

chester county planning commission



interim plan 1974

plan
chester county
pennsylvania

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SECTION I GOALS

A framework of reference - a comprehensive plan - was given impetus in recent years by the introduction of requirements of state legislation and programs. The County Highway Plan of 1967, the County Sewerage Plan of 1968, the Solid Waste Management Plan of 1972 were responsive to state stimulus and required comprehensive approaches which were followed by the county. Indeed the very nature of the studies and the plans that were eventually prepared made municipal boundaries less distinct. They gave clear evidence that where problems existed that were mutual to two or more municipalities, the inviolability of boundaries receded as a principle.

Further stimulus toward comprehensive approaches was created by federal legislation and the imposition of the provisions of various acts on all municipalities. Chester County's participation in the federally subsidized planning assistance program accelerated the move toward dealing with county concerns in a more encompassing fashion.

The development of this document, the Interim County Plan, began approximately three years ago as part of the Planning Commission's involvement in the Planning Assistance Program. In the application for federal assistance that initiated this work, the description of the purpose read as follows:

"To provide a framework of reference for the making of County decisions, to assist the County's municipal subdivisions in the comprehension of inter-related problems, and to provide an initial guide for future development in the County".

In order to develop the Interim County Plan to its present stage, some basic goals had to be pursued, goals which attempted to accommodate local, county, state and federal interest and purpose since all in some way influenced the past and will influence the future in the County. After much thought and discussion, it was the belief of the County Planning Commission that for the moment such accommodation could be made by general statements of county planning objectives reading as follows. It is these goals which are the basis for the Plan's development.

GENERAL GOALS

Housing

to provide guidance so that citizens have access to living accommodations through ownership or other arrangements, that are commensurate with their economic status and human dignity, that provide safety from the natural elements, and are safe in construction or use.

Social Service

to guide citizens to remedial and rehabilitation services of a public and private nature for those whose own ability to provide items essential to human health and dignity has been involuntarily restricted or denied by socially imposed conditions limiting education, health, job opportunity, or equal access to the judicial system.

Economic Development

to provide guidance so that citizens might have best access to employment in public or private organizations commensurate only with their ability

to meet the needs of the employer, and to promote conditions which enhance the ability of organizations to employ the citizens in the production and distribution of goods and services in a manner that mutually benefits the organization and the citizenry.

Public Utilities and Services

to support actions that provide each citizen with safe and dependable services of water, sewage, telephone, and power from public or private institutions -- services that are compatible with the citizen's physical needs and economic status.

Transportation and Circulation

to promote the utilization of private means and to provide public services for the safe movement of people and goods for business, pleasure, and other activities within and among communities of the county and to other counties or states.

Natural Resources

to support actions that provide a physical environment that appropriately balances the need of economic development and recreational opportunity against the immediate and long-term desires of the citizens for space, natural beauty and environmental purity.

Section II

BACKGROUND STUDIES

INTRODUCTION

Many Existing Conditions Influence The Plan

There are some basic conditions present on the land that effectively assist in shaping the land use plan. Some of these conditions are relatively fixed, i.e., natural features, existing land use, and transportation systems. Other conditions are somewhat less fixed but still significant land use shapers, i.e., governmental policies, population and employment development trends. Several of these conditions are presented in this section.

Natural features are the most fixed determinants; these include soils, topography, geology and drainage. These natural features have been particularly considered in the development of the land use plan. Location of

Chester County along the axis of the urbanized Northeast corridor has also major influence upon the plan.

Existing land use, the transportation network, and water and sewer systems, although not as firmly fixed as natural features and location, are significant conditions that influenced the resultant land use plan. Governmental decisions bearing upon the above also played a significant role in formulating the plan.

This section is designed to present an overview in concise form of the background information that assisted in formulating the plan. The lengthy detailed background data is available in several reports, tables and maps in the Planning Commission office.

