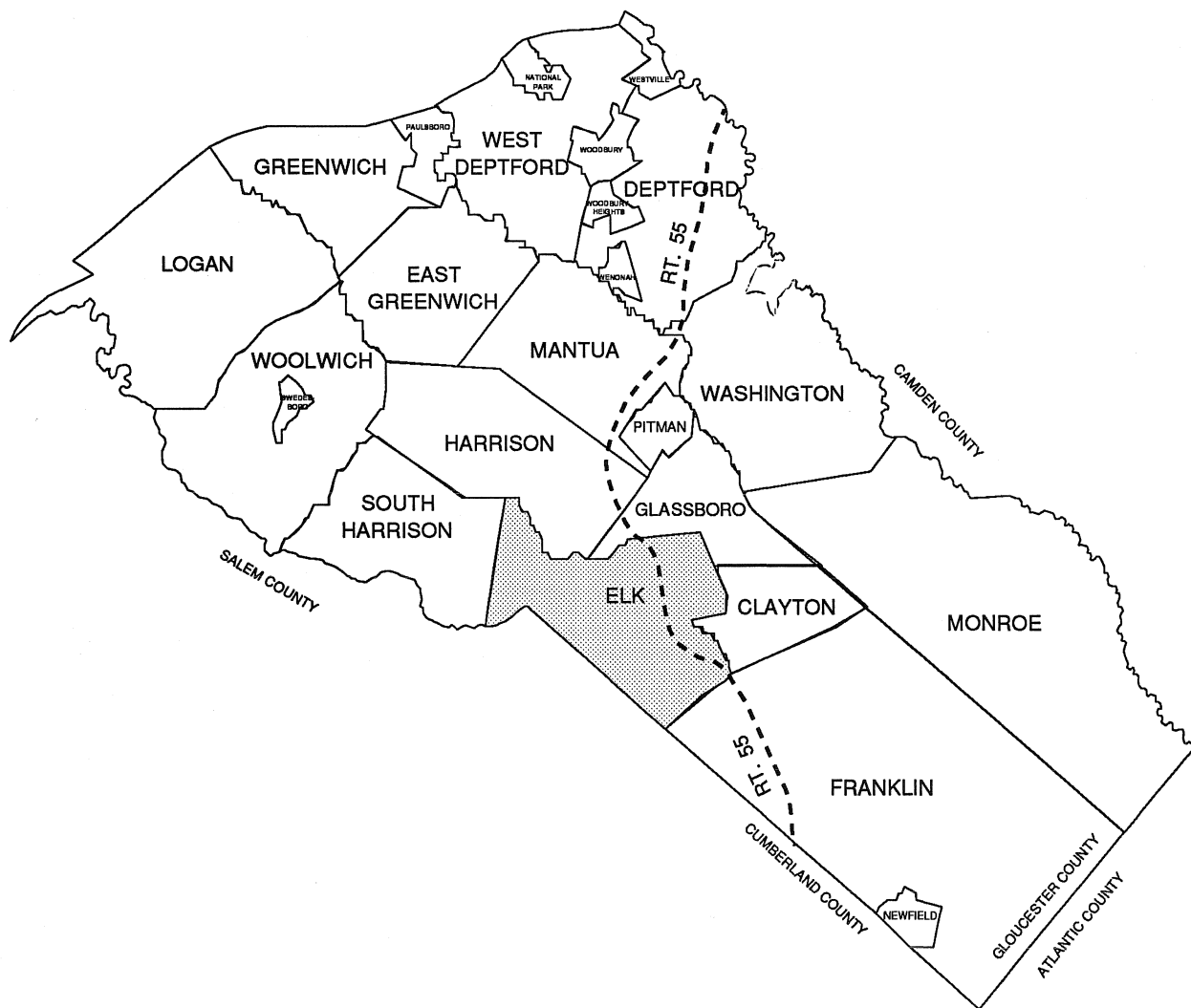


# GLOUCESTER COUNTY ELK TOWNSHIP PUD - AREA GROWTH IMPACT STUDY



DELAWARE VALLEY REGIONAL PLANNING COMMISSION

JUNE 1990



**GLOUCESTER COUNTY  
ELK TOWNSHIP  
PUD - AREA GROWTH  
IMPACT STUDY**

**Prepared by:**



**Delaware Valley Regional  
Planning Commission**

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**June 1990**

The Delaware Valley Regional Planning Commission (DVRPC) logo is adapted from the official seal of the Commission and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River flowing through it. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey. The logo combines these elements to depict the areas served by DVRPC.

Created in 1965, DVRPC provides continuing, comprehensive and coordinated planning for the orderly growth and development of the Delaware Valley region. The interstate region includes Bucks, Chester, Delaware and Montgomery counties in Pennsylvania, and the City of Philadelphia; and Burlington, Camden, Gloucester, and Mercer counties in New Jersey. The Commission is an advisory agency which divides its planning and service functions between the Office of the Executive Director, the Office of Public Affairs, and four Divisions: Transportation Planning, Strategic Planning, Regional Information Services Center, and Finance and Administration. DVRPC's mission for the 1980s is to conduct high priority short term strategic studies for member governments and operating agencies, develop a long range comprehensive plan and provide technical assistance, data and services to the public and private sector.

The preparation of this report was funded through federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Urban Mass Transportation Administration (UMTA), as well as by DVRPC's member governments.

# DELAWARE VALLEY REGIONAL PLANNING COMMISSION

## Publication Abstract

<p>TITLE</p> <p>GLOUCESTER COUNTY ELK TOWNSHIP PUD-AREA GROWTH IMPACT STUDY</p>	<p>Date Published: 1990</p> <p>Publication No. 90018</p>
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### Geographic Area Covered:

Elk Township in Gloucester County, New Jersey

### Key Words:

Route 55, PUD-Area, Capacity Analysis, Fiscal Impact Analysis, Land Use and Access Management Techniques

## ABSTRACT

Performs a development capacity analysis for the Elk Township PUD-area. Forecasts 2010 population of PUD-area. Includes review of proposed developments. Analyzes municipal expenditures and revenues necessary to support anticipated growth and development. Recommends sources of funding for municipal services. Recommends land use and access management techniques.

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## **EXECUTIVE SUMMARY**

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Elk Township lies within the growth corridor of Route 55 in southern Gloucester County. This rural community of 3,600 will be facing tremendous growth pressures over the next 20 years. Once a public sewerage and water system is in place, the township can expect substantial development to take place. In anticipation of this, Elk Township has designated a large area of the township as a Planned Unit Development (PUD) Overlay District which allows medium and high density residential development with supporting commercial and industrial development. The purpose of this study is to determine what impact the development allowed within the PUD-area will have on the township by the year 2010.

### **CAPACITY ANALYSIS**

The second chapter of this study performs a capacity analysis of the PUD-area. This analysis found the PUD-area has the capacity to support a maximum of 12,249 dwelling units at build-out the equivalent of approximately 31,000 persons. However, over the next 20 years it is estimated that the township's population will be approximately 14,000, with build-out occurring after 2010, if the PUD-area develops as anticipated.

### **FISCAL IMPACT ANALYSIS**

The consequences of this large population increase are substantial. In Chapter III a preliminary fiscal impact analysis is undertaken to determine the costs necessary to provide a sample of municipal services which will be required by a population of 14,000. These costs are compared to the property tax revenues that may be generated by the increased population. This chapter concludes that municipal expenditures necessary to provide services and infrastructure needs for a population of 14,000 will probably exceed revenues.

For example, the township's estimated population of 14,000 will require approximately \$1.8 million (at 1990 rates) to collect and dispose of garbage and trash, as compared to \$156,700 in 1988. Expenditures for other services, such as police, fire, and roads maintenance will also be substantially higher than today.

It is estimated that the population of 14,000 will generate approximately \$9 million in property taxes, based on the current per capita tax rate. Assuming the current distribution of property taxes, 30% of the \$9 million will go directly to Gloucester County to help fund county operated programs and services. Therefore, of the estimated \$9 million, approximately \$6.2 million will be available to fund Elk Township's municipal

services, the Elk School District, and the Regional School District. Although all of the municipal expenditure and revenue figures are gross estimates and subject to change, the fact remains that a substantial gap between municipal expenditures and revenues will exist unless alternative revenue sources are found.

## **RECOMMENDATIONS**

The Recommendations chapter of this study is divided into two sections: Future Revenue Sources and Land Use and Access Management techniques. Since municipal expenditures are expected to exceed municipal revenues by 2010, Elk Township must find alternative sources of revenues to finance the municipal service needs of new residents and employees. One possible solution may be for Elk Township to form a Transportation Development District (TDD) within the PUD-area. Under the new TDD legislation, developers within the TDD would be required to finance the cost of off-site road improvements associated with their developments.

Additionally, the proposed New Jersey Municipal and County Development Impact Fee Authorization Act (Senate Bill 2037), if passed, will give municipalities and counties the legal means to charge developers impact fees for non-transportation improvements. The Act would allow municipalities to charge developers fees for numerous services such as education, public safety and recreation, that are needed as a direct result of the developer's project.

In addition to finding alternative revenue sources, Elk Township must strengthen its planning tools. The study recommends land use and access management techniques designed to better coordinate development within the PUD-area. For example, the study recommends the township adopt a Capital Improvements Plan and an Official Map. The study also recommends that the township adopt a circulation plan which establishes a road hierarchy and incorporates public transit opportunities.

The study also recommends review and possible amendments to the township's PUD Ordinance and other zoning ordinances. Additionally, the development review process should be reviewed and amended to ensure all PUD proposals include detailed traffic impact studies and fiscal impact studies. These and other recommended planning tools will enable the township to phase development with infrastructure needs and site land uses appropriately to most efficiently utilize public transportation and infrastructure systems.

Elk Township has the unique opportunity to have all planning and financing mechanisms in place before a substantial amount of development takes place. If township officials act now, the Elk Township of the future can be a well planned community which is attractive to existing and future residents, employers and employees.

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## I. INTRODUCTION

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Elk Township is located in the south central portion of Gloucester County and is bounded by Glassboro and Harrison Township to the north, Clayton Borough to the east, Franklin Township and Salem County to the south and South Harrison Township to the west. Elk Township is approximately 30 miles south of Philadelphia and Camden City and approximately 20 miles north of the Vineland-Millville area (see Figures I and II).

The 20 square mile township is primarily an agricultural community. However the recent completion of Route 55 (opened September 1989) which traverses the township, will change the rural nature of Elk. Route 55 provides north-south access through Gloucester County from New Jersey Route 42 in Camden County to New Jersey Route 47 in Cumberland County. This highway is important to Elk Township and Gloucester County because it provides direct access to employment centers in Philadelphia and northern Camden County. The southern section of Route 55, from U.S. Route 40 in Gloucester County to New Jersey Route 47 in Cumberland County, has been open to traffic since the 1970s. Two Route 55 interchanges are within or close to Elk Township: 1) Route 641 (Ellis Mill Road) in Glassboro; and 2) Route 553 South (Buck Road) in Elk Township.

### **REGIONAL GROWTH CORRIDOR DESIGNATION**

Due to the presence of Route 55, Elk Township lies within a regional development corridor as identified by the New Jersey State Planning Commission and the Delaware Valley Regional Planning Commission.

According to the New Jersey State Planning Commission's Preliminary State Development and Redevelopment Plan (PSDRP), development corridors are defined as follows:

... those growing transportation routes where growth should be organized in and around centers along the corridor. They satisfy all the following criteria:<sup>1</sup>

1. A linear transportation corridor anchored by a city or the intersection of principal transportation routes, with primary and secondary access networks. The access networks both parallel and intersect the corridor. A

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<sup>1</sup>New Jersey State Planning Commission, The Preliminary State Development and Redevelopment Plan for the State of New Jersey, Volume II, November 1988.

principal transportation route is a highway of four or more lanes, a rail line, or both;

2. A strong existing and projected real estate market demand for employment, commerce and housing along the transportation corridor;
3. Sufficient supply of real property to accommodate the projected market demand for new development in the corridor to the year 2010; and
4. The primary transportation route crosses municipal boundary lines.

