allow life-long living and learning provides stability, cohesiveness, and better health. Expanding options for when, where, and how people can live, work, and play promotes active lifestyles and creates more economically productive and desirable places to live.

15. Access to Food

Agriculture is our region's second largest land use and one of our largest industries. Farms are becoming smaller in size and some areas of the region are considered "food deserts." There is a need to plan on a regional scale for the entire food cycle, from production and processing, through distribution to consumption and waste management, so healthy food is a resource for all.

16. Regional Poverty

Increasing poverty rates are becoming dispersed throughout the region in lower-density areas where there are even fewer transit options to access available jobs and affordable housing options. Mixed-use and mixed-income communities promote development that protects and enhances overall health and the natural environment, and reduces auto dependency by providing jobs and services that are accessible by foot or transit.

CUMBERLAND COUNTY - PO	PULATIO	z								
			CENSUS				PROJECTIONS	9	Change 2	010-2040
	1970	1980	1990	2000	2010	2020	2030	2040	#	%
CAMP HILL BOROUGH	9,931	8,422	7,831	7,636	7,888	8,054	8,218	8,344	456	5.8
CARLISLE BOROUGH	18,079	18,314	18,419	17,970	18,682	19,559	20,426	21,090	2,408	12.9
COOKE TOWNSHIP	71	197	06	117	179	200	222	238	59	32.8
DICKINSON TOWNSHIP	2,416	3,037	3,870	4,702	5,223	5,656	6,083	6,411	1,188	22.7
EAST PENNSBORO TOWNSHIP	13,828	15,381	16,588	18,254	20,228	21,571	22,897	23,914	3,686	18.2
HAMPDEN TOWNSHIP	11,847	17,732	20,384	24,135	28,044	30,478	32,908	34,793	6,749	24.1
HOPEWELL TOWNSHIP	1,026	1,411	1,913	2,096	2,329	2,485	2,640	2,758	429	18.4
LEMOYNE BOROUGH	4,625	4,178	3,959	3,995	4,553	4,729	4,902	5,035	482	10.6
LOWER ALLEN TOWNSHIP	13,690	14,077	15,254	17,437	17,980	19,126	20,200	20,980	3,000	16.7
LOWER FRANKFORD TOWNSHIP	813	1,261	1,491	1,823	1,732	1,841	1,948	2,031	299	17.2
LOWER MIFFLIN TOWNSHIP	746	1,122	1,700	1,620	1,783	1,926	2,067	2,175	392	22.0
MECHANICSBURG BOROUGH	9,385	9,487	9,452	9,042	8,981	9,235	9,485	9,677	969	7.8
MIDDLESEX TOWNSHIP	2,857	4,506	5,780	6,669	7,040	7,559	8,072	8,466	1,426	20.2
MONROE TOWNSHIP	3,326	4,836	5,468	5,530	5,823	6,205	6,583	6,872	1,049	18.0
MT HOLLY SPRINGS BOROUGH	2,009	2,068	1,925	1,925	2,030	2,108	2,185	2,244	214	10.5
NEWBURG BOROUGH	320	302	312	372	336	346	356	363	27	8.1
NEW CUMBERLAND BOROUGH	9,803	8,051	7,665	7,349	7,277	7,402	7,526	7,620	343	4.7
NEWVILLE BOROUGH	1,631	1,370	1,349	1,367	1,326	1,353	1,379	1,400	74	5.6
NORTH MIDDLETON TOWNSHIP	6,572	9,785	9,833	10,197	11,143	11,998	12,843	13,491	2,348	21.1
NORTH NEWTON TOWNSHIP	1,365	1,697	1,779	2,169	2,430	2,613	2,795	2,934	504	20.7
PENN TOWNSHIP	1,441	1,944	2,425	2,807	2,924	3,148	3,369	3,539	615	21.0
SHIPPENSBURG BOROUGH	5,172	4,376	4,328	4,467	4,416	4,571	4,724	4,842	426	9.6
SHIPPENSBURG TOWNSHIP	3,198	4,136	4,606	4,504	5,429	5,876	6,318	6,657	1,228	22.6
SHIREMANSTOWN BOROUGH	1,773	1,719	1,567	1,521	1,569	1,569	1,569	1,569	0	0.0
SILVER SPRING TOWNSHIP	6,324	7,148	8,369	10,592	13,657	15,187	16,697	17,855	4,198	30.7
SOUTHAMPTON TOWNSHIP	2,451	3,004	3,552	4,787	6,359	7,247	8,124	8,796	2,437	38.3
SOUTH MIDDLETON TOWNSHIP	7,521	8,941	10,340	12,939	14,663	15,883	17,089	18,013	3,350	22.8
SOUTH NEWTON TOWNSHIP	874	972	1,153	1,290	1,383	1,462	1,541	1,601	218	15.8
UPPER ALLEN TOWNSHIP	7,325	10,533	13,347	15,338	18,059	19,738	21,429	22,747	4,688	26.0
UPPER FRANKFORD TOWNSHIP	991	1,552	1,703	1,807	2,005	2,191	2,375	2,516	511	25.5
UPPER MIFFLIN TOWNSHIP	638	964	1,013	1,347	1,304	1,405	1,505	1,581	277	21.2
WEST PENNSBORO TOWNSHIP	2,937	4,329	4,945	5,263	5,561	5,960	6,354	6,656	1,095	19.7
WORMLEYSBURG BOROUGH	3,192	2,772	2,847	2,607	3,070	3,153	3,236	3,299	229	7.4
TOTAL - CUMBERLAND	158,177	179,624	195,257	213,674	235,406	251,836	268,063	280,505	45,099	19.2