NATURAL FEATURES

A Major Objective Of Chester County Planning Is To Plan Use In Harmony With Natural Features

The natural features of Chester County form the setting for the varied human activities which take place throughout the County. Also, they are a major force influencing what and where these activities can take place. For these reasons the natural environment is the first factor considered when planning for future land use development. The natural feature elements important in the planning of Chester County are topography, geology, soils, drainage and woodlands. Although most of the limitations dictated by these natural features can be overcome to suit man's needs, the costs to overcome these limitations could be very high and less pleasing aesthetically. Therefore, a thorough understanding of the physical conditions is necessary before considering how and what changes should occur.

The existence of many varied landforms, vegetation types and geologic formations contribute to make Chester County an area of unique natural beauty. Conscientious planning in the location of development can serve to maintain the attractive surroundings we value so greatly.

Slope Of The Land Shapes Development

Chester County lies wholly within the Piedmont Province of the Appalachian Highlands, which is an area of complex rock formations and gently to steeply rolling topography. It is the percent of slope, as it relates to the landscape, that is the major land feature which permits or limits the type and extent of growth which can take place.

Steep slopes severely limit the amount and type of development, for the steeper the slope the greater the difficulty for man's utilization. Fifteen to twenty percent of the County's land area is in slopes in excess of 15%. Included in this plan document is the recent County slope map indicating four categories of slope. Major areas of steep slopes are along the various creeks in the County, particularly the French, the White Clay, the Brandywine as well as the North and South Valley Hills bordering the Chester Valley.

For the most part, previous development within the County has taken place on lands with slopes of less than 15%. The most notable exceptions to this are the city of Coatesville and from Malvern eastward along the South Valley Hills of the Chester Valley. Slope maps are in jacket of this document.

Geology Is Responsible For Topographical Character, Resultant Soil Conditions And Affects Ground Water Supply

For the most part, Chester County is underlain by deeply weathered, old, complex, hard crystalline rocks. It is a complex of granites, gneisses, quartzites, gabbros and schists. The geological exceptions to this, are the limestones and dolomites of Chester Valley and the sandstones and shales in the Schuylkill Valley.

The geology has been weathered and eroded creating a landscape of gently undulating to steeply rolling country. Generally, the geologic ridge-like formations of that landscape have an orientation of southwest to northeast. Major streams cross much of this surface tilt of the Piedmont.

Most of the soils were formed in place from the weathering of these crystalline and sedimentary rocks. Nearly 80% of the County is underlain by soil associations formed from mica schists, gneisses and related meta-igneous rocks. About 13% are soils resulting from sandstone, shale and limestone formations. These soils are primarily located in Chester Valley and near the Schuylkill River in northern Chester County.

Ground water supply, because of the preponderance of igneous and metamorphic rocks, is likely not a reliable source for large supplies of water. This is due to the low porosity and permeability of these kinds of bed rock, which means they cannot store or transmit large amounts of water. The poorest yields occur with the gabbros, diorites, granitic gneisses and quartzites (about 0-10 gallons per minute). Regions underlain with Wissahickon schist yields are slightly higher ranging from 10 to 20 gpm.

Ground water yields in the region of Triassic sediments (northern Chester County) are the County's most substantial sources. In the Stockton formation yields average over 100-150 gpm while yields throughout the rest of this region range from 20 to 60 gpm.

The limestones underlying Chester Valley are variable in their ground water yields. As much as 1400 gpm has been found in Chester Valley. The major problem is the possibility of ground water contamination in the solution limestone water channels.

Most Of County's Streams Drain To Delaware River.

Drainage is the natural downflow of all water to the sea and the mode by which it travels ---- whether through surface ditches, gullies, streams, or rivers. Chester County's basic surface drainage flow is from northwest to southeast.

Several stream and river systems drain Chester County lands. The Brandywine Creek,

which rises in the Welsh Mountains in northwestern Chester County, drains the largest single percentage of the County land area - 37%. The Schuylkill River, which forms the northeastern boundary of the County, drains almost 24% of the County.