The draft State Plan continues by listing several examples of development corridors statewide. Among the examples listed are "Route 55 from the Camden metro area to Millville."<sup>2</sup> Although the entire length of Route 55 is listed, this does not necessarily mean the entire length meets the above criteria. During the cross-acceptance process, counties and municipalities were instructed to identify corridors and corridor centers to be included in the final State Plan. Since Route 55 and I-295, both in Gloucester County, meet the above four criteria, the county designated both areas as regional development corridors.

The county further recommended three growth corridor centers within these corridors: 1) I-295 - Logan Township; 2) Route 55 - Deptford Township; and 3) Route 55 - Elk Township/Borough of Glassboro. Elk Township's municipal cross-acceptance report is in agreement with Gloucester County. That is, the township agrees that it is part of the Route 55 development corridor and should be listed as a growth center.

The Delaware Valley Regional Planning Commission has also designated the I-295 and Route 55 Corridors as regional growth areas in the DVRPC Year 2010 Regional Development Strategy (RDS). The RDS forecasts Gloucester County to be one of the fastest growing counties within the nine-county region. As Table I shows, the county's population and employment growth by 2010 is forecast to substantially outpace the growth rate of the entire region. Between 1980 and 2010, Gloucester County's population is forecast to increase by 37% second only to Bucks County and the number of jobs in Gloucester County is forecast to increase by 59%, the highest growth rate among the nine counties in DVRPC's region. Much of this growth is expected within the county's two primary growth corridors: 1) I-295 and 2) Route 55.

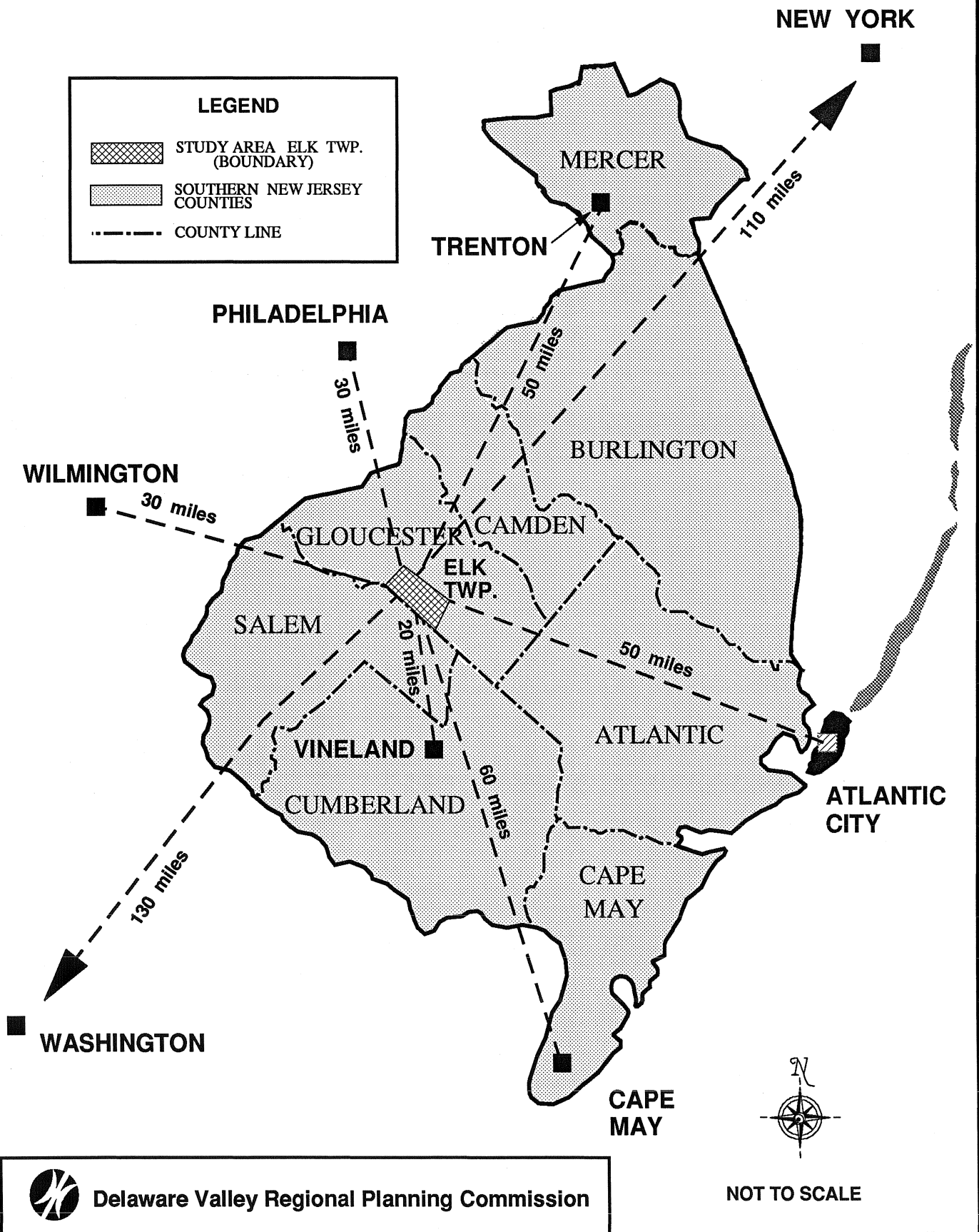
## **STUDY PURPOSE**

Traditionally, the opening of a new highway creates pressure within the surrounding communities for new development on vacant land. The accessibility provided by the new highway also creates pressure for development to occur at a greater intensity than existed

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<sup>2</sup>Ibid.

# FIGURE I ELK TOWNSHIP REGIONAL LOCATOR MAP





## FIGURE II



 ELK TOWNSHIP  
 PUD - AREA WITHIN ELK TOWNSHIP





**TABLE I**  
**POPULATION AND EMPLOYMENT FORECASTS**  
**DVRPC REGION**

<u>County</u>	<b>POPULATION</b>			<b>EMPLOYMENT</b>		
	<u>1980 Census</u>	<u>2010 Forecast</u>	<u>% Change</u>	<u>1980 BEA*</u>	<u>2010 Forecast</u>	<u>% Change</u>
Bucks	479,211	701,700	46.4%	196,000	287,100	46.5%
Chester	316,660	418,950	32.3%	145,500	205,700	41.4%
Delaware	555,007	564,140	1.7%	211,900	240,300	13.4%
Montgomery	643,621	746,600	16.0%	392,400	544,800	38.8%
Philadelphia	1,686,210	1,545,100	-8.5%	858,400	878,000	2.3%
PENNSYLVANIA TOTAL	3,682,709	3,976,500	8.0%	1,804,200	2,155,900	19.5%
Burlington	362,542	494,000	36.3%	138,200	216,100	56.4%
Camden	471,650	589,750	25.0%	196,500	270,000	37.4%
<b>GLOUCESTER</b>	<b>199,917</b>	<b>273,130</b>	<b>36.6%</b>	<b>65,500</b>	<b>103,800</b>	<b>58.5%</b>
Mercer	307,863	386,000	25.4%	189,500	253,400	33.7%
NEW JERSEY TOTAL	1,341,972	1,742,900	29.9%	589,700	843,300	43.0%
REGIONAL TOTAL	5,024,681	5,719,400	13.8%	2,393,900	2,999,200	25.3%

\*Bureau of Economic Analysis

Source: Delaware Valley Regional Planning Commission, Population and Employment Forecasts, July 1988



previously. Additionally, much of the vacant land surrounding Route 55 is considerably less expensive than land in neighboring Camden and Burlington counties, thereby encouraging development southward into Gloucester County.

In recognition of the township's new growth potential, Elk Township has adopted a Planned Unit Development (PUD) Overlay District adjacent to Route 55. The PUD encompasses approximately 6,600 acres between Routes 609 and 538 and the township's northern and eastern boundaries. The PUD allows medium and high-density mixed-use developments on parcels of 150 or more acres (see Figure II).

This study was initiated to understand the land use and fiscal impacts that the PUD Overlay District would have on Elk Township. Specifically, this study was designed to accomplish the following objectives:

1. Identify the development capacity of the Elk Township PUD-area by 2010;
2. Determine preliminary infrastructure and service needs given the development capacity of the PUD-area; and
3. Recommend land use and access management policies to accommodate future development within Elk Township's PUD-area.

## **STUDY APPROACH**

This study was designed to assess the impact of the Elk Township PUD Overlay Zone Ordinance on the township. Since the PUD Ordinance is applicable only to a specific area within the township, the development potential of the remainder of the township is not included in this study. The remainder of the township is zoned for agricultural and low density uses and is not part of the township's proposed sewer service area. For these reasons, development outside the PUD-area will have a minimal impact on the township overall.

This study assumes the PUD-area will develop per the PUD Overlay Ordinance and not per the underlying zoning districts. This assumption was made for two reasons. Firstly, the medium and higher densities allowed under the PUD ordinance are more attractive to developers than the low densities of the underlying districts. Secondly, a preliminary review of the underlying districts showed insignificant development potential. The majority of the PUD-area lies within agricultural and low density residential zones of one to two dwelling units per acre. These densities do not allow development that is any more intensive than found in currently developed areas of the township. DVRPC's forecasted population for the entire township shows a 64% increase between 1990 and 2010, (3,680 to 6,030) if the township does **NOT** develop under the PUD ordinance. While this growth

rate is significant, the impact on the township may not be that great since a total population of 6,000 is relatively small. However, the development potential of the PUD-area will have a significant impact on the entire township.

The influence of the PUD-area will be felt beyond its zoning boundaries. That is, those areas outside the PUD-area will experience secondary impacts, such as increased traffic volumes from the PUD-area developments and possibly pressure to develop at a faster rate than if the PUD zoning did not exist. The township must be careful that development pressures generated by the PUD-area do not cause poor planning within the township's non-PUD zoning districts.

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## II. PUD-AREA CAPACITY ANALYSIS

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To realistically as possible determine the impact the PUD ordinance will have on Elk Township, the population of the PUD-area must be known. The size of the population is based on several factors: (1) developable acres; (2) allowable densities; and (3) average household size. This chapter determines the PUD's potential population by examining the above three factors and by reviewing proposed major developments within the PUD-area.

In order to calculate the total population the PUD could support at build-out the Elk Township Planned Unit Development Ordinance, adopted October 1, 1987, was analyzed. The maximum dwelling unit densities and minimum open space requirements of the ordinance were applied to the gross area of the PUD (per the ordinance).

### DEVELOPABLE ACRES

Based on measurements of the study area with a graphics calculator, the total study area (the PUD overlay district) encompasses 6,652 acres of land. Of this total acreage, approximately 1,725 acres are in wetlands and 814 acres are developed (non-agricultural uses).<sup>3</sup>

#### Residential Area

The PUD Ordinance stipulates that a minimum of 20% of the gross area of the PUD be used for commercial or industrial uses. Since the ordinance does not stipulate the minimum area to be used for residential and institutional uses, it is assumed to be 80% for purposes of this study. This assumption is justifiable since the need for institutional uses (schools, fire and police buildings, libraries, etc.) is typically based on residential population.

With these requirements in mind, a minimum of 5,322 acres is required for residential uses. Of this acreage at least 25% must be usable open-space, the equivalent of 1,330 acres. This leaves approximately 3,992 acres available for residential development.

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<sup>3</sup>With the use of a graphics calculator, which measures acres, DVRPC staff calculated the total area of the PUD, the total area of all wetlands and the total area of all developed areas. The area calculations were based on the Elk Township Natural Resource Inventory, "Composite of Buildable Lands" map, prepared in 1989.

### Commercial and Industrial Area

As stated earlier, the PUD ordinance requires a minimum of 20% of the PUD gross acres to be in commercial or industrial uses, the equivalent of 1,330 acres. A minimum set-aside of 25% of gross acreage for open-space is required (333 acres). The ordinance does not stipulate that this open space be usable, therefore it is assumed to be non-usable open space. This leaves approximately 997 gross acres available for commercial and industrial development.

### Total Open Space Requirement

The PUD Ordinance specifies that a minimum of 35%, 2,328 acres of the PUD's gross area, be set aside as open space (excludes travel ways). Additionally, 35% of the set aside, 815 acres, must be usable open-space (excludes bodies of water, wetlands, excessively sloped areas, etc.)