DAUPHIN COUNTY - POPULA	TION									
			CENSUS			-1	PROJECTIONS		Change 2	010-2040
	1970	1980	1990	2000	2010	2020	2030	2040	#	%
BERRYSBURG BOROUGH	443	447	376	354	368	374	380	384	16	4.3
CONEWAGO TOWNSHIP	1,124	2,471	2,832	2,847	2,997	3,223	3,413	3,564	567	18.9
DAUPHIN BOROUGH	998	901	845	773	791	803	813	820	29	3.7
DERRY TOWNSHIP	15,452	18,115	18,408	21,273	24,679	26,007	27,097	27,625	2,946	11.9
EAST HANOVER TOWNSHIP	2,938	3,574	4,569	5,322	5,718	5,928	6,093	6,218	500	8.7
ELIZABETHVILLE BOROUGH	1,629	1,531	1,467	1,344	1,510	1,532	1,550	1,564	54	3.6
GRATZ BOROUGH	675	678	969	676	765	793	816	834	69	9.1
HALIFAX BOROUGH	907	606	911	875	841	853	863	871	30	3.6
HALIFAX TOWNSHIP	2,038	2,943	3,449	3,329	3,483	3,671	3,830	3,956	473	13.6
HARRISBURG CITY	68,061	53,264	52,376	48,950	49,528	49,335	49,173	49,044	-484	-1.0
HIGHSPIRE BOROUGH	2,947	2,959	2,668	2,720	2,399	2,418	2,434	2,447	48	2.0
HUMMELSTOWN BOROUGH	4,723	4,267	3,981	4,360	4,538	4,674	4,789	4,880	342	7.5
JACKSON TOWNSHIP	1,156	1,568	1,797	1,728	1,941	2,052	2,145	2,219	278	14.3
JEFFERSON TOWNSHIP	164	340	385	327	362	385	405	421	59	16.2
LONDONDERRY TOWNSHIP	3,453	5,138	4,926	5,224	5,235	5,484	5,695	5,862	627	12.0
LOWER PAXTON TOWNSHIP	26,517	34,830	39,162	44,424	47,360	50,103	52,600	55,230	7,870	16.6
LOWER SWATARA TOWNSHIP	5,267	6,772	7,072	8,149	8,268	8,740	9,137	9,453	1,185	14.3
LYKENS BOROUGH	2,506	2,181	1,986	1,937	1,779	1,777	1,775	1,773	-6	-0.3
LYKENS TOWNSHIP	997	1,138	1,238	1,095	1,618	1,699	1,767	1,821	203	12.6
MIDDLE PAXTON TOWNSHIP	3,362	4,745	5,129	4,823	4,976	5,439	5,723	5,976	1,000	20.1
MIDDLETOWN BOROUGH	9,080	10,122	9,254	9,242	8,901	9,065	9,204	9,314	413	4.6
MIFFLIN TOWNSHIP	475	553	676	662	784	828	865	894	110	14.1
MILLERSBURG BOROUGH	3,074	2,770	2,729	2,562	2,557	2,571	2,583	2,592	35	1.4
PAXTANG BOROUGH	2,039	1,649	1,599	1,570	1,561	1,563	1,566	1,567	9	0.4
PENBROOK BOROUGH	3,379	3,006	2,791	3,044	3,008	3,051	3,087	3,116	108	3.6
PILLOW BOROUGH	332	359	341	304	298	302	304	307	6	3.0
REED TOWNSHIP	259	289	259	182	239	252	263	272	33	13.8
ROYALTON BOROUGH	1,040	981	1,120	963	907	959	1,003	1,038	131	14.4
RUSH TOWNSHIP	160	212	201	180	231	241	249	256	25	10.7
SOUTH HANOVER TOWNSHIP	2,689	4,046	4,626	4,793	6,248	6,964	7,568	8,047	1,799	28.8
STEELTON BOROUGH	8,556	6,484	5,152	5,858	5,990	5,980	5,972	5,965	-25	-0.4
SUSQUEHANNA TOWNSHIP	17,008	18,034	18,636	21,895	24,036	25,567	26,827	27,491	3,455	14.4
SWATARA TOWNSHIP	17,178	18,796	19,661	22,611	23,362	24,420	25,313	26,022	2,660	11.4
UPPER PAXTON TOWNSHIP	2,718	3,435	3,680	3,930	4,161	4,409	4,618	4,783	622	15.0
WASHINGTON TOWNSHIP	1,114	1,734	1,816	2,047	2,268	2,384	2,481	2,559	291	12.8
WAYNE TOWNSHIP	513	698	847	1,184	1,341	1,446	1,535	1,605	264	19.7
WEST HANOVER TOWNSHIP	4,407	6,115	6,125	6,505	9,343	10,460	11,403	12,151	2,808	30.1
WICONISCO TOWNSHIP	1,471	1,566	1,372	1,168	1,210	1,230	1,247	1,260	50	4.2
WILLIAMS TOWNSHIP	945	1,033	1,146	1,135	1,112	1,146	1,175	1,197	85	7.7
WILLIAMSTOWN BOROUGH	1,919	1,664	1,509	1,433	1,387	1,379	1,372	1,367	-20	-1.5
TOTAL - DAUPHIN	223,713	232,317	237,813	251,798	268,100	279,506	289,132	296,766	28,666	10.7