Other streams forming the remaining major drainage basins affecting the County are the Clay, the Octororo and Elk Creeks. These streams plus the tributaries of the Delaware River drain just over 39% of the land within the County.

The streams serve the County in several ways: sources of drinking water, discharge points for sewage effluent, and places providing a variety of scenic and recreational areas.

A detailed analysis of the physical environment of Chester County is contained in the report entitled Natural Environment and Planning. Copies of this report are available in the Planning Commission office.

THE REGIONAL SITUATION

Chester County's Location Within The Northeast Metropolitan Corridor Has Influence On Land Use Development

Along with many other counties on the seaboard of northeastern United States, Chester County is included in the region named Megalopolis. This area is the most urbanized region in the United States, and Chester County is along the central axis of it if a line is extended from Boston to Washington, D.C. See map on following page entitled "Urbanized Northeastern United States". Some of the important implications of this location are the following:

Population Densities and Characteristics

Although Chester County has a rural landscape character, only a small percentage of the total population is classified rural farm (55% is classified rural but most are rural non-farm). The County's population is expected to reach about 385,000 by 1985 and about 500,000 by the year 2000. The 1970 census reported a density of 366 persons per square mile in the County; this compares to 57.5 for the United States.

Easy Access Within The Region

A chief advantage of Chester County's strategic megalopolitan location, as industrial development publications proclaim, is its nearness (in time and/or distance) to major national markets and to the centers of cultural activity. Access to New York City and the national capital of Washington by car or train is only about two to three hours away.

The region is favored with recognized educational, cultural, historical, medical

and shopping facilities. Summer and winter recreation are within a few hours of driving time.

The easy access indicated above is possible because of major highway systems in the immediate area (Pennsylvania Turnpike, Interstate 95, U.S. 1 and U.S. 40). It is facilitated by the railroad systems of Penn-Central and Reading.

Some industries and businesses in Chester County have access also to the port of Philadelphia, a major water facility on the Atlantic Seaboard. The waters of both Delaware and Chesapeake Bays are available to boating enthusiasts of Chester County.