As mentioned above a minimum of 1,330 acres in the residential sections of the PUD must be usable open space and 333 acres of open space is required in the commercial and industrial sections for a total of 1,663 acres dedicated to open space.

Although the overall requirement of 815 usable open space acres is met by the residential open space set-aside the total minimum open space requirement of 2,328 acres is not met by the minimum open space requirements of the residential and commercial and industrial sections of the PUD. Therefore an additional 665 acres must be set-aside for open space. Assuming even distribution of wetlands and open space, 80% of the 665 acres (532 acres) should be included within the residential sections of the PUD and the remaining 133 acres should be set-aside in the commercial and industrial sections of the PUD.

This additional open space acreage plus any non-usable open-space acres can be obtained by including wetland acres into the PUD-area. Of the study area's 1,725 acres in wetlands, 998 acres can be included as non-usable open space, leaving 727 wetland acres which should not be used in population calculations since they are not developable.

If it is assumed that the wetlands are evenly distributed throughout the study area, 80% (582 ac) of the 727 wetland acres should be excluded from the developable acres in the residential sections of the PUD and 145 acres (20%) should be excluded from the commercial and industrial sections of the PUD.

### Existing Developed Area

Based on the graphics calculator, approximately 814 acres within the PUD are developed. This acreage should, therefore, be eliminated from the vacant acres available for

development. Assuming an even distribution of developed acres, 651 acres (80%) and 163 acres (20%) should be removed from the developable acreage within the PUD's residential and commercial and industrial sections, respectively.

### Summary

In summary, the PUD overlay area has approximately 2,783 acres available for development. Based on the requirements of the PUD Ordinance, an approximate maximum of 2,227 acres are available for residential development and a minimum of 556 acres are available for commercial and industrial uses.

The developable area excludes wetlands, open space requirements and developed areas. However, it does not exclude land which must be reserved for travel ways, drainage ways, easements, etc. Reliable calculations for these uses are not available until preliminary development proposals are available. However, as a general rule-of-thumb, a typical development requires 20-30% of its acreage for travelways.

### **DWELLING UNIT DENSITY**

As stated previously, the PUD-area has the potential to support approximately 2,227 acres of residential development. The PUD Ordinance establishes maximum residential density standards and a minimum and maximum dwelling unit mix for three types of housing development:

- Single family detached - 4.5 dwelling units per acre; 15%-20% of total dwelling units
- Townhouses - 8 dwelling units per acre; 25%-50% of total dwelling units
- Garden apartments - 16 dwelling units per acre; 25%-50% of total dwelling units

However, the PUD ordinance also stipulates that the maximum gross residential density for any one phase of the proposed PUD project shall be 5.5 dwelling units per gross acre. Given the maximum density of 5.5 dwelling units per acre, **the residential portion of the PUD would accommodate 12,249 housing units at build-out.**

At this point, it must be noted that the PUD Ordinance density standards are based on gross acres. However, due to the substantial amount of wetlands within the PUD-area, this analysis applied the maximum gross acres density to the net residential acres. Although this method shows less housing units, it is more realistic for several reasons. First, the allowable densities are maximums. Given the currently rural nature of the study area it is not likely that developers will build to the maximum allowable densities. This is evident in most of the developments proposed within the PUD-area (see page 16). Secondly, 25% of all dwelling units must be single-family detached units which has a

maximum allowable gross density of 4.5 dwelling units per acre. Third, the developable acres analysis does not consider land that must be set-aside for infrastructure needs such as roads, drainage, and utilities. This figure is typically 20%-30% of gross acres. For these reasons, the maximum gross density of 5.5 dwelling units per acre is probably more realistically applied to the net residential acres.

## **POPULATION ESTIMATES AT PUD BUILD-OUT**

According to the 1980 Census, the population of Elk Township was 3,187. Between 1980 and 1989, 163 residential building permits were issued in the township. The estimated 1985 median household size in Elk Township was approximately 2.65 persons, therefore the 163 new dwelling units added approximately 432 persons to Elk's 1980 population.<sup>4</sup> Therefore, the Township's current population is approximately 3,619. This is comparable to the DVRPC's 1990 forecasted population of 3,680. The DVRPC's 2000 and 2010 forecast for Elk is 5,130 and 6,030 persons, respectively.<sup>5</sup>

The DVRPC forecasts did not take into consideration the development potential of the PUD. It is therefore necessary to estimate the number of persons that could potentially live within the PUD-area at build-out.

Given the PUD's estimated potential to support a maximum of 12,259 dwelling units and the township's 1985 estimated median household size of 2.56, **the PUD's estimated population at build-out would be 31,383.**

## **PROPOSED DEVELOPMENTS**

Since the creation of the PUD Ordinance, several landowners have informally proposed large projects within the PUD overlay district. Although the formal development review process has not started on any of the proposed developments, they must be considered in any analysis of the PUD-area's infrastructure and service needs.

None of the proposed developments can be constructed without sewage treatment capacity. Although this issue has not been resolved, this analysis assumes public sewerage and water will be available prior to 2010.

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<sup>4</sup>The 1980 Census found Elk Township's median household size was 2.66 persons. The U.S. Census Bureau estimated household size between 1980 and 1985 decreased by .1, thus bringing Elk's estimated 1985 median household size to 2.56 persons.

<sup>5</sup>Delaware Valley Regional Planning Commission, 1990, 2000, 2010 Population and Employment Forecasts, July 1988.



It is also assumed that the proposed developments will require ten to 15 years to complete, as is the case with most large planned developments. Taking into consideration market conditions, the approval and construction of a sewerage system, a public water system and approval and construction of the proposed developments, build-out of the proposed developments is assumed to be 2010.

What follows is a brief description of each proposed development. This analysis does not comment on the merits of each proposal. This type of analysis is outside the scope of this study and is best left to the county and the township and its planning and engineering consultants. Figure III shows the approximate location of the proposed developments.

#### Hughes PUD

The proposed Hughes PUD is located within the triangle formed by Routes 623, 619 and 609 and along the south side of Route 619, adjacent to the proposed Weber PUD. To date, no proposals or sketch plans for this proposed PUD have been received by the township (see Figure II, Location A).

The Hughes PUD consists of 750 acres, some of which is wetlands. The Elk Township Wastewater Management Plan estimates 1,875 dwelling units can be supported by this site. This number of dwelling units assumes a density of 2.5 dwelling units per acre. Given the site's wetlands and the PUD Ordinance's open space and commercial/industrial set-aside requirements, this density may be more accurate than the PUD Ordinance's maximum gross density of 5.5 dwelling units per acre.

#### Quaker Group (Silvergate) PUD

The Quaker Group PUD is proposed on 694 acres, 35 acres are located in the Borough of Clayton. The PUD consists of several sites concentrated near the intersection of Routes 553 and 610 (see Figure III, Location B). At the present time, the developer is designing a development plan. To-date, no plans have been submitted to the township for review.

The current development plan includes 1,100 dwelling units and approximately 460,000 square feet of non-residential space. The project may be phased in over 11 years, depending upon market conditions.

The residential element of the PUD will include a mixture of housing types, including single-family detached, townhouse and twin homes and multi-family garden apartments. The non-residential element of the proposed PUD includes 300,000 square feet of retail space, two office buildings of 33,500 and 57,800 square feet and a 67,000 square foot office condominium.

### Smith PUD

The proposed Smith PUD is located on 461.9 acres among three sites. The majority of the proposed development is located between Routes 667 and 623 at their intersection; the second largest site is located between Route 667 and Route 55; and the third section is located between Route 55 and the railroad tracks (see Figure II, Location C).

Of the four PUD proposals, this one appears to be the furthest along in the development process. However, only a conceptual site plan has been reviewed (May 1989) by the Elk Township PUD committee. According to the conceptual plan, the site can support 1,554 dwelling units after setting aside 20% of the gross acreage for commercial/industrial uses and 35% for open space leaving 240 acres available for development at a net density of 6.5 dwelling units per acre. However, the dwelling unit calculation does not take into consideration the wetlands on the site which may reduce the number of dwelling units.

### Weber Adult Community PUD

The Weber PUD is located on a 350 acre site between Routes 619, 609, 538 and the railroad tracks, adjacent to the southern boundary of the proposed Hughes PUD. This site includes a considerable amount of wetlands which will restrict its development potential (see Figure III, Location D).

The developers of the Weber site have proposed the development of an adult community. To accommodate this request, the Elk Township Planning Board is currently reviewing a proposed adult community ordinance. The proposed ordinance allows an Age Restricted Community (ARC) within the township's R-2 Low-Moderate Density Residential/Agricultural Zone as a conditional use.

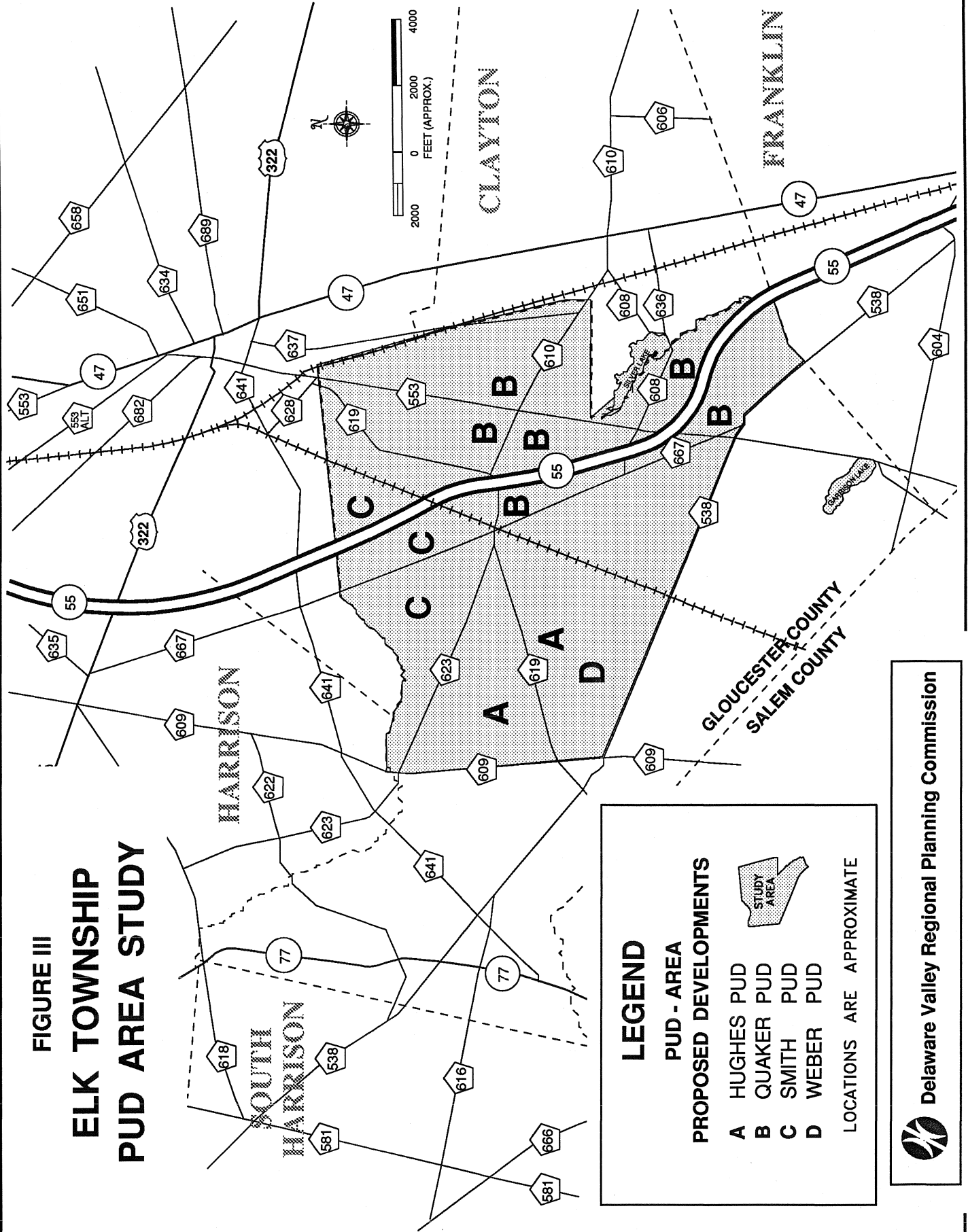
The proposed ARC ordinance requires a minimum tract size of 200 acres and a maximum density of four dwelling units per adjusted acre (excludes wetlands). The ARC is limited to persons 55 years of age or older.