PERRY COUNTY - POPULATIO	Z									
			CENSUS			PI	ROJECTIONS		Change 20	10-2040
	1970	1980	1990	2000	2010	2020	2030	2040	#	%
BLAIN BOROUGH	287	274	266	252	263	269	273	273	10	3.7
BLOOMFIELD BOROUGH	1,032	1,109	1,092	1,077	1,247	1,307	1,348	1,344	97	7.8
BUFFALO TOWNSHIP	599	902	1,080	1,128	1,219	1,288	1,334	1,330	111	9.1
CARROLL TOWNSHIP	1,904	3,173	4,597	5,095	5,269	5,643	5,876	5,860	591	11.2
CENTRE TOWNSHIP	1,109	1,663	1,974	2,209	2,491	2,679	2,804	2,793	302	12.1
DUNCANNON BOROUGH	1,739	1,645	1,450	1,508	1,522	1,565	1,593	1,591	69	4.5
GREENWOOD TOWNSHIP	747	947	943	1,010	866	1,054	1,091	1,088	06	9.0
HOWE TOWNSHIP	397	460	459	493	393	405	413	412	19	4.8
JACKSON TOWNSHIP	413	437	489	525	547	574	592	591	44	8.0
JUNIATA TOWNSHIP	800	1,046	1,278	1,359	1,412	1,513	1,580	1,575	163	11.5
LANDISBURG BOROUGH	269	227	178	195	218	221	222	222	4	1.9
LIVERPOOL BOROUGH	847	809	934	876	955	989	1,011	1,009	54	5.7
LIVERPOOL TOWNSHIP	553	781	915	996	1,057	1,120	1,162	1,158	101	9.6
MARYSVILLE BOROUGH	2,328	2,452	2,425	2,306	2,534	2,711	2,852	2,834	300	11.8
MILLER TOWNSHIP	458	660	894	953	1,098	1,190	1,252	1,247	149	13.5
MILLERSTOWN BOROUGH	612	550	646	679	673	695	709	708	35	5.1
NEW BUFFALO BOROUGH	150	156	145	123	129	137	142	141	12	9.6
NEWPORT BOROUGH	1,747	1,600	1,568	1,506	1,574	1,606	1,627	1,626	52	3.3
NE MADISON TOWNSHIP	419	564	674	856	786	842	879	876	90	11.5
OLIVER TOWNSHIP	1,557	1,749	2,039	2,061	1,931	2,012	2,066	2,061	130	6.7
PENN TOWNSHIP	2,269	2,841	3,283	3,013	3,225	3,384	3,490	3,481	256	7.9
RYE TOWNSHIP	1,316	1,642	2,136	2,327	2,364	2,476	2,560	2,553	189	8.0
SAVILLE TOWNSHIP	1,200	1,622	1,818	2,204	2,502	2,668	2,778	2,769	267	10.7
SW MADISON TOWNSHIP	537	658	745	856	666	1,063	1,106	1,102	103	10.3
SPRING TOWNSHIP	1,070	1,537	1,665	2,021	2,208	2,351	2,447	2,438	230	10.4
TOBOYNE TOWNSHIP	292	402	455	494	443	471	490	488	45	10.3
TUSCARORA TOWNSHIP	624	884	1,034	1,122	1,189	1,276	1,335	1,330	141	11.8
TYRONE TOWNSHIP	1,430	1,590	1,741	1,863	2,124	2,199	2,248	2,244	120	5.6
WATTS TOWNSHIP	613	962	1,152	1,196	1,265	1,352	1,410	1,405	140	11.1
WHEATFIELD TOWNSHIP	1,297	2,376	3,097	3,329	3,334	3,538	3,657	3,648	314	9.4
TOTAL - PERRY	28,615	35,718	41,172	43,602	45,969	48,597	50,348	50,198	4,229	9.2
TCRPC TOTAL	410,505	447,659	474,242	509,074	549,475	579,939	607,543	627,469	77,994	14.2

APPENDIX B

CUMBERLAND COUNTY - H	ЮЛЗЕНО	LDS (Occ	upied Dw	/elling Ur	iits)				
	dOd	/HH	CEN	sus	4	ROJECTION	S	CHG 20	0-2040
	2000	2010	2000	2010	2020	2030	2040	#	%
Camp Hill Borough	2.21	2.30	3,387	3,376	3,448	3,520	3,574	198	5.9
Carlisle Borough	2.10	2.14	7,426	7,671	8,081	8,487	8,797	1,126	14.7
Cooke Township	2.34	2.24	50	80	06	66	106	26	32.8
Dickinson Township	2.73	2.64	1,721	1,978	2,142	2,304	2,429	451	22.8
East Pennsboro Township	2.38	2.35	7,475	8,379	8,951	9,517	9,950	1,571	18.8
Hampden Township	2.48	2.44	9,577	11,470	12,469	13,467	14,241	2,771	24.2
Hopewell Township	3.02	2.96	689	786	839	891	931	145	18.4
Lemoyne Borough	2.07	2.11	1,926	2,160	2,243	2,326	2,389	229	10.6
Lower Allen Township	2.14	2.09	6,314	6,903	7,451	7,965	8,338	1,435	20.8
Lower Frankford Township	2.67	2.55	683	678	721	763	795	117	17.2
Lower Mifflin Township	2.76	2.63	586	677	731	785	826	149	22.0
Mechanicsburg Borough	2.23	2.22	4,023	4,028	4,142	4,255	4,341	313	7.8
Middlesex Township	2.61	2.47	2,298	2,570	2,780	2,987	3,146	576	22.4
Monroe Township	2.55	2.57	2,165	2,265	2,414	2,561	2,674	409	18.1
Mt. Holly Springs Borough	2.30	2.36	836	859	892	924	949	90	10.5
Newburg Borough	2.62	2.51	142	134	138	142	145	11	8.1
New Cumberland Borough	2.22	2.21	3,301	3,291	3,348	3,404	3,446	155	4.7
Newville Borough	2.31	2.45	579	542	553	564	572	30	5.6
North Middleton Township	2.48	2.51	4,039	4,378	4,719	5,055	5,313	935	21.4
North Newton Township	2.75	2.81	784	865	930	995	1,044	179	20.7
Penn Township	2.82	2.70	974	1,080	1,163	1,245	1,308	228	21.1
Shippensburg Borough	2.32	2.23	1,915	1,971	2,041	2,110	2,162	191	9.7
Shippensburg Township	2.49	2.36	860	1,205	1,394	1,581	1,725	520	43.1
Shiremanstown Borough	2.12	2.19	719	715	715	715	715	0	0.0
Silver Spring Township	2.60	2.45	4,061	5,561	6,185	6,801	7,273	1,712	30.8
Southampton Township	2.90	2.72	1,649	2,341	2,668	2,991	3,238	897	38.3
South Middleton Township	2.51	2.44	5,081	5,926	6,426	6,919	7,298	1,372	23.1
South Newton Township	2.84	2.85	455	486	514	541	563	77	15.8
Upper Allen Township	2.46	2.33	5,057	6,716	7,436	8,160	8,725	2,009	29.9
Upper Frankford Township	2.70	2.55	699	786	859	931	986	200	25.5
Upper Mifflin Township	2.98	2.73	452	477	514	550	578	101	21.2
West Pennsboro Township	2.65	2.54	1,938	2,161	2,318	2,474	2,593	432	20.0
Wormleysburg Borough	2.01	2.15	1,295	1,428	1,467	1,505	1,534	106	7.5
TOTAL - Cumberland County	2.40	2.37	83,125	93,943	100,782	107,533	112,707	18,764	20.0