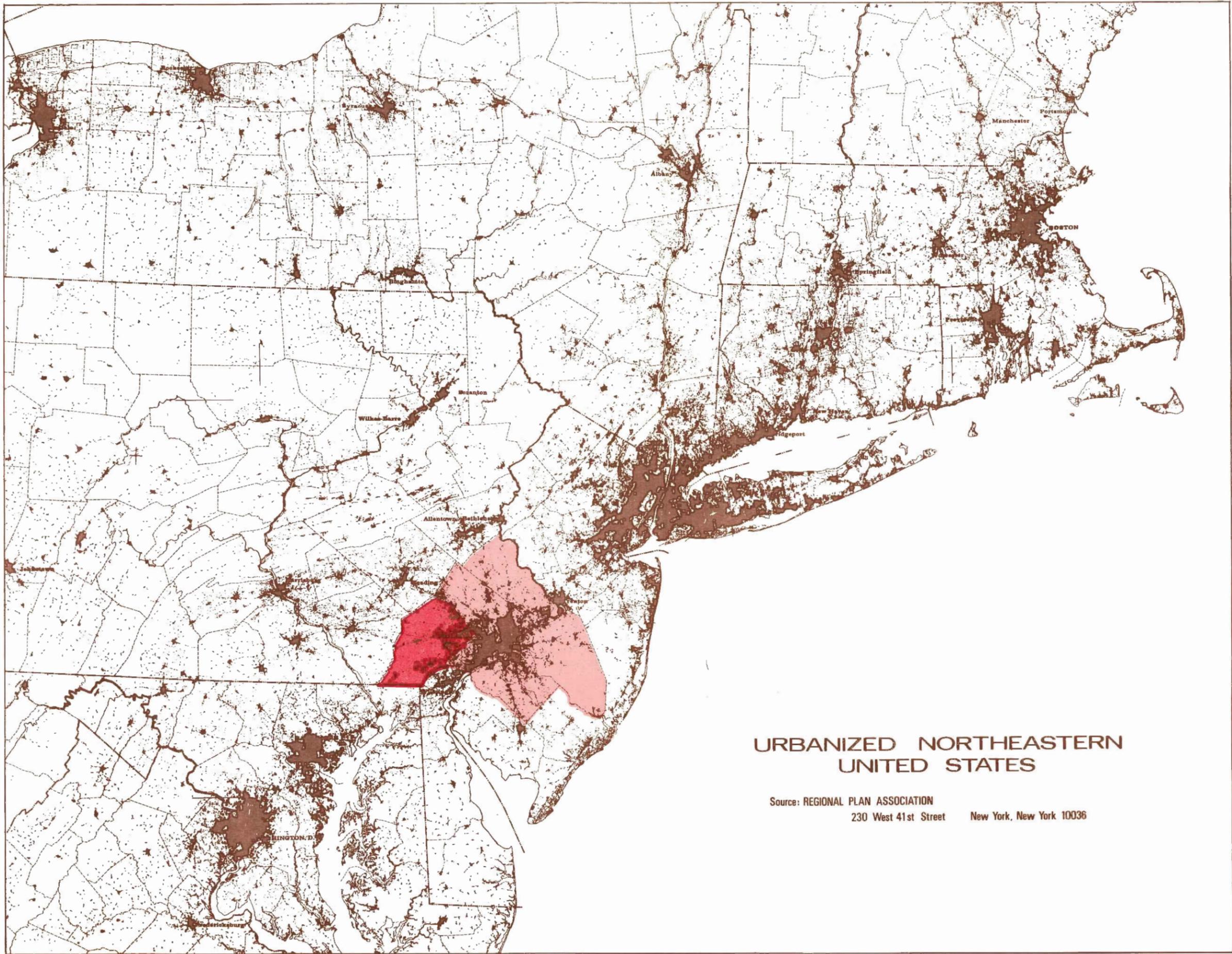
Local Plans Reflect Influence Of Regional Location

Locally land use development for any municipality will depend directly upon its location within the larger region and the region's facilities such as major highways, railroads and utilities. Therefore, local comprehensive plans must be adjusted to fit the regional framework.