The proposed Weber PUD includes 750 dwelling units yielding a density of approximately 2.1 dwelling units per gross acre. At the present time, no plans are before the township for approval. Adoption of the proposed ARC Ordinance is necessary prior to review of the proposal by the township.

## **SUMMARY**

One of the objectives of this study is to calculate the development capacity of the PUD-area over the next 20 years. Due to changes in market conditions (interest rates, financing sources, etc.), competition from within and outside the region and consumer demands, it is unlikely that the PUD-area's built-out population of 31,383 will be realized

**FIGURE III**  
**ELK TOWNSHIP**  
**PUD AREA STUDY**





by 2010. It is therefore necessary to estimate what percentage of the build-out population might live in the PUD-area by 2010.

Over the next 20 years it is likely that the four currently proposed developments will be completed. Since these proposed developments will add 5,279 new dwelling units to the township, it is doubtful that the market will be able to absorb additional dwelling units over the same time period. Based on available information, the four proposed developments may generate a population of approximately 13,514. This population represents approximately 43% of the PUD's total built-out population of 31,383. Given the development potential of Gloucester County and the Route 55 Corridor and the desire of the state, county and township to concentrate development along Route 55 and within Elk Township, it is reasonable to assume the **PUD-area's total 2010 population may be approximately 14,000.**

This population is approximately 287% higher than the estimated 1990 population of 3,619. The consequences of this dramatic population increase on the township's infrastructure and service needs are staggering, as the following chapter shows.



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### **III. FISCAL IMPACT ANALYSIS**

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New development has an immediate impact on a community in terms of revenues generated and costs to the municipal government in supplying new residents with public facilities and services. Through the use of "fiscal impact analysis" a municipality can estimate the cost of providing services to a new development and the amount of revenues it will generate. By using simple per person costs or industry-accepted standards, the municipality can determine what new public facilities and services will be needed and the approximate cost to the municipality and its residents (through increased taxes) necessary to accommodate new residents.

This chapter performs a preliminary fiscal impact analysis for the Elk Township PUD-area which is based on a population of 14,000 by 2010. This analysis examines the cost of services which will be demanded by the new residents and the amount of tax dollars (property taxes only) which the municipality might collect from the increased population.

The purpose of this preliminary fiscal impact analysis is to demonstrate the effect new growth can have on a community. This analysis is a demonstration only and is by no means complete since it is based on several assumptions which may or may not hold true by 2010. Additionally, only a small sample of government services are included in this analysis. An accurate fiscal impact analysis should include all elements of municipal expenditures and revenues and should, ideally be done for every major development proposal. All expenditures and revenues are in 1990 dollars, unless otherwise noted.

#### **MUNICIPAL EXPENDITURES**

The following is a preliminary analysis of the possible costs associated with providing selected public facilities and services. Although the complete costs associated with the following services are not included in this analysis, the reader should have a clearer understanding of the tremendous costs a municipality must incur to support new development. The following services typically comprise the largest expenditures for a municipality and are therefore included in this analysis:

- public works
- public safety
- schools

Table II and Figure IV show Elk Township's expenditures for 1988, the latest year available.

## PUBLIC WORKS COSTS

As Figure IV shows, Elk Township spent 37% of its 1988 expenditures on public works projects. The majority of these costs were for the maintenance and repair of roads and drainage ways and the disposal of garbage and trash. Costs associated with trash disposal and streets and drainage accounted for 37% and 49%, respectively, of the township's \$425,000 1988 public works expenditures. Other public works expenditures in Elk Township were for public buildings and grounds and sewers.

### Sewage Treatment

Elk Township currently has no public sewage treatment facilities. All sewage is treated by individual on-site septic systems. However, Elk Township has applied to the Gloucester County Utility Authority (GCUA) to include the PUD-area of the township in the GCUA's sewer service area (only the northeast corner of the township is currently included within GCUA's consolidated region). In anticipation of the township's future wastewater treatment needs, seven sleeves to carry wastes were provided under Route 55 to enable a future system to be inter-connected. The township's Wastewater Management Plan has been reviewed by the New Jersey Department of Environmental Planning (DEP), but cannot be approved without a commitment from the GCUA (or another source) to provide wastewater treatment.

The GCUA's service area currently includes contracts with 14 municipalities which includes approximately 75% of Gloucester County's population and approximately 60% of the county's land mass. Elk Township is not part of this service area. For this reason, the 201/208 Tri-County Water Quality Management Plan for the South Jersey Tri-County Region (Camden, Burlington, and Gloucester counties) must be amended. Amending the 201/208 Plan requires approval from the DEP.

In order to accommodate Elk Township's request, the GCUA must expand its existing facility or build a new facility. The GCUA is currently undertaking a facilities needs assessment, which consists of three parts:

1. an evaluation of the current facility;
2. evaluation of system needs to the year 2010; and
3. evaluation of the timing and location of new facilities to the year 2010.

The 201/208 Plan allows the GCUA a total capacity of 24 million gallons per day (mgd). The facility currently operates at 18 mgd, however the remaining 6 mgd have been committed to the 14 municipalities which are currently part of the GCUA service area.

The costs associated with expanding the GCUA facility beyond its current capacity of 24 mgd are extremely high. An alternative solution may be to build another wastewater



**TABLE II**  
**ELK TOWNSHIP**  
**MUNICIPAL FUNCTIONS EXPENDITURES**  
**1988**

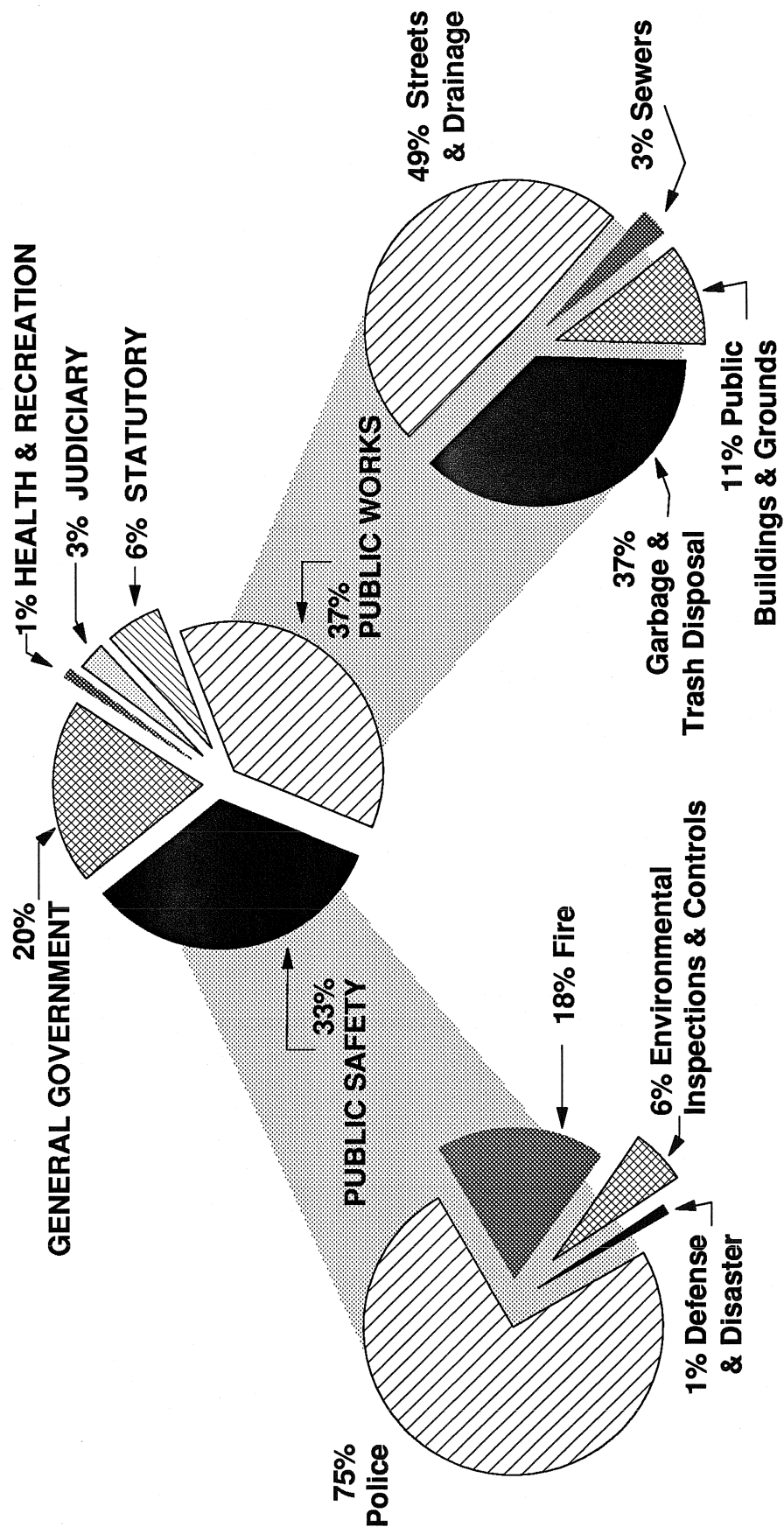
<u>Function</u>	<u>Amount</u>	<u>% of Total</u>
Public Works	\$ 425,405	37%
Public Safety	\$ 376,415	33%
General Government	\$ 223,039	20%
Statutory	\$ 65,000	6%
Judiciary	\$ 29,900	3%
Health and Recreation	\$ <u>18,300</u>	<u>1%</u>
TOTAL EXPENDITURES	\$1,138,059	100%

Source: New Jersey Department of Community Affairs

Delaware Valley Regional Planning Commission, June 1990



**FIGURE IV**  
**ELK TOWNSHIP MUNICIPAL FUNCTIONS EXPENDITURES**  
**1988**





treatment facility in Gloucester County. This option may have to be seriously considered if Elk Township is to be part of a public wastewater treatment system.

Although it is not known when or how Elk Township will have wastewater treatment capacity, this study assumes capacity will be available by 2010, if not sooner. This study also assumes the PUD-area cannot be built to the densities allowed in the PUD Ordinance without sufficient wastewater treatment capacity.

The Township's Wastewater Management Plan<sup>6</sup> assumes, on average, that each new dwelling unit will require treatment capacity for 250 gallons per day (gpd). If the proposed 5,500 dwelling units within the PUD-area are constructed, Elk Township will:

**Need:     5,500 dwelling units @ 250 gpd = 1.375 mgd**

In addition to the costs associated with being part of a regional sewage treatment facility, Elk Township will have to build and maintain a local sewer system to collect and transport township wastes to the regional system. The costs associated with a sewer system are beyond the scope of this study.

#### Garbage and Trash Disposal

Waste disposal costs have risen significantly in New Jersey in recent years and are expected to continue to rise. In many areas landfills have reached or are reaching capacity and increasing environmental concerns have prompted municipalities to find alternative means of disposing of household trash.

Elk Township's trash is disposed of at the Wheelabrator Technologies, Inc. resource recovery plant in West Deptford Township. The most expensive cost associated with most trash disposal is the tipping costs, or fees paid directly to landfills or resource recovery plants to dispose of the trash. Currently, all Gloucester County municipalities pay \$58.72 per ton to Wheelabrator in tipping fees. However, this tipping fee is what was charged to dispose of trash at the South Harrison landfill which has reached capacity. Although the Wheelabrator facility has been operating since January 1990, the New Jersey Board of Public Utilities (BPU) has not approved their request for a rate increase. The BPU is currently reviewing a request to raise the tipping fee to \$99 per ton. In May 1990, the BPU approved an interim rate increase of \$86.54 per ton, raising all municipal trash disposal rates in Gloucester County by 47%.

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<sup>6</sup>Sickels and Masteller, Inc., Elk Township Wastewater Management Plan, October 1989.