_
S
÷
5
5
60
2
=
۳.
5
_
O.
.a
0
n n
5
Ŭ
0
3
$\mathbf{\Delta}$
Ä
Ξ
2
I
ш
S
ō
¥
_
1
>
Ĺ.
-
<u> </u>
2
0
Ŭ
_
Z
=
1
A
õ

	/dOd	HH/	CEN	sus	Р	ROJECTION	S	CHG 201	0-2040
	2000	2010	2000	2010	2020	2030	2040	#	%
Berrysburg Borough	2.41	2.42	144	152	155	157	159	7	4.3
Conewego Township	2.79	2.68	1,019	1,102	1,186	1,257	1,313	211	19.2
Dauphin Borough	2.53	2.38	305	333	338	342	345	12	3.7
Derry Township	2.32	2.33	8,861	9,637	10,208	10,676	10,903	1,266	13.1
East Hanover Township	2.70	2.59	1,966	2,226	2,283	2,346	2,395	169	7.6
Elizabethville Borough	2.26	2.31	579	638	647	655	662	24	3.7
Gratz Borough	2.25	2.39	301	320	332	341	349	29	9.1
Halifax Borough	2.27	2.40	386	350	355	359	363	13	3.6
Halifax Township	2.64	2.50	1,261	1,393	1,468	1,532	1,582	189	13.6
Harrisburg City	2.32	2.36	20,561	20,605	20,523	20,454	20,399	-206	-1.0
Highspire Borough	2.13	2.05	1,279	1,168	1,177	1,185	1,191	23	2.0
Hummelstown Borough	2.32	2.34	1,879	1,938	1,996	2,045	2,084	146	7.5
Jackson Township	2.64	2.62	652	742	784	820	848	106	14.3
Jefferson Township	2.46	2.41	133	150	160	168	174	24	16.2
Londonderry Township	2.60	2.56	2,004	2,041	2,138	2,220	2,285	244	12.0
Lower Paxton Township	2.35	2.34	18,584	20,085	21,257	22,324	23,447	3,362	16.7
Lower Swatara Township	2.52	2.41	3,003	3,236	3,432	3,597	3,728	492	15.2
Lykens Borough	2.39	2.30	810	774	773	772	771	-3	-0.3
Lykens Township	3.08	3.21	356	504	529	550	567	63	12.6
Middle Paxton Township	2.53	2.41	1,906	2,060	2,252	2,370	2,474	414	20.1
Middletown Borough	2.23	2.22	4,032	3,951	4,025	4,087	4,137	186	4.7
Mifflin Township	2.98	3.20	222	245	259	270	279	34	14.1
Millersburg Borough	2.11	2.14	1,213	1,193	1,199	1,205	1,209	16	1.4
Paxtang Borough	2.34	2.37	670	660	661	662	663	3	0.4
Penbrook Borough	2.32	2.35	1,307	1,278	1,296	1,312	1,324	46	3.6
Pillow Borough	2.32	2.40	131	124	125	127	128	4	3.0
Reed Township	2.46	2.46	74	97	102	107	110	13	13.8
Royalton Borough	2.44	2.33	395	390	412	431	446	56	14.4
Rush Township	2.57	2.41	70	96	100	104	106	10	10.7
South Hanover Township	2.81	2.56	1,706	2,351	2,631	2,867	3,054	703	29.9
Steelton Borough	2.53	2.60	2,312	2,292	2,288	2,285	2,282	-10	-0.4
Susquehanna Township	2.29	2.20	9,178	10,825	11,522	12,095	12,397	1,572	14.5
Swatara Township	2.37	2.35	8,703	9,237	9,688	10,069	10,371	1,134	12.3
Upper Paxton Township	2.55	2.48	1,458	1,607	1,707	1,791	1,858	251	15.6
Washington Township	2.69	2.55	756	889	934	973	1,003	114	12.8
Wayne Township	2.88	2.81	411	477	514	546	571	94	19.7
West Hanover Township	2.60	2.47	2,502	3,742	4,195	4,578	4,881	1,139	30.4
Wiconisco Township	2.45	2.42	476	499	507	514	520	21	4.2
Williams Township	2.50	2.41	454	461	475	487	496	35	7.7
Williamstown Borough	2.35	2.45	611	567	564	561	559	-8	-1.5
TOTAL - Dauphin County	2.39	2.37	102,670	110,435	115,199	119,241	122,436	12,001	10.9