Quality of Physical Environment, In Chester County

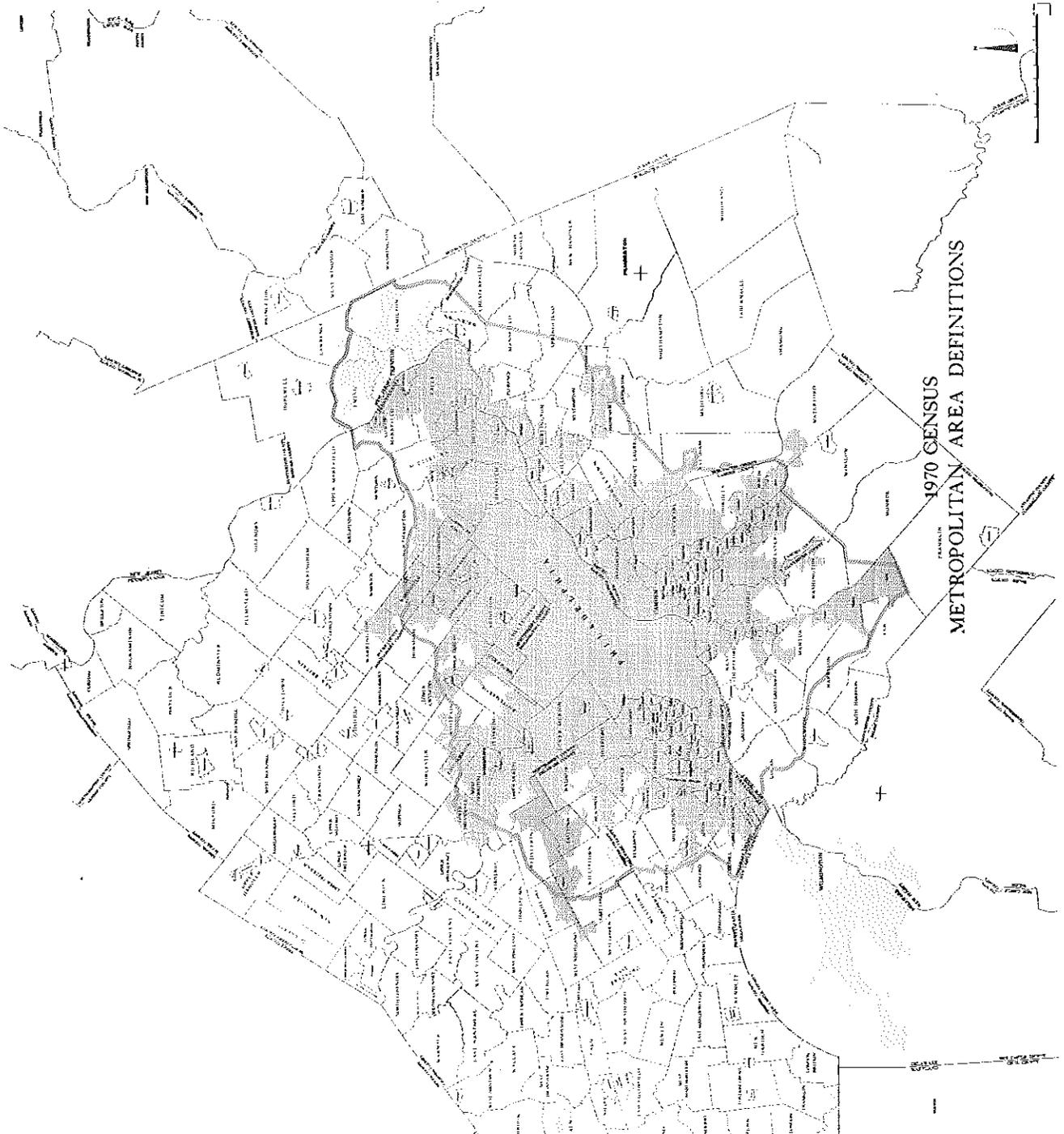
Chester County is relatively free from noxious and obnoxious pollutants found in the Wilmington-Philadelphia region other than those produced within the County. The County is located upwind from the major sources of air pollution.

Most of Chester County displays a rural to semi-rural appearance, and it has attracted a number of new residents because of this type



**URBANIZED NORTHEASTERN
UNITED STATES**

Source: REGIONAL PLAN ASSOCIATION
230 West 41st Street New York, New York 10036



CHESTER COUNTY WITHIN PHILADELPHIA SMSA, HOWEVER ONLY PORTION OF COUNTY "URBANIZED"

Since 1950, all of Chester County has been identified as part of the Philadelphia, Pa., MSA. Standard Metropolitan Statistical Area (SMSA). The Pennsylvania portion includes Bucks, Chester, Delaware, Lancaster, Lehigh, Merion, Montgomery, and York Counties. The New Jersey portion is comprised of Burlington, Camden, and Gloucester Counties. Contiguous to the Philadelphia SMSA are the Wilmington, Delaware, MSA (New Castle County, Del.) and the New York, New York, MSA (New York County, New York, Westchester County, and the City of Yonkers).

There are many definitions of metropolitan and urban regions. This map shows the area included in two of the more important definitions used by the U.S. Bureau of the Census and by the Delaware Valley Regional Planning Commission.

The Philadelphia urbanized area is a contiguous area of urban development in which the following kinds of activities are used to determine its location and aerial density: population patterns, population density, and the location of major transportation routes and other activities only into the sub-county portion of the County.