Currently, Elk Township averages approximately \$13,700 per month (\$165,228 annually) for trash disposal or approximately \$3.88 per capita as follows:<sup>7</sup>

<u>Monthly Cost</u>	<u>Service</u>
\$ 4,608	Garbage pick-up
\$ 3,018	Pick-up of recyclables
\$ 5,863	Tipping fee
\$ 280	Newspaper disposal
<b>\$13,769</b>	<b>Total</b>

By comparison, in 1985, the township spent only \$39,600 for garbage and trash disposal, or \$3,300 per month. The 1988 cost for garbage and trash removal was \$156,700.

The Gloucester County Department of Planning estimates 6.4 pounds of trash is produced per person per day. With a population of 14,000, Elk Township's PUD-area residents may produce approximately 1,344 tons of trash per month, as compared to the township's current trash generation of approximately 107 tons per month. Assuming the current interim tipping fee of \$89 per ton and the current monthly per capita fee of \$2.26 for disposal costs other than the tipping fee, Elk Township will:

**Need: \$151,256 per month or \$1,815,072 annually for trash disposal costs**

### Roads

The maintenance and repair of streets can be costly depending upon the age, condition and mileage of township-owned roadways. Most roads in Elk Township are county-owned. Additionally, the township does not have an extensive road network because of its rural nature.

In 1988, Elk township spent \$208,000 on roads and drainage, representing 49% of all public works expenditures. As the township suburbanizes, expenditures for roads will increase. Once large farms are subdivided, more local roads and related travelways will be needed to provide access to new developments and county roads. The number and type of roads will depend upon the location of proposed developments and the amount of traffic they will generate. Although many new roads will be built by developers to service these developments, the township will probably have to maintain and repair these roads once the development is completed, and the county may have to improve existing county roads to support traffic generated by new development. As Table III shows, traffic

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<sup>7</sup>Information obtained from the Elk Township Clerks Office for April 1990. The tipping fee of \$59/ton is expected to increase significantly.

generated by new development varies considerably between different land uses. This table shows average weekday trips, however as a general rule-of-thumb 8%-10% of all weekday traffic occurs during the afternoon peak period (the percentage during the morning peak period is slightly less).

The construction, maintenance and repair of roads is expensive. For example, the NKDOT, in 1988, published the following suburban road costs:<sup>8</sup>

- Two-lane road  
new construction \$320,000-\$400,000/lane/mile
- Four-lane; divided  
new construction \$550,000/lane/mile  
resurfacing \$85,800/lane/mile  
annual maintenance \$3,000/lane/mile
- Signalized Intersection  
signal hardware \$100,000  
roadway improvements \$200,000+

A detailed analysis of Elk Township's roadway needs can be found in a companion report to this study. During FY90 the staff of the Transportation Division of DVRPC began work on a transportation study along the Route 55 Corridor in Gloucester County. The purpose of this study is to identify existing and future roadway conditions and needs. Based on existing traffic volumes and future developments, the transportation study estimates future traffic volumes and future roadway needs to the year 2010. The Recommendations chapter of this study identifies specific locations along the Route 55 Corridor where capital improvements are currently needed or will be needed. These improvements include road widenings, intersection improvements, road realignments, and new traffic signals.

Although the transportation study has not been completed, the preliminary draft identifies the following intersections in Elk Township where traffic signals may be needed by 2010 (this list is subject to change):

- Aura Road (CR667) / Aura Glassboro Road (CR619)
- Main Street (CR553) / Aura Road (CR610)
- Main Street (CR553) / Silver Lake Road (CR608)

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<sup>8</sup>MSM Regional Council, The Growth Management Handbook, 1989. Actual costs may be substantially higher since these costs do not include pre-construction costs such as right-of-way acquisitions and design and engineering costs.

- Centerton Road (CR553) / Aura Road (CR667)
- Centerton Road (CR553) / Swedesboro Road (CR538)

The transportation study also recommends changes in the functional classification of county roads and identifies roads where ownership should be changed from municipal to county and county to municipal. The study should be completed during the Fall of 1990.

## PUBLIC SAFETY COSTS

As Figure IV shows, public safety costs also constitute a major expenditure (33%) for Elk Township, as is true in most municipalities. Police and fire services constitute the majority of public safety expenditures. Other public safety services in Elk Township include environmental inspections and controls and civil defense and disaster control. However, these services accounted for only 7% of the township's 1988 expenditures for public safety.

### Police Services

In Elk Township, 1988 police services cost \$281,000 or 75% of all public safety expenditures and 25% of all 1988 expenditures.

The New Jersey Police Chiefs Association recommends two police employees per 1,000 residents. This standard is also used nationwide although it should be adjusted to take into consideration extenuating circumstances or the special safety needs of a community. In 1989, Elk Township had seven police employees representing one police personnel for every 486 residents.<sup>9</sup>

Additionally, the New Jersey Police Chiefs Association estimates the annual cost per police employee to be \$39,548 (includes cost of equipment). In 1985, Elk Township spent approximately \$32,000 per police employee. These costs do not include those associated with building a new police station(s) which will be necessary if the estimated 14,000 population is realized.

Given a population of 14,000 and a multiplier of two police personnel per 1,000 new residents, Elk Township, in addition to its current police force, by the year 2010, will

**Need: 28 police personnel @ \$39,548 = \$1.1 million annually**

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<sup>9</sup>New Jersey Associates, The New Jersey Municipal Data Book, 1989.



**TABLE III**

**VEHICLE TRIPS GENERATED**

**BY LAND USE**

<u>LAND USE</u>	<u>AVERAGE TRIPS/WEEKDAY</u>
Single-Family Detached	10.1/dwelling unit (du)
Townhouse and Condo	5.9/du
Garden Apartment	6.6/du
PUD	7.4/du
<u>General Office Building</u>	
50,000 Gross Sq. Ft. (GSF)	16.3/1,000 GSF
100,000 GSF	13.7/1,000 GSF
150,000 GSF	12.4/1,000 GSF
200,000 GSF	11.5/1,000 GSF
300,000 GSF	10.4/1,000 GSF
PUD Office Park	11.4/1,000 GSF
Light Industrial	7.0/1,000 GSF
Warehouse	4.9/1,000 GSF
Mini-Warehouse	2.6/1,000 GSF
<u>Shopping Center</u>	
10,000 Leasable Sq. Ft. (LSF)	166.4/1,000 LSF
50,000 LSF	94.7/1,000 LSF
100,000 LSF	74.3/1,000 LSF
200,000 LSF	58.9/1,000 LSF
Supermarket	125.5/1,000 GSF
Convenience Market	887.1/1,000 GSF
Fast Food Restaurant (with drive-through)	632.1/1,000 GSF
Motel	10.2/occupied room
Elementary School	1.0/student

Source: Institute of Transportation Engineers, Trip Generation, 4th Edition, 1987.

Delaware Valley Regional Planning Commission, June 1990



## Fire Services

At the present time, Elk Township has three fire companies with an all volunteer staff of 90 persons. The township's 1988 expenditure for fire services was \$68,500, representing only 18% of the township's expenditures for public safety.

As a general rule-of-thumb, 1.65 fire personnel are needed for every 1,000 residents. Additionally, two fire vehicles for every 1,000 persons are recommended.<sup>10</sup> In the future, Elk Township's costs for fire protection will increase due to the need for more equipment and the possibility of a need for paid fire fighters.

Assuming a population of 14,000 in the PUD-area, Elk Township will:

- Need:**
- **23 full-time or equivalent part-time fire personnel**
  - **28 fire vehicles**

## SCHOOL COSTS

Elk Township has one elementary school for grades Kindergarten through the sixth grade. Junior and senior high school students attend the Southern Gloucester County Regional High School (Delsea) in Franklin Township.

Total costs per pupil in the Elk school district for the 1988-1989 school year were approximately \$4,000. Per pupil costs at the regional high school for the 1988-1989 school year were not available however during 1985-1986, per pupil expenses were approximately \$4,000. In the Elk school district the per pupil cost rose 33% between 1985-1986 and 1988-1989. If we assume the same increase for the regional high school, current per pupil costs would be approximately \$5,300.

DVRPC's year 2010 population and employment forecasts, forecast 19.1% of Gloucester County's population will be of school age. Given Elk's estimated PUD-area population of 14,000, 2,670 residents will be of school age.

During the 1999-2000 school year, the New Jersey Department of Education projects 39% of enrolled students, statewide, will be in grades 7 through 12 (projections beyond 2000 are not available). If we assume the same percentage in 2010, 1,041 of the Elk students will attend the regional high school, leaving 1,629 students in the Elk elementary school. To support the new PUD-area school students, at today's per pupil costs, the following additional costs would be necessary:

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<sup>10</sup>Nationally applied standard, however circumstances special to the township may raise or lower this standard. For example, municipalities with high-rise buildings or industrial facilities may require special fire protection services.

- Need:**
- **Elk Elementary School District: 1,629 students @ \$4,000 = \$6.5 million**
  - **Southern Gloucester County Regional High School District: 1,041 students @ \$5,300 = \$5.5 million (to educate Elk students only)**

Since 35% of all school revenues (1988) are contributed by local property taxes, **Elk residents would have to pay approximately \$4.2 million in taxes to support the two schools.**<sup>11</sup>

## SUMMARY

As this sample analysis of possible municipal expenditures has shown, the costs to support a growing population are high. Table IV shows a sample of some of the costs associated with new residential development. Estimated costs for schools, police personnel and garbage and trash disposal are approximately \$7.1 million given a population of 14,000. In 1988, Elk Township's expenditures for **all** municipal services plus township resident's property tax contribution for schools amounted to \$2.1 million; only 30% of the estimated \$7.1 million necessary to support only three services to meet the needs of 14,000 persons.

Although expenditures for public works, public safety and schools constitute the majority of municipal expenditures, there are many other costs associated with development not included in this sample analysis. For example, in addition to costs associated with the municipal functions on Table II, costs associated with the construction of new facilities such as schools, and police and fire stations may require the township and school districts to acquire considerable debt.

Finding the funds to cover the costs of municipal services required by new residents will become an increasing challenge for Elk Township. Although new residents and businesses will generate greater revenues, they may be insufficient to cover costs, as the next section shows.

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<sup>11</sup>A June 1990, New Jersey Supreme Court decision ruled that New Jersey's current funding formula for providing state aid to schools based on property taxes was unconstitutional. A new funding formula must be used for allocating state funds. This new formula may significantly change the percentage of school revenues contributed by Elk Township residents.

**TABLE IV**

**ELK TOWNSHIP**

**SAMPLE MUNICIPAL EXPENDITURES**

**POPULATION 14,000**

<u>SERVICE</u>	<u>ANNUAL EXPENDITURE<sup>1</sup> (\$ MILLIONS)</u>
Schools (Township Tax contribution only)	\$4.2
Police	1.1
Garbage and Trash Disposal	<u>1.8</u>
TOTAL	\$7.1 Million
TOTAL 1988 EXPENDITURES <sup>2</sup>	\$2.1 Million

Notes:      <sup>1</sup>These estimated expenditures do not include the costs of new infrastructure associated with these services such as new school and police buildings.

<sup>2</sup>Includes \$1.1 million spent on all municipal functions in 1988 and \$1 million collected from taxes for the two school districts.

Source:      Delaware Valley Regional Planning Commission, June 1990



## MUNICIPAL REVENUES

The primary revenue source for local governments in New Jersey is the property tax paid by residents and businesses. As the township's population increases so too should its property tax revenues. As Table V and Figure V show, in 1988, Elk Township derived 66% of its \$3.1 million revenues from property taxes (residential and business). Miscellaneous revenues, taxes on utilities, prior years surplus funds and state aid provided the remainder of the township's revenues.

Approximately, 74% of the township's property valuations are residential parcels, while only 6% of all parcels are commercial/industrial. As vacant land and farmland develops, the percentage of commercial/industrial parcels should increase which will raise the township's property valuations and consequently its tax revenues. At this point, it is impossible to determine how much the per capita tax levy will increase due to increased property valuations.

Although the township's 1988 property tax was approximately \$2.3 million, only \$533,000 or 23% of all tax revenues were allocated to the township. As Figure V and Table V shows, the remainder of the property tax revenues were earmarked primarily for the school districts and the county.