-									
	POP/	НН	CEN	sus	P	ROJECTION	S	CHG 201	0-2040
	2000	2010	2000	2010	2020	2030	2040	#	%
Blain Borough	2.63	2.80	96	94	96	98	97	3	3.7
Bloomfield Borough	2.25	2.27	396	437	464	481	480	43	9.8
Buffalo Township	2.69	2.53	420	481	508	526	525	44	9.1
Carroll Township	2.69	2.55	1,897	2,068	2,215	2,306	2,300	232	11.2
Centre Township	2.62	2.60	843	916	988	1,037	1,032	116	12.7
Duncannon Borough	2.26	2.33	667	652	670	682	681	29	4.5
Greenwood Township	2.65	2.51	381	397	419	434	433	36	9.0
Howe Township	2.45	2.22	201	177	182	186	186	6	4.8
Jackson Township	2.88	2.93	182	187	196	202	202	15	8.0
Juniata Township	2.75	2.58	495	547	586	612	610	63	11.5
Landisburg Borough	2.50	2.53	78	86	87	88	88	2	1.9
Liverpool Borough	2.09	2.18	406	427	443	453	452	25	5.8
Liverpool Township	2.71	2.60	356	407	431	447	446	39	9.6
Marysville Borough	2.25	2.23	1,027	1,134	1,213	1,276	1,268	134	11.8
Miller Township	2.80	2.69	340	408	442	465	463	55	13.5
Millerstown Borough	2.47	2.66	275	253	261	266	266	13	5.1
New Buffalo Borough	2.16	2.15	57	60	64	99	99	9	9.6
Newport Borough	2.26	2.41	666	653	666	675	674	21	3.3
Northeast Madison Township	2.85	2.67	265	294	315	329	328	34	11.5
Oliver Township	2.54	2.42	811	797	830	853	851	54	6.7
Penn Township	2.48	2.45	1,159	1,260	1,325	1,368	1,365	105	8.3
Rye Township	2.74	2.60	850	910	953	985	983	73	8.0
Saville Township	2.75	2.84	796	882	940	979	976	94	10.7
Southweat Madison Township	2.93	2.98	292	335	356	371	370	35	10.3
Spring Township	2.71	2.63	746	840	894	931	928	88	10.4
Toboyne Township	2.53	2.34	195	184	196	204	203	19	10.6
Tuscarora Township	2.63	2.57	419	463	497	520	518	55	11.8
Tyrone Township	2.57	2.69	726	791	819	837	836	45	5.6
Watts Township	2.65	2.49	447	508	543	566	564	56	11.1
Wheatfield Township	2.75	2.65	1,206	1,255	1,332	1,377	1,374	119	9.4
TOTAL	2.58	2.54	16,695	17,903	18,934	19,623	19,563	1,660	9.3
TCRPC TOTAL			202,490	222,281	234,915	246,397	254,706	32,425	14.6

PERRY COUNTY - HOUSEHOLDS (Occupied Dwelling Units)

CUMBERLAND COUNTY - EMPLOYMENT

	CEN	SUS		PROJECTION	S	Change	
	2000	2010	2020	2030	2040	2010-2040	
Camp Hill Borough	9,244	4,340	4,619	4,921	5,244	904	
Carlisle Borough	14,464	13,324	14,190	15,115	16,099	2,775	
Cooke Township	4	3	3	3	4	1	
Dickinson Township	2,727	387	707	753	802	415	
East Pennsboro Township	10,528	11,228	11,963	12,739	13,567	2,339	
Hampden Township	18,125	31,038	32,764	34,896	37,167	6,129	
Hopewell Township	247	203	216	230	245	42	
Lemoyne Borough	4,390	4,536	4,831	5,146	5,481	945	
Lower Allen Township	16,274	15,821	16,850	17,947	19,116	3,295	
Lower Frankford Township	43	51	54	58	62	11	
Lower Mifflin Township	125	85	91	96	103	18	
Mechanicsburg Borough	9,246	2,614	2,784	2,965	3,158	544	
Middlesex Township	8,043	7,386	7,869	8,380	8,924	1,538	
Monroe Township	495	717	764	814	866	149	
Mount Holly Springs Borough	892	859	915	974	1,038	179	
New Cumberland Borough	1,984	1,343	1,431	1,524	1,623	280	
Newburg Borough	27	8	9	9	10	2	
Newville Borough	348	225	240	255	272	47	
North Middleton Township	1,705	1,281	1,365	1,453	1,548	267	
North Newton Township	903	360	383	408	435	75	
Penn Township	177	1,217	1,296	1,381	1,470	253	
Shippensburg Borough	3,092	1,863	1,985	2,114	2,251	388	
Shippensburg Township	1,505	1,826	1,944	2,071	2,206	380	
Shiremanstown Borough	286	456	486	517	551	95	
Silver Spring Township	6,343	8,527	9,077	9,670	10,303	1,776	
South Middleton Township	4,541	6,948	7,401	7,882	8,395	1,447	
South Newton Township	103	123	131	140	149	26	
Southampton Township	595	891	949	1,011	1,077	186	
Upper Allen Township	6,380	6,223	6,629	7,060	7,519	1,296	
Upper Frankford Township	129	45	48	51	54	9	
Upper Mifflin Township	69	51	54	58	62	11	
West Pennsboro Township	967	1,131	1,205	1,283	1,367	236	
Wormleysburg Borough	3,200	1,278	1,362	1,450	1,544	266	
TOTAL - Cumberland County	127,201	126,388	134,615	143,378	152,711	26,323	2