The Delaware Valley Regional Planning Commission, for use with urban planning, has defined urbanized areas and urbanized areas in plan sheets, detailed state collection, projections, and planning studies have been made. As can be seen on the map, all of Chester County is not within this "Golden Line".

- PHILADELPHIA CONTIGUOUS URBANIZED AREA
1970 CENSUS DEFINITION
- URBANIZED AREAS, CONTIGUOUS TO BUT
OUTSIDE PHILADELPHIA SMSA
- DELAWARE VALLEY REGIONAL PLANNING
COMMISSION "GOLDEN LINE"
- URBANIZED AREA WITHIN
CHESTER COUNTY

1970 CENSUS METROPOLITAN AREA DEFINITIONS

of landscape. At the same time such residents can commute to employment centers in the Philadelphia-Wilmington areas in a reasonable amount of time.

The Availability of Public Transportation

Southeastern Pennsylvania probably has the best system of electrified commuter network in the United States; and fortunately great effort is being made to preserve and to improve this service and integrate it with the bus and subway systems. The Southeastern Pennsylvania Transportation Authority (SEPTA) was created to own and operate major transportation facilities as an integrated system.

The three radial corridors in Chester County ---- Chester Valley, Schuylkill Valley and U.S. Route 1 ---- are also served or should be served by rail lines. The Chester Valley includes the main line of the Penn-Central to the West; the Schuylkill Valley includes the main line of the Reading Railroad to the hard coal fields; and the Route 1 corridor includes the Octorara Branch of the Penn-Central Railroad.

To make these commuter lines more nearly self-supporting requires carrying more passengers. Therefore, greater density of development at nodes around rail stations could provide the support of such commuter lines.

Significance Of Federal Metropolitan Definitions

There are many ways of defining and measuring the extent of metropolitan influence. The Federal government through the Bureau of the Census recognized and mapped metropolitan areas as early as 1930. In both 1960 and 1970 the metropolitan area was designated as the Standard Metropolitan Statistical Area (SMSA); Chester County is part of the Philadelphia SMSA. Detailed census data for Chester County results from its inclusion in the SMSA.

A more direct measure of actual contiguous urban influence is the Philadelphia Ur-

banized Area. This is a more accurate measure of developed areas out from the city of Philadelphia. See map of "Metropolitan Definitions".

County Planning Can Be The Bridge Between Local And Larger Area Planning

County planning pre-supposes that most of the intense urban growth will continue in the area of greatest metropolitan influence. The highway and public transit plans, while designed to offer opportunities to all parts of the County, will continue to create developmental pressure within the present area of metropolitan influence.

Although the more distant southern, western and northeastern parts of the County will probably grow more rapidly than in the past, they will remain outside of the direct metropolitan pressure.

All Chester County residents are also residents of the larger metropolitan community. Some only rarely travel to Philadelphia and other adjacent counties; others commute daily. But whether they personally travel much or little, all are at least indirectly affected by the well being, prosperity, efficiency and goodness of living and working in the entire metropolitan area.

In County planning, much greater attention is given to the relationship of the larger area. Chester County actively participates in the Delaware Valley Regional Planning Commission and a great many cooperative efforts with neighboring counties.

EXISTING LAND USE

Knowledge Of Existing Land Use Statistics Point Far Comprehensive Land Use Planning

Knowledge of the present land use pattern and land use amounts is one of the key starting points for land use planning. To what extent a municipality is already developed of course, is a direct measure of the amount of land that may be available for further development. The proportionate amount of land in industry, in commercial uses, in various housing categories is useful in understanding a municipality's economic structure. It does in fact also serve as a guide to future land utilization.

Existing Land Use Pattern

For the first time in time in twenty years of organized planning, good land use data is available on a uniform basis for all of Chester County. The land use data resulted from the combined efforts of staff at Chester County Planning Commission and Delaware Valley Regional Planning Commission.

The 1972 land use data was mapped at one inch to one mile and published at one inch to two miles. The map appears in the jacket and is entitled "Existing Land Use".