In 1988, the general tax rate for Elk Township was \$3.20 per \$100 of assessed value. According to the New Jersey Department of Community Affairs, this tax rate translates into approximately \$642 per person. If we assume this per capita tax levy remains unchanged, **the PUD-area's forecasted 14,000 population will generate approximately \$9 million or four times the current revenues derived from property taxes.**

If 23% (the 1988 percentage) of the total revenues are earmarked for the township, Elk Township can expect approximately \$2 million in taxes to cover the costs of local services. Given the service demands the township will be facing, it is unlikely that the local purpose portion of the property tax will be sufficient to support the costs associated with new and expanded services even if the per capita tax is increased.

## SCHOOL DISTRICTS REVENUES

As shown on Table V and Figure V, 47% of all property taxes in Elk Township are earmarked for the two school districts. The taxes collected from Elk's residents and businesses pays for 35% of the two school districts annual revenues. Additionally, both school districts receive 3% of revenues from the federal government and 62% of revenues from the state government.

If the two school districts continue to receive 35% of revenues from local property taxes, the forecasted population of 14,000 will generate \$4.2 million. Assuming today's per pupil costs and the current state and federal share of funding school costs does not change,

the \$4.2 million collected from the property tax will be sufficient to meet the per pupil costs of the expected 2,670 PUD-area students by the year 2010. However, it is unlikely that per pupil costs will remain the same. Most likely the new school-age population will necessitate the need for new and/or expanded school facilities which will raise per pupil costs.

## **SUMMARY**

Since all the costs of providing municipal services and education to the forecasted 14,000 PUD-area residents are not known, exact revenue figures cannot be determined. However, given the high costs associated with providing government services, it should not be assumed that revenues from property taxes will support new service demands. While raising the current property tax will be necessary it should not be viewed as the only funding option. The costs of providing services demanded by new development cannot and should not be borne solely by the local government and its residents and businesses. The following chapter identifies possible sources from which revenues can be obtained to pay for future local government services.



**TABLE V**  
**ELK TOWNSHIP**  
**DISTRIBUTION OF PROPERTY TAXES**  
**1988**

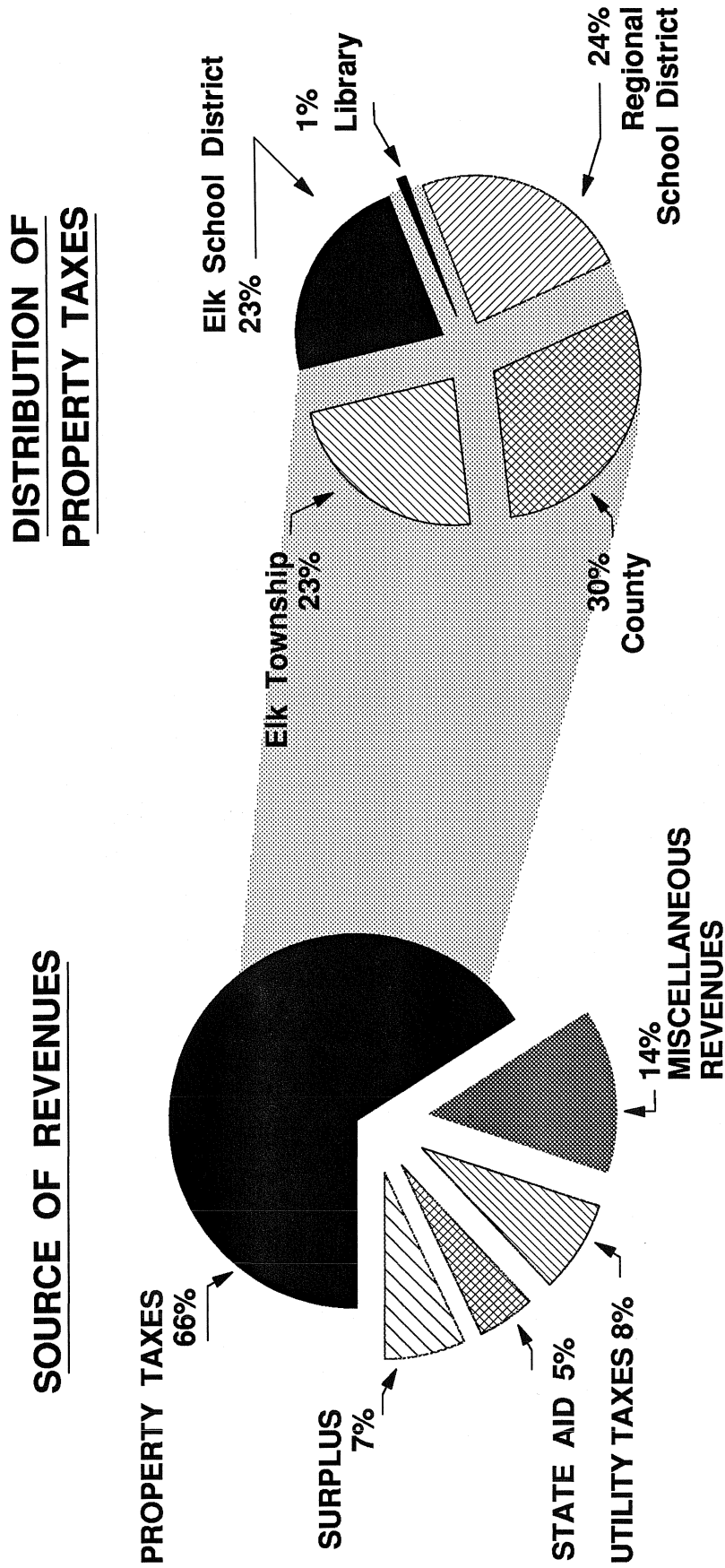
<u>Recipient</u>	<u>Amount</u>	<u>% of Total</u>
Gloucester County	\$ 675,032	30%
Regional School District	\$ 543,611	24%
Elk School District	\$ 525,852	23%
Elk Township	<u>\$ 533,000</u>	<u>23%</u>
TOTAL BILLED (90% Collected)	\$2,277,495	100%

Source: New Jersey Department of Community Affairs

Delaware Valley Regional Planning Commission, June 1990



**FIGURE V**  
**ELK TOWNSHIP 1988 REVENUES**



Delaware Valley Regional Planning Commission

Source: New Jersey Department of Community Affairs



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## **IV. RECOMMENDATIONS**

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The recommendations chapter of this study is divided into two sections: (1) future revenue sources; and (2) land use and access management techniques. The first section identifies possible funding sources to cover the costs associated with providing new and expanded municipal services demanded by future PUD-area residents. The latter section suggests planning tools and techniques which the township can implement, before development takes place, that can minimize some of the adverse impacts associated with new development that can potentially increase municipal expenditures.

### **FUTURE REVENUE SOURCES**

As demonstrated in Chapter III, Fiscal Impact Analysis, future revenues derived from the property taxes of the forecasted 14,000 PUD-area population will most likely be insufficient to cover the municipal expenditures necessary to provide services to the new residents and businesses. Additionally, the current trend of decreasing federal and state aid to municipalities should be expected to continue into the next decade. With this in mind, Elk Township will need alternative sources of revenues to fund municipal services. Although raising the property tax is certainly an option, it should not be viewed as the only option. Increasingly local governments throughout the country are turning to the private sector to help pay for the costs associated with development.

The following discussion suggests two possible future funding mechanisms for Elk Township. Both require developers to be responsible for financing off-site improvements necessitated by their proposed developments. One funding mechanism applies only to transportation-related improvements and the other applies to most public services and infrastructure needs.

### **TRANSPORTATION DEVELOPMENT DISTRICTS**

The New Jersey legislature recently enacted the Transportation Development District (TDD) Act of 1989, which enables counties and municipalities to assess developers fees to cover the costs associated with transportation improvements necessitated by new development. The Act allows counties and municipalities to designate a TDD that includes all of the municipality, a portion of the municipality or several municipalities. However, only those developers whose projects require transportation improvements within the TDD boundaries are subject to the fees.

An area qualifies as a TDD if it meets one or more of the following criteria:

1. an accelerating growth rate for estimated population or employment in excess of 10% in three of the past five years in at least three contiguous municipalities; or,
2. projected local traffic growth in excess of 50% in a five-year period generated from new development; or,
3. commercial/retail development projected at a rate of one million square feet per square mile in a five-year period; or,
4. projected growth in population or in employment in excess of 20% over a 10-year period.

It is suggested that the Elk Township PUD-area may qualify for TDD designation within the next 20 years. If the PUD develops as anticipated, its population will increase by more than 20% over a ten-year period (criteria #4) as required under the Act. Additionally, it is also possible that Route 55 will encourage growth in those municipalities adjacent to Elk Township, making the PUD-area eligible for TDD designation under criteria #1, listed above, as well.

The Act allows counties to apply to the NJDOT for TDD designation. However, if a county does not approve of a TDD designation request, the municipality or municipalities involved may apply to NJDOT. An application for TDD designation must include the following:

1. the proposed boundaries of the TDD,
2. evidence of growth conditions,
3. description of transportation needs,
4. certification that a current county master plan is in effect and that the TDD is in conformity with that plan,
5. certification that municipalities in or affected by the TDD have been given 30 days advance notice,
6. comments offered by the municipalities and response from the county, and
7. additional information required by NJDOT.

Once NJDOT has designated an area as a TDD the county must initiate a joint planning process, involving the state, all affected counties and municipalities, and private representatives. The joint planning process is designed to produce a district transportation improvement plan and a financial plan. The district plans establish the goals and priorities for all modes of transportation within the TDD and provide for assessment of development fees based on a formula to be approved by NJDOT. The plans must be in accordance with state and county master plans and must identify financial resources available and recommend types and rates of development fees.

The county then needs to adopt an ordinance or resolution to provide for the assessment and collection of development fees. This would specify the fee to be assessed on development at the time the developer receives preliminary approval, or, if there is no preliminary approval process, at the time a construction permit is issued.

The county also must state if the fee is to be paid at one time or by a series of payments, and the payments shall be enforceable by the county as a lien on the land. Development which has received preliminary approval prior to the assessment liability date is exempt from these fees. All monies collected are deposited into a transportation development district trust fund, under the control of the county treasurer.

The development fees must be reasonably related to the added traffic growth attributable to the development and must not be more than the developer's "fair share" as defined in the ordinance. If the developer has paid a "fair share," then development cannot be delayed due to a lack of off-site improvements. Variable fees can be charged in two instances. First, if a core area is designated, differential fees can be charged inside and outside the core. Second, if a developer designs the project so as to reduce its transportation impacts, the fees may be reduced. Funds that are not committed to a project within ten years must be refunded to the fee payer.

The fees charged are to be based on a formula that relates to the impact of the proposed development on the transportation system and should include the following factors:

1. vehicle trips generated
2. occupied square footage of a developed structure
3. number of employees regularly employed at the development
4. number of parking spaces located at the development

The NJDOT is currently reviewing applications for TDD designation and is also promulgating regulations on the governing of TDDs once they are established. Since this is a new concept, Elk township should monitor the use of TDD's in other jurisdictions to see how they are working and how they might benefit the PUD-area in the future.<sup>12</sup>

## IMPACT FEES

Several states have enacted enabling legislation which allows municipalities to charge developers fees to finance the costs of providing public services and facilities needed as a result of new development. These fees are being imposed in response to (1) the demand for increased public services as a result of new development; (2) a reduction in

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<sup>12</sup>For further information on TDDs or to obtain information on TDDs established in other counties contact: NJDOT, Bureau of Local Transportation Planning, (609) 530-2860.

federal and state funding for infrastructure; and (3) public resistance to local tax increases.

Legislation is currently pending in the New Jersey General Assembly to give New Jersey municipalities the legal means to impose impact fees. A summary of this legislation follows the discussion on existing use of developer-imposed fees.

#### Existing Use of Developer Fees For Off-Site Improvements

Although impact fee enabling legislation has not been enacted in New Jersey, New Jersey's Municipal Land Use Law (MLUL) contains language allowing municipalities to require developers to pay a pro-rata share of street, water, sewer and drainage facilities necessitated by new development.<sup>13</sup> However, the language contained within the MLUL fails to clearly define how or when these impact fees may be imposed, and does not address the financing of other necessary facilities and services such as recreation, education and public safety. Lack of clear direction at the state level has resulted in legal challenges to several locally implemented impact fees. New Jersey courts have historically required that any conditions imposed on development be defined within a local ordinance, regardless of whether the locality has the specific statutory authority to impose such conditions. Thus, assuming that the power to control land use for the health, safety and general welfare of the public may allow for the imposition of impact fees for off-site improvements, the New Jersey courts have indicated that collection of any fee requires the enactment of a sound local implementing ordinance.