APPENDIX B

DAUPHIN COUNTY - EMPLOYMENT

	CEN	SUS	F	PROJECTION	S	Change	
	2000	2010	2020	2030	2040	2010-2040	
Berrysburg Borough	77	44	47	50	53	9	
Conewago Township	77	528	562	599	638	110	
Dauphin Borough	116	72	77	82	87	15	
Derry Township	21,612	26,939	28,694	30,557	32,542	5,603	
East Hanover Township	1,927	1,875	1,997	2,127	2,265	390	
Elizabethville Borough	499	312	332	354	377	65	
Gratz Borough	176	75	80	85	91	16	
Halifax Borough	181	36	38	41	43	7	
Halifax Township	1,195	802	854	909	969	167	
Harrisburg City	44,678	55,640	59,271	63,116	67,211	11,571	
Highspire Borough	343	262	279	297	317	55	
Hummelstown Borough	1,354	1,103	1,174	1,251	1,332	229	
Jackson Township	187	435	463	493	525	90	
Jefferson Township	52	59	63	67	71	12	
Londonderry Township	758	860	916	976	1,039	179	
Lower Paxton Township	20,310	25,040	26,659	28,398	30,249	5,209	
Lower Swatara Township	8,022	7,528	8,020	8,540	9,093	1,565	
Lykens Borough	635	229	244	260	277	48	
Lykens Township	128	616	656	699	744	128	
Middle Paxton Township	713	748	797	848	904	156	
Middletown Borough	2,290	3,643	3,879	4,132	4,401	758	
Mifflin Township	313	383	408	434	463	80	
Millersburg Borough	1,190	807	860	915	975	168	
Paxtang Borough	580	714	761	810	862	148	
Penbrook Borough	746	406	432	461	490	84	
Pillow Borough	62	43	46	49	52	9	
Reed Township	71	21	22	24	25	4	
Royalton Borough	77	82	87	93	99	17	
Rush Township	-	2	2	2	2	0	
South Hanover Township	482	625	665	709	755	130	
Steelton Borough	2,393	1,645	1,752	1,866	1,987	342	
Susquehanna Township	19,159	18,354	19,547	20,818	22,171	3,817	
Swatara Township	16,728	22,426	23,876	25,433	27,091	4,665	
Upper Paxton Township	1,196	1,185	1,261	1,344	1,432	247	
Washington Township	943	1,112	1,184	1,261	1,343	231	
Wayne Township	19	32	34	36	39	7	
West Hanover Township	1,605	3,045	3,243	3,454	3,678	633	
Wiconisco Township	300	328	349	372	396	68	
Williams Township	67	75	80	85	91	16	
Williamstown Borough	298	59	63	67	71	12	
TOTAL - Dauphin County	151,559	178,190	189,774	202,112	215,251	37,061	20.8

PERRY COUNTY - EMPLOYMENT

	CEN	SUS	I	PROJECTION	S	Change	
	2000	2010	2020	2030	2040	2010-2040	
Blain Borough	-	126	134	143	152	26	
Bloomfield Borough	579	815	868	924	984	169	
Buffalo Township	32	129	137	146	156	27	
Carroll Township	545	498	531	565	602	104	
Centre Township	29	232	247	263	281	49	
Duncannon Borough	248	329	351	374	399	70	
Greenwood Township	335	250	266	283	302	52	
Howe Township	371	502	535	570	608	106	
Jackson Township	144	62	66	70	75	13	
Juniata Township	103	26	28	29	31	5	
Landisburg Borough	3	41	44	46	49	8	
Liverpool Borough	57	386	411	438	466	80	
Liverpool Township	463	101	108	115	122	21	
Marysville Borough	517	473	473	473	473	-	
Miller Township	11	21	22	24	25	4	
Millerstown Borough	267	554	590	628	669	115	
New Buffalo Borough	26	25	27	28	30	5	
Newport Borough	1,057	711	758	808	861	150	
Northeast Madison Township	10	29	31	33	35	6	
Oliver Township	80	335	357	380	404	69	
Penn Township	1,548	1,784	1,930	2,088	2,254	470	
Rye Township	170	60	64	68	72	12	
Saville Township	503	485	516	550	586	101	
Southwest Madison Township	-	27	29	31	33	6	
Spring Township	405	378	402	428	456	78	
Toboyne Township	5	7	7	8	8	1	
Tuscarora Township	-	51	54	58	62	11	
Tyrone Township	341	219	233	248	265	46	
Watts Township	-	24	26	27	29	5	
Wheatfield Township	361	89	95	101	107	18	
TOTAL - Perry County	8,210	8,769	9,341	9,950	10,598	1,829	20
	296.070	212 247	222 720	255.420	270 564	65 214	- 20
	280,970	513,34/	333,/30	355,439	378,501	05,214	- 20