The pattern of land use shows development (residential, commercial and industrial) in, along and around the older boroughs and the three rail-highway corridors ---- (1) The Main Line-Chester Valley; (2) the Schuylkill Valley; and (3) the U.S. Route 1 corridor. Expanded development has occurred also in eastern Chester County. Generally the industrial and commercial land uses are pretty much concentrated in the transportation corridors. However, close inspection

of the land use map shows widespread scattering of residential development.

Land Use Inventory

Chester County Has 83% Of Its Total Area In Agricultural And Woodland Uses

According to the land use survey of 1972, about 400,000 acres of Chester County land are in agricultural and woodland uses. In fact about one-half of the total acreage is in agricultural use (cropland and pastureland). Data from the Pennsylvania Crop Reporting Service and U. S. Census of Agriculture supports an equal division of acreage between cropland and pastureland.

The next largest major land use category is woodlands comprising about 23% of the County area, mostly in the western and northern part of the County on the steeper slopes. The woodlands serve the vital function of maintaining the watershed by holding soils in place and preventing excessive runoff.

Unused land such as land in brush and weeds accounts for about eight percent of the County's lands. Generally this is land referred to as idle or vacant land.

Residential Use Is Primary Consumer Of Developed Land

The largest amount of urban oriented developed land is in residential development (about 44,000 acres or nine percent of the total County area). Of all residential land the largest amount is in single family resident. Land utilized for highways, streets, automobile parking lots and railroads occupies 3.4% of the land area of

the County.

Parks and recreation areas (private and public camps, parks and golf courses) together comprise about 1.7% of the land area. Major institutions, schools and cemeteries occupy about 1.5% and manufacturing, commercial and utility uses altogether occupy only a little over 1% of the total land area of the County.

Tables have been developed that indicate major land uses for Chester County, counties of the Region and regions of the County. These tables are presented in this document on the following pages. Tabular data of existing land use for all the municipalities of Chester County are available in the Planning Commission office.