New Jersey's MLUL was amended in 1975 to allow municipalities to "adopt regulations requiring a developer, as a condition of approval of a subdivision or site plan, to pay his pro-rata share of the cost of providing only reasonable and necessary street improvements and water, sewerage and drainage facilities ... located outside the property limits ... but necessitated or required by construction or improvements within the development or subdivision" (N.J. STAT. ANN. Section 40: 55D-42). The Law also authorizes localities to limit, restrict or condition the type, nature and extent of land uses (N.J.S.A. 40:55D-65[c]) and to establish reasonable standards to mitigate the negative impacts of permissible uses on the community (N.J.S.A. 40-55D-65[d]).

The 1975 amendment to the MLUL appears to have granted to New Jersey municipalities the power to impose off-site fees for specific purposes outlined in the language. However, the MLUL fails to offer municipalities clear direction as to how or when such fees may be imposed. Thus, interpretation of the powers granted to municipalities by the legislative language is left to the courts.

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<sup>13</sup>Municipal Land Use Law, Chapter 291, Laws of N.J. 1975 (N.J.S.A. 40:55D).



A 1989 DVRPC study of non-transportation impact fees in the Delaware Valley region found several municipalities in New Jersey impose impact fees on developers per the MLUL.<sup>14</sup> However, these fees are charged only for water, sewer and storm water drainage improvements and affordable housing may be subject to legal challenge by a developer at any time.

Although Elk Township should actively work with developers to acquire financing for off-site improvements, the township should be aware that the use of impact fees could result in a legal challenge at some time. Additionally, current MLUL only allows impact fees for improvements to streets and water, sewer and drainage facilities. No provisions are made for public safety, schools and any other municipal services/infrastructure necessary to support new residents.

#### Pending Legislation

If passed, the New Jersey Municipal and County Development Impact Fee Authorization Act (New Jersey Senate Bill Number 2037) will enable Elk Township and Gloucester County a legal mechanism for charging developers fees for off-site improvements regardless of location. The Impact Fee Authorization Act would allow municipalities and counties to charge developers impact fees for infrastructure needs resulting from new development. The proposed legislation authorizes counties to charge impact fees only for drainage facilities and county roads not included within a TDD. However, impact fees could be charged by municipalities for a variety of capital improvement projects including:

- transportation improvements outside a designated TDD;
- water treatment and distribution;
- wastewater treatment and sewerage;
- flood control and storm water management;
- low and moderate income housing;
- parks and recreation facilities;
- public safety and related facilities; and
- educational facilities

The need for all projects financed through impact fees must be justified from projections of growth and demand, and an impact fee ordinance must be in place. In order to adopt an impact fee ordinance, a municipality or county would have to have a Master Plan and a six-year Capital Improvement Plan (CIP) which is consistent with the Master Plan and the State Development and Redevelopment Plan. The CIP would have to be updated annually and justify the need and costs for each capital improvement.

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<sup>14</sup>Delaware Valley Regional Planning Commission, Region-wide Assessment of Non-Transportation Impact Fees, Publication No. 89018, September 1989.

The impact fee legislation requires most impact fees to be spent on a specific project within eight years, unless a bond is needed to fund the project. The legislation also allows municipalities the option of having developers construct all or a portion of a capital improvement in lieu of impact fees.

Additionally, if proposed development impacts more than one municipality a joint impact fee ordinance can be established. Also, counties can form joint impact fee arrangements with other counties.

The Impact Fee Act is still in committee and will not be considered until the Fall of 1990. If passed, this legislation will greatly enhance Elk Township's opportunity to have many government services and infrastructure needs financed by the private sector. The township and the county should carefully monitor the progress of the Impact Fee Act as it moves through the New Jersey legislature.

## **SUMMARY**

As shown earlier, municipal expenditures for municipal services will rise substantially as the PUD-area develops. If Elk Township is to provide the necessary services and amenities which will be demanded by existing and future residents and businesses, the private sector will have to provide the financing for these services. It is doubtful that the township's current revenue structure will be sufficient to finance the costs of new service and infrastructure demands.

This problem is not unique to Elk Township, most New Jersey municipalities are faced with this problem. It is therefore, imperative that state legislation provide the means for municipalities to require developers to pay for municipal services and infrastructure improvement costs associated with their proposed developments. The TDD Act and the proposed impact fee legislation provide this means. Elk Township should carefully monitor the progress of each. Since the PUD-area is still undeveloped, the township has time to assess the impacts and capabilities of the TDD Act and the impact fees legislation, if enacted.

## **LAND USE AND ACCESS MANAGEMENT TECHNIQUES**

Given the development potential of the PUD-area, stringent land use and access management techniques should be implemented as warranted by the type and intensity of development. The following recommendations are made in an effort to promote the most efficient and desirable development within the PUD-area. These recommendations are designed to coordinate land use and transportation development so they interact in harmony with one another rather than in conflict. Implementation of sound planning practices will minimize unnecessary expenditures for infrastructure improvements and will enable the township to have the proper tools in place to designate the PUD-area as a TDD and to impose impact fees, if current legislation becomes law.

## ADOPT A CAPITAL IMPROVEMENT PLAN

Elk Township should adopt a Capital Improvement Plan (CIP) which is compatible with the township's Master Plan. A CIP should be updated on an annual basis and should project capital improvement needs over a six-year period. The CIP should list projects by priority and should include a proposed time schedule for the construction of each project. For each project, the CIP should also include the costs of construction, operations and maintenance and include estimated revenues which the project might generate. The CIP should also include available funding sources for each project.

The CIP in conjunction with the Master Plan should be consulted during development proposal reviews. The timing and location of all proposed developments should coincide with the CIP and the Master Plan. In this way, development can be planned to keep pace with needed capital improvements.

## ADOPT AN OFFICIAL TOWNSHIP MAP

The Official Map designates the location and width of public streets and drainage ways. It is used to officially establish the existing and future right-of-ways on all township roads (Gloucester County has a similar map for county roads). By preserving future right-of-ways on the Official Map, the township can accommodate future road widenings and intersection improvements when needed.

An Official Map is also useful to developers. When developers design their projects knowing the ultimate right-of-way of a road will help them establish the appropriate setbacks. By reserving or requiring dedication of land for future roadway improvements, Elk Township can avoid the costly and time-consuming process of condemnation of privately-held land when the existing roadway reaches capacity.

## ADOPT A CIRCULATION PLAN

At the present time, the Elk Township Master Plan does not include a circulation plan.<sup>15</sup> A circulation plan is extremely important, although not required under New Jersey's Municipal Land Use Law it should be incorporated into every Master Plan. The circulation plan specifies the location and types of facilities for all modes of transportation. In Elk's case the circulation plan should emphasize the hierarchy of existing and future roads.

The hierarchy of roads determines the function of the roads and how they interact with one another and adjacent land uses. The hierarchy determines how roads function based on the type of traffic using the roads and the access requirements of adjacent properties.

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<sup>15</sup>A circulation plan is being developed by the township but was not available for review prior to completion of this study.

For example, residential streets provide frontage access to individual lots and carry the least amount of traffic at the lowest speeds. Collector roads carry traffic from residential streets to and from major arterials and expressways. Since these roads are designed for free flowing traffic, parking should be prohibited and homes should be sited with reverse frontage. The recommended functional classification and cartway widths for municipal and county roads along Gloucester County's Route 55 Corridor is described in a companion study currently in progress by DVRPC (see discussion of roads in Chapter III of this study).

A good circulation plan should also show future road alignments and their hierarchy. This is particularly important in the PUD-area. Since the PUD-area is so large it has the potential to generate a substantial amount of traffic. The road network within the PUD-area must work efficiently to allow traffic to flow freely through the PUD-area and onto county roads leading to Route 55 and other communities. The township must make sure the circulation system within the individually proposed PUDs and between the PUDs interacts efficiently with one another.

The circulation plan should also identify problem areas, such as roads approaching capacity, poorly designed intersections, hazardous areas and high accident areas. The plan should also include possible solutions to these problems.

As with the land use element of the Master Plan, the circulation plan should be coordinated with county plans and those plans of neighboring municipalities. Consideration should be given to future improvements on county roads and the impact proposed development may have on these roads. If the county roads are not capable of handling new traffic, the township will be faced with congestion problems. For this reason coordination with the county is crucial.

## REQUIRE TRAFFIC AND FISCAL IMPACT STUDIES

The PUD Ordinance requires the Master Development Plan for each PUD proposal to include a Fiscal Impact Analysis and a Traffic Plan. The Ordinance language should be expanded to include the required details of all traffic and fiscal impact studies.

The traffic impact study should identify in detail, the hierarchy of the proposed PUD's road system and how it interacts with existing and proposed municipal and county roads within and outside the PUD-area. Information should also be included on traffic volumes, transit facilities, and levels of service for all phases of the proposed development. Table VI provides information on those elements which should be included in a Traffic Impact Study, as recommended by NJDOT.

The fiscal impact study should identify the impact the proposed PUD will have on municipal services and infrastructure during each phase of development. As required under the PUD Ordinance, the fiscal impact study should show the anticipated cost of

**TABLE VI**

**COMPONENTS OF A TRAFFIC IMPACT STUDY**

**I. Introduction**

- A. Applicant and project name.
- B. Location of the site.
- C. Description of the site from land use and transportation perspective.
  - 1. project phasing
  - 2. access points
  - 3. connection to other developments.

**II. Analysis of Existing Conditions**

- A. Description of the study area's transportation facilities: roadways — number of lanes, functional classification, condition, location of traffic signals, transit routes and stops, school bus routes and stops, pedestrian crosswalks and sidewalks and any other feature that affects traffic flow.
- B. Transit facilities — on-street facilities and facilities on private rights of way — service frequency and stop locations.
- C. Traffic volume data — turning movement counts at key intersections at the peak periods of the day; data on truck movements, pedestrians and transit; volume/capacity analysis and assessment of existing conditions.

**III. Traffic Characteristics of the Site**

- A. How much new traffic will be added to the roadway and transportation system by the development proposal.
- B. How will that traffic distribute itself on the system and, if applicable, to transit.

**IV. Future Demands on the Transportation Network**

- A. Projection of non-site related traffic to the build-out year or years of the site (base conditions).
- B. Projection of all traffic (including site traffic) to the build-out year or years of the site.

**V. Impact Analysis and Recommendations**

- A. Levels of service must be computed for each analysis year with and without the inclusion of site traffic.
- B. Comparison of level of service conditions with the site and the recommended improvements and without site traffic.
- C. Auto traffic reduction strategies.
- D. Schematic plan of improvements.

**VI. Site Plan Analysis**

- A. On-site circulation issues.
- B. Access location.
- C. Parking analysis.
- D. Sight distance analysis.



providing municipal and school services and anticipated revenues generated by the proposed development.

It is recommended that the ordinance be expanded to require the fiscal impact study to show when the municipal and school services will be needed, how they will be financed and where new facilities (schools, police and fire stations, libraries, etc.) may be best sited to most efficiently service the new community. Additionally, costs for the construction of new facilities (including land acquisition costs) should be shown in addition to the costs of providing the actual services. The ordinance should also list all municipal and school services to be analyzed in the fiscal impact study.

In addition to determining the traffic and fiscal impacts of proposed developments, the two impact studies can be used in the determination of appropriate impact fees. For this reason, the township should consider having the traffic and fiscal impact studies performed by a third party at the developer's expense.

## ENCOURAGE PUBLIC TRANSPORTATION

As part of the circulation plan, opportunities for public transportation should be addressed. Fixed route public transit systems are generally not successful in the suburbs due to low-density development patterns. However, the PUD-area may be able to support bus routes if planned properly. According to NJDOT, for a minimum level of bus service to be viable, a population of at least 3,000 per square mile is needed, with densities of approximately four to five dwelling units per acre and five million square feet of nonresidential space. Given the allowable densities under the Elk PUD Ordinance, fixed route bus service may be feasible once several developments take place. However, Elk Township should encourage developers to cluster residential dwellings to provide the maximum potential for economically viable bus routes. Additionally, all proposed developments should incorporate bus lanes, turn-arounds, shelters and safe pedestrian access to transit facilities into their plans for future use.