			2009			2009 EDU's Available			
			Capacity	2009 Rate	2009 Percent	(assuming 1 EDU =	Most Recent		Nutrient
Facility Name	County	Type	(MGD)	(MGD)	of Capaicty	400 gpd)	Modification	Receiving Stream	Credits
Carlisle	Cumberland	Authority	7.00	3.5	50.0%	6,400		Conodoquinet Creek	No
East Pennsboro Township	Cumberland	Municipal	4.40	2.65	60.0%	4,375	2010	Conodoquinet Creek	No
Hampden/Roth Lane	Cumberland	Authority	4.65	1.88	48.3%	5,344	2010	Conodoquinet Creek	No
Lemoyne	Cumberland	Authority							
Lower Allen	Cumberland	Authority	6.25	5.5537	88.5%	1,783	2010	Susquehanna River	Yes
Mechanicsburg	Cumberland	Authority	2.08	0.84	40.0%	3,100	1981	Conodoquinet Creek	No
Middlesex Township	Cumberland	Authority	1.60	0.451	29.0%	2,860	None	N/A	N/A
Mt. Holly Springs	Cumberland	Authority	0.83	0.35	42.0%	1,200	2000	Mountain Creek	No
New Cumberland	Cumberland	Authority							
Newburg/Hopewell	Cumberland	Authority	0.07	0.049	70.0%	100	2009	Newburg Run	Yes
Newville	Cumberland	Authority	0.26	0.6	43.0%	860	2009	Conodoguinet Creek	Yes
North Middlton Authority	Cumberland	Authority	1.61	1.047	65.1%	2,439	1998	Conodoquinet Creek	No
Shippensburg	Cumberland	Authority							
Silver Spring Township	Cumberland	Municipal	1.20	0.355	30.0%	2,125	2009	Conodoguinet Creek	No
South Middleton	Cumberland	Authority	1.50	0.6	40.0%	2,250	1998	Yellow Breeches Creek	Undecided
Upper Allen Township	Cumberland	Municipal	1.10	0.596	54.2%	1,260	1992	Yellow Breeches Creek	No
Berrysburg	Dauphin	Authority							
Dauphin	Dauphin	Authority	0.20	0.143	60.0%	394	None	Susquehanna River	No
Derry-Clearwater	Dauphin	Authority	5.02	3.662	73.0%	3,395	2010	Swatara Creek	No
Derry-Southwest	Dauphin	Authority	0.60	0.3	50.0%	750	None	Swatara Creek	Yes
East Hanover Township	Dauphin	Authority							
Elizabethville	Dauphin	Authority							
Gratz	Dauphin	Authority	0.12	0.041	34.2%	198	2010	Tributary to Wiconisco	No
Halifax	Dauphin	Authority	0.21	0.116	55.0%	576	2009	Susquehanna River	No
Harrisburg	Dauphin	Authority	37.70	23	61.0%	36,750	1972	Susquehanna River	N/A
Highspire	Dauphin	Authority	2.00	0.785	39.0%	3,038	2010	Susquehanna River	No
Lykens Borough	Dauphin	Authority	0.41	0.25	61.0%	400	1997	Wiconisco Creek	N/A
Middletown	Dauphin	Authority	2.20	1.278	58.0%	2,300	2010	Susquehanna River	No
Millersburg	Dauphin	Authority	1.35	0.562	42.0%	3,152	2010	Susquehanna River	No
Swatara	Dauphin	Authority	6.30	4.3	68.0%	Y/N	2009	Swatara Creek	No
Washington	Dauphin	Authority	0.05	0.036	72.0%	20	2007	Wiconisco Creek	No
West Hanover	Dauphin	Authority	0.78	0.474	60.8%	40	None	Unamed tributary of Manada Creek	Yes
Wiconisco Township	Dauphin	Municipal							
Williamstown	Dauphin	Authority	0.38	0.224	59.7%	378	2010	Wiconisco Creek	No
Bloomfield Borough	Perry	Municipal							
Duncannon	Perry	Authority							
Ickesburg	Perry	Authority							
Landisburg	Perry	Authority	0.06	0.03	43.0%	161	1994	Montour Run	N/A
Liverpool	Perry	Authority	0.175	0.07	50.0%	N/A	None	Susquehanna River	No
Loysville	Perry	Authority							
Marysville Borough	Perry	Municipal							
Millerstown	Perry	Authority							
Newport Borough	Perry	Municipal							
Penn Township	Perry	Authority							

APPENDIX C

County	Municipality	Total 2010 Households	2040 Projected Total	Scenario 1A	Scenario 1B	Scenario 2	Scenario 3	Scenario 4
Cumberland	Camp Hill Borough	3376	198	68	121	105	184	121
Cumberland	Carlisle Borough	7671	1126	1126	611	534	712	610
Cumberland	Cooke Township	80	26	26	26	26	26	0
Cumberland	Dickinson Township	1978	451	451	451	451	451	0
Cumberland	East Pennsboro Township	8379	1571	1242	509	452	919	493
Cumberland	Hampden Township	11470	2771	2999	1776	1582	2231	1753
Cumberland	Hopewell Township	786	145	145	145	152	145	0
Cumberland	Lemoyne Borough	2160	229	180	229	229	229	337
Cumberland	Lower Allen Township	6903	1435	1569	1299	1133	1526	1190
Cumberland	Lower Frankford Township	678	117	117	117	117	117	0
Cumberland	Lower Mifflin Township	677	149	149	149	149	149	0
Cumberland	Mechanicsburg Borough	4028	313	140	390	431	313	866
Cumberland	Middlesex Township	2570	576	576	576	694	576	232
Cumberland	Monroe Township	2265	409	406	456	1276	409	248
Cumberland	Mount Holly Springs Borough	859	06	06	06	06	06	162
Cumberland	New Cumberland Borough	3291	11	20	87	76	73	87
Cumberland	Newburg Borough	134	155	11	4	4	11	0
Cumberland	Newville Borough	542	30	29	30	30	29	43
Cumberland	North Middleton Township	4378	935	326	1195	1231	1142	1057
Cumberland	North Newton Township	865	179	179	179	179	179	382
Cumberland	Penn Township	1080	228	228	228	228	228	0
Cumberland	Shippensburg Borough	1971	191	161	96	84	191	96
Cumberland	Shippensburg Township	1205	520	340	247	217	319	200
Cumberland	Shiremanstown Borough	715	0	3	4	3	5	4
Cumberland	Silver Spring Township	5561	1712	1933	3861	3490	2932	3519
Cumberland	South Middleton Township	5926	897	1372	1627	1550	1579	2648
Cumberland	South Newton Township	486	1372	77	77	77	77	0
Cumberland	Southampton Township	2341	77	1077	1265	1307	1098	2019
Cumberland	Upper Allen Township	6716	2009	2211	2125	2086	2038	2125
Cumberland	Upper Frankford Township	786	200	200	200	200	200	0
Cumberland	Upper Mifflin Township	477	101	101	101	101	101	0
Cumberland	West Pennsboro Township	2161	432	433	439	432	433	585
Cumberland	Wormleysburg Borough	1428	106	54	42	36	40	42

APPENDIX D

County	Municipality	Total 2010 Households	2040 Projected Total	Scenario 1A	Scenario 1B	Scenario 2	Scenario 3	Scenario 4
Dauphin	Berrysburg Borough	152	7	۷	۷	۷	۷	0
Dauphin	Conewago Township	1102	211	211	211	211	211	137
Dauphin	Dauphin Borough	333	12	12	11	6	6	0
Dauphin	Derry Township	637	1266	1434	1454	1434	1434	1149
Dauphin	East Hanover Township	2226	169	392	392	365	392	55
Dauphin	Elizabethville Borough	638	24	54	54	54	54	545
Dauphin	Gratz Borough	320	29	57	67	52	50	0
Dauphin	Halifax Borough	350	13	13	13	13	13	0
Dauphin	Halifax Township	1393	189	189	189	189	189	0
Dauphin	Harrisburg City	20605	-206	10	-206	27	18	812
Dauphin	Highspire Borough	1168	23	53	53	23	23	74
Dauphin	Hummelstown Borough	1938	146	146	101	88	146	100
Dauphin	Jackson Township	742	106	106	106	106	106	14
Dauphin	Jefferson Township	150	24	54	77	54	24	0
Dauphin	Londonderry Township	2041	244	250	280	283	257	19
Dauphin	Lower Paxton Township	20085	3362	2945	5945	2945	2945	7474
Dauphin	Lower Swatara Township	3236	492	492	767	492	492	419
Dauphin	Lykens Borough	274	-3	E-	E-	£-	£-	8
Dauphin	Lykens Township	504	63	63	63	63	63	0
Dauphin	Middle Paxton Township	2060	414	283	787	286	286	0
Dauphin	Middletown Borough	3951	186	196	186	186	196	370
Dauphin	Mifflin Township	245	34	34	34	34	34	0
Dauphin	Millersburg Borough	1193	16	16	16	16	16	318
Dauphin	Paxtang Borough	660	3	8	T	T	1	T
Dauphin	Penbrook Borough	1278	46	32	5	4	5	5
Dauphin	Pillow Borough	124	4	4	4	4	7	0
Dauphin	Reed Township	97	13	13	13	13	13	0
Dauphin	Royalton Borough	390	56	40	20	17	33	20
Dauphin	Rush Township	96	10	10	10	10	10	0
Dauphin	South Hanover Township	2351	703	203	278	761	203	1244
Dauphin	Steelton Borough	2292	-10	-10	-10	-10	-10	18
Dauphin	Susquehanna Township	10825	1572	1635	1792	1616	1570	1388
Dauphin	Swatara Township	9237	1134	1045	1136	1080	1134	1064
Dauphin	Upper Paxton Township	1607	251	251	251	251	251	364
Dauphin	Washington Township	889	114	114	114	114	114	202
Dauphin	Wayne Township	477	94	94	94	94	94	0
Dauphin	West Hanover Township	3742	1139	1139	1139	1139	1139	1316
Dauphin	Wiconisco Township	499	21	21	21	21	21	140
Dauphin	Williams Township	461	35	35	35	35	35	38
Dauphin	Williamstown Borough	567	-8	8-	8-	8-	8-	24

APPENDIX D

2040 Regional Growth Management Plan

County	Municipality	Total 2010 Households	2040 Projected Total	Scenario 1A	Scenario 1B	Scenario 2	Scenario 3	Scenario 4
Perry	Blain Borough	94	3	3	3	3	3	0
Perry	Bloomfield Borough	437	43	43	43	43	43	86
Perry	Buffalo Township	481	44	44	44	44	44	0
Perry	Carroll Township	2068	232	237	237	237	237	387
Perry	Centre Township	916	116	116	116	116	116	290
Perry	Duncannon Borough	652	29	13	27	23	23	27
Perry	Greenwood Township	268	36	36	36	36	36	2
Perry	Howe Township	177	6	6	6	6	6	263
Perry	Jackson Township	187	15	15	15	15	15	0
Perry	Juniata Township	247	63	63	89	63	69	0
Perry	Landisburg Borough	98	2	0	1	0	0	0
Perry	Liverpool Borough	427	25	25	25	25	52	0
Perry	Liverpool Township	407	39	39	68	39	68	0
Perry	Marysville Borough	1134	134	115	115	115	115	177
Perry	Miller Township	408	55	55	22	55	22	0
Perry	Millerstown Borough	253	13	13	13	13	13	51
Perry	New Buffalo Borough	09	9	0	0	0	0	0
Perry	Newport Borough	653	21	-1	T	-1	L -	1
Perry	Northeast Madison Township	567	34	34	34	34	76	0
Perry	Oliver Township	<i>L6L</i>	54	76	74	76	92	61
Perry	Penn Township	1260	105	121	107	111	111	239
Perry	Rye Township	910	73	80	80	80	80	146
Perry	Saville Township	882	94	94	64	94	76	0
Perry	Southwest Madison Township	335	35	35	35	35	32	0
Perry	Spring Township	840	88	88	88	88	88	0
Perry	Toboyne Township	184	19	19	19	19	19	0
Perry	Tuscarora Township	463	55	55	55	55	55	0
Perry	Tyrone Township	791	45	47	46	47	47	0
Perry	Watts Township	508	56	62	62	62	62	0
Perry	Wheatfield Township	1255	119	124	124	124	124	0

APPENDIX D