If the traditional fixed route bus service, such as that provided by NJTRANSIT, is not feasible in the PUD-area an alternative might be paratransit services. Paratransit services are smaller bus routes which might circulate within and/or between several large developments. However, even this type of service requires a clustered pattern of development of medium density to generate enough riders. This type of service could also be used as a feeder service to bus routes in surrounding communities. For example, a bus service could transport PUD-area residents to NJTRANSIT routes in Glassboro thus enabling Elk residents easy access to employment centers in Camden County and Philadelphia. This would also help to reduce traffic generation.

One of the advantages of a PUD development is that it requires all land uses and densities to be known prior to the submittal of applications for the various phases. Since all land uses are known, densities and the siting of uses should be such that they

encourage rather than hinder the use of public transit. Additionally, public transit should be part of the design and site plan, rather than added after development takes place. In this way, public transit can be incorporated into all PUD developments.

## INSTITUTE PARKING MANAGEMENT PLAN

A good parking management plan should discourage single-occupant vehicles and minimize the acreage devoted to parking. All development proposals for non-residential developments should have restrictive parking policies. The following parking policies should be included in all ordinances:

- Minimize number and size of parking spaces required. Establish a maximum number and size for parking spaces, not minimums.
- Require shared parking lots among adjacent uses which do not have the same operating hours.
- Require preferential parking spaces for multi-passenger vehicles.
- Require employers or employees to pay a fee for each parking space used by single-occupant drivers.

Additionally, developers should be required to provide for park-and-ride sites throughout the PUD-area. If public transit is not available, PUD-area residents should be able to park their cars at designated sites which can be served by buses to employment centers, such as Glassboro, the Philadelphia area, and the Vineland/Millville area.

## INVESTIGATE TRAFFIC MANAGEMENT STRATEGIES

At some point in the development of the PUD-area traffic management strategies may be necessary to control traffic congestion. Many suburban communities which have experienced rapid and intensive development are experiencing severe congestion problems. In order to minimize this potential future problem in Elk Township, the township should consider the use of a traffic management ordinance. This type of ordinance might require large employers to utilize flexible or staggered work hours to eliminate congestion caused by employees arriving at or leaving their places of employment at the same time. The ordinance could also establish a maximum number of employee trips during peak hours, or establish certain levels of service standards at critical intersections. Additionally, the ordinance could require employers to provide a carpool matching service for its employees. Numerous local governments throughout the



country have recently adopted these types of ordinances.<sup>16</sup> They should warrant further investigation by the township, as the PUD-area develops.

## REGULATE SITING OF USES

The PUD-area may be attractive to highway-type uses such as mini-storage businesses and distribution centers due to the regional access provided by Route 55. Although these uses will generate tax revenues and be a source of employment for PUD-area residents, they should be limited to the Route 553/Route 55 interchange area. These types of uses may generate a substantial amount of traffic, especially truck traffic. By restricting these uses to the interchange area they will have a minimal impact on the residential areas of the PUD-area.

Elk Township should also monitor the siting of other uses outside the interchange area. The township should avoid allowing too many driveways on major arterial roads. Numerous curb-cuts impede the flow of traffic due to stopped vehicles making turns and are a safety hazard. Such techniques as reverse frontage should be used whenever possible. Additionally, service roads with controlled access (traffic light) to arterial roads should be used to provide access to multiple businesses.

## MONITOR SUBDIVISION REQUESTS OF LESS THAN 150 ACRES

The current Elk Township PUD Ordinance requires all PUDs to include a minimum of 150 acres. All proposals less than 150 acres must adhere to the less stringent zoning requirements of the underlying zoning districts.

So far this acreage requirement has not been a problem. Most proposed PUDs are being planned by current landowners and include all of their landholdings. However, the township should be aware that subdivision of these large farms may take place. The current landowners cannot develop their proposed PUDs until the sewage treatment issue is resolved which could take several years. During this period some landowners may sell all or part of their farms to outside interests. The new owners may subdivide the farms into smaller parcels and develop them per the underlying zoning districts.

If the subdivision and development of these farms under the low-density zoning regulations occurs, it could undermine the intent of the PUD Ordinance. Several low-density housing developments could prevent well-planned and coordinated development from taking place in the PUD-area.

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<sup>16</sup>North Brunswick Township in Middlesex County, New Jersey has a traffic reduction ordinance in effect. Review of this ordinance and its impact on traffic generation may be of benefit to Elk Township as the PUD-area develops.

Although the township cannot prevent the development of PUD-area land per the underlying zoning districts, it should carefully monitor land subdivision requests and requests for site plan approvals and consider the impact they will have on the overall intent of the PUD.

## INCREASE OPPORTUNITY FOR CENTER DESIGNATION

As discussed in the Introduction to this report, Elk Township/Glassboro has been identified as a Corridor Center by Gloucester County as part of the draft State Plan. Additionally, DVRPC's 2010 Regional Development Strategy designates the Glassboro/Pitman area as a County Center. It is conceivable that this County Center could extend southward into Elk Township if anticipated development occurs.

The definitions of both the Corridor Center and the County Center are similar. Both include mixed-uses and diverse opportunities for employment, housing, shopping and recreation. Although the Elk PUD Ordinance provides for mixed-uses, its predominant use is residential. With the exception of the Quaker development proposal, none of the proposed developments in the PUD-area include employment-generating uses. (To comply with the PUD ordinance, these developments must have a minimum 20% set-aside of gross acres for non-residential development, however the proposals are still in the conceptual stages and information on non-residential. Uses is not available).

It is possible that the minimum set-aside of 20% non-residential development is too low to allow designation of the PUD-area as a corridor or county center. A successful corridor center must have adequate employment opportunities for residents to prevent out-commuting which can increase local and regional traffic congestion and lessen the desirability of an area to potential homebuyers if they have to travel too far to their jobs.

The relationship between jobs and housing can be used to measure the availability of jobs. If the PUD-area has a low jobs/housing ratio, then it has few employment opportunities relative to housing opportunities, thus resulting in out-commuting. Since little information exists on proposed non-residential developments in the PUD-area, the jobs/housing ratio cannot be calculated. However, as development proposals are presented to the township for review, this ratio should be examined. Elk Township should not become a "bedroom community." If the jobs/housing ratios are too low, the township may need to amend the PUD ordinance to increase the minimum set-aside for non-residential development.

In addition to considering the jobs/housing ratio within a proposed development, non-residential densities should also be carefully considered. The PUD Ordinance does not sufficiently address this issue. The standard measure for non-residential densities is the floor area ratio (FAR). The FAR is a measurement of the ratio between the gross floor area of a building and the area of the building's lot. For example, an FAR of 1 means the

gross floor area of the building is equivalent to the area of the lot. However, the building can be designed in several different configurations and heights to achieve the same FAR.

According to a recently completed report on growth management by the MSM Regional Council (Mercer, Somerset and Middlesex counties in central New Jersey) the typical suburban office park in New Jersey tends to have an FAR of less than .25. However, a move towards mixed-use centers in New Jersey is resulting in greater non-residential densities. According to the MSM Regional Council, the 1985 national average FAR for suburban mixed-use developments was 1.43, with an average site size of 44 acres.<sup>17</sup>

By incorporating higher non-residential densities within the Elk Township PUD-Ordinance, the township is improving the possibility of: (1) raising the jobs/housing ratio; (2) incorporating bus and car/van pool services; (3) reducing the need for extensive parking facilities; and (4) preserving open space. The higher densities combined with the appropriate mix of uses will enable residents, workers and shoppers to remain within the PUD-area and circulate within the PUD-area by walking or possibly the use of an internal shuttle bus, thus reducing traffic congestion in and around the PUD-area and encouraging development of the PUD-area as a corridor/county center.

The MSM Regional Council's growth management report categorizes centers and other areas by primary land uses and establishes key characteristics. MSM's Town Centers seem to correspond with the draft State Plan's Corridor Centers and DVRPC's County Centers. The recommended characteristics of MSM's Town Centers are presented here for reference only. In reviewing PUD-area development proposals and the PUD Ordinance it may be useful to keep these recommended characteristics in mind.

#### Town Centers

- Primary Use: Residential/Retail/Services
- Jobs/Housing: .6 jobs per dwelling unit
- Ideal population: 5,000
- Ideal employment: 1,200
- Average density gross: 7 du/ac; net: 10 du/ac
- Average FAR: .70
- Height Range: 2-4 stories
- Public Open Space: 15%
- Ideal Size: 320 acres

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<sup>17</sup>MSM Regional Council, An Action Agenda For Managing Regional Growth, 1987.

## **SUMMARY**

Unlike many suburban municipalities, Elk Township's planning efforts are not reactive. That is, the township is not trying to institute new planning mechanisms to manage existing problems. The township currently has the opportunity to have land use and access management mechanisms in place prior to the start of intensive development. That is the purpose of the above recommendations. However, the above recommendations can only be implemented if they are incorporated into existing ordinances and development review procedures prior to intensive development.

For example, zoning and subdivision and site plan ordinances should have amended setback requirements based on the findings of the Circulation Plan and the Official Map. The new setback requirements should take into consideration the function of the roads and the possibility for future widenings. Buffer requirements should also be reviewed and amended, if necessary. Ordinances should also be amended to include or update access controls such as reverse-frontage and shared-access driveway requirements.

As part of the development review process, Elk Township should review the traffic impact and fiscal impact studies of all PUD proposals. By reviewing these studies early in the review process, fiscal and traffic impacts will be known before too much time and expense has been spent on development proposals. This will allow the township to work with developers to propose possible solutions to problems which the impact studies may reveal prior to the granting of approvals.

Elk Township should carefully review all ordinances and its development review process to see where amendments or changes may be necessary. Until the proper land use and access Management Techniques are officially adopted by the township effective planning cannot take place.

## **CONCLUSION**

The Elk Township PUD-Area has the potential to support approximately 31,235 persons at build-out, per the maximum density allowed under PUD Ordinance. It is estimated that the PUD-area will realize a population of 14,000 by 2010. This estimate is based on known development proposals and the fact that Route 55 is attracting a substantial amount of development into the area and will continue to do so over the next 20 years.

This substantial increase in Elk's population will place a tremendous burden on the township to supply needed services and infrastructure improvements. As the Fiscal Impact Analysis in Chapter III has shown, these services will be costly. For example, a population of 14,000 will require approximately \$1.8 million annually for trash collection and disposal at today's rates. The township's estimated 2010 school age population of 2,700 will require \$12 million in education costs (excluding new school buildings) and costs for police services could exceed \$1 million annually.

It is unlikely that the township's current revenue sources will be able to finance municipal services by 2010. In 1988, 66% of Elk's revenues came from the property tax. By 2010, the 14,000 population will generate approximately \$9 million in revenues, based on today's per capita tax rate. However, 32% of all property taxes collected went directly to the county, for county-run programs and services. Although the per capita tax rate can be raised, it is unlikely that municipal officials will be able to raise it enough to fund all needed services.

As the gap between expenditures and revenues widens, Elk Township will have to find alternative sources of funding. The private sector must pay for the services and infrastructure needs necessitated by new development. The recently enacted Transportation Development District Act and the proposed Impact Fee Authorization Act give counties and municipalities the legal means to charge developers fees for services and infrastructure needs caused by new development.

Elk Township must carefully monitor new legislation and incorporate it into the township's development review process at the appropriate time. Only through developer contributions will Elk Township be able to meet the service and amenity demands of its future population.

Elk Township must also strengthen its planning policies. Certain planning tools, such as a sound Master Plan, Circulation Plan, Capital Improvements Plan and Official Map must be in place before development occurs. These tools will enable the township to phase development with infrastructure needs and site land uses appropriately to most efficiently utilize public transportation and infrastructure systems.

Elk Township has the unique opportunity to have the appropriate planning tools in place before development takes place. This is an opportunity which many already developed communities did not take advantage of and are now dealing with the consequences of poor planning. By planning ahead, Elk Township can manage development so it does not have an adverse impact on the community. In this way, Elk Township will be a desirable community which will be attractive to current and future residents, employers and employees.