D.V.R.P.C.'S 1970 LAND USE CALCULATIONS

REGION TOWNSHIP	Single-Family	Apts & Townhouses	Mobile Homes	Other Residential	TOTAL RESIDENTIAL	Manufacturing	Highways & Streets	Other Transportation	Communication & Utilities	Trade	Services	Recreation	TOTAL DEVELOPED	Agricultural	Woodland	Unused Land	Other Undeveloped	TOTAL UNDEVELOPED	TOTAL AREA	Water Area
LUCKS CO.																				
Acreage	43338	4283	1941	3459	52866	5525	11530	1590	1912	2884	9849	6143	92299	120599	102684	74721	9966	307700	399999	7589
% of Developed	46.9	4.4	2.1	3.7	57.2	5.9	12.4	1.7	2.0	3.1	10.6	6.6	100.0 %	30.1	25.8	18.6	2.3	76.9	100.0 %	1.8
% of Total Area	10.8	1.0	0.4	0.8	13.2	1.3	2.8	0.3	0.4	0.7	2.4	1.5	23.0 %							
CHESTER CO.																				
Acreage	41469	881	813	1172	44275	2035	12404	4140	715	2247	7033	8183	81032	248810	113356	36239	7528	406433	437465	5534
% of Developed	51.1	1.0	1.0	1.4	54.6	2.5	15.3	5.1	0.8	2.7	8.6	10.0	100.0 %	51.0	23.2	7.5	1.5	63.3	100.0 %	1.1
% of Total Area	8.4	0.1	0.1	0.2	9.0	0.4	2.5	0.8	0.1	4.6	1.4	1.6	16.6 %							
DELAWARE CO.																				
Acreage	27621	2331	42	2911	35105	2655	7630	2896	799	2191	5115	4845	60606	18347	25157	10762	7452	61720	122326	4987
% of Developed	49.8	4.1	0.0	4.8	57.9	3.4	12.5	4.7	1.2	3.6	8.4	7.9	100.0 %	15.0	20.5	8.7	6.0	30.4	100.0 %	4.0
% of Total Area	24.2	2.0	0.0	2.3	28.6	1.6	6.2	2.3	0.6	1.7	4.1	3.9	49.5 %							
MONTGOMERY																				
Acreage	61953	2123	191	2628	66905	4599	13223	4676	1353	2437	6889	16097	118191	118890	50233	22650	8000	199573	317764	4987
% of Developed	52.4	1.8	0.1	2.2	56.6	3.8	11.1	3.9	1.1	2.1	7.5	13.5	100.0 %	37.3	15.8	7.1	2.5	62.8	100.0 %	1.5
% of Total Area	19.4	0.6	0.0	0.8	21.0	0.8	4.1	1.4	0.4	0.7	2.7	5.0	37.1 %							
PHILA. CO.																				
Acreage	6644	14732	1	5849	27245	5181	13376	7398	1658	3599	8095	6386	75447	1376	2530	5269	6811	16606	92033	5910
% of Developed	8.8	19.5	0.0	7.7	36.1	6.8	17.7	9.8	2.1	4.7	10.7	7.9	100.0 %	1.5	2.7	6.3	7.3	18.0	100.0 %	6.4
% of Total Area	7.2	16.0	0.0	6.3	29.5	5.6	14.5	8.0	1.8	3.9	8.7	9.6	81.9 %							
PENNA. TOTAL																				
Acreage	182970	24415	2787	16025	226397	19407	53163	20701	6598	13408	39883	44127	422524	507944	293951	150741	39388	992034	1419618	29428
% of Developed	42.7	5.8	0.6	3.7	52.9	4.5	13.6	4.8	1.4	3.1	9.1	10.3	100.0 %	35.7	20.7	10.6	2.7	69.8	100.0 %	2.0
% of Total Area	12.8	1.7	0.2	1.1	15.9	1.3	4.0	1.4	0.4	0.9	2.7	3.1	33.1 %							
BURLINGTON																				
Acreage	26664	817	331	602	22414	1590	9136	1982	1614	1784	26786	5462	76743	126564	268609	33035	28345	454453	531201	13591
% of Developed	34.7	1.0	0.4	0.7	37.0	2.0	11.9	2.5	2.1	2.3	34.9	7.1	100.0 %	23.4	50.5	6.2	5.3	85.5	100.0 %	2.5
% of Total Area	5.0	0.1	0.0	0.1	5.3	0.2	1.7	0.3	0.3	0.3	5.0	1.0	14.4 %							
CAMDEN CO.																				
Acreage	24283	1811	50	735	26879	1993	8525	2592	930	1953	3456	4378	50716	22072	41901	11844	17478	93278	146014	4217
% of Developed	47.8	3.5	0.0	1.4	52.9	3.9	16.8	5.1	1.8	3.8	6.8	8.6	100.0 %	15.3	29.0	8.2	12.1	64.7	100.0 %	2.9
% of Total Area	16.8	1.2	0.0	0.5	18.6	1.3	5.9	1.7	0.6	1.3	2.4	3.0	35.2 %							
GLOUCESTER																				
Acreage	18441	413	268	423	19565	2246	5512	1243	347	1721	2911	2900	33845	72714	66447	17629	24123	181113	216958	9278
% of Developed	51.4	1.1	0.8	1.1	54.5	6.2	15.3	3.4	0.9	4.8	8.1	6.4	100.0 %	33.5	30.6	8.2	11.1	83.4	100.0 %	4.2
% of Total Area	8.4	0.1	0.1	0.1	9.0	1.0	2.5	0.5	0.1	0.7	1.3	1.0	16.5 %							
MERCER CO.																				
Acreage	19608	1309	37	1208	22161	1305	5184	2321	1662	1094	4664	3311	41502	57250	31834	11207	5233	103024	147026	2355
% of Developed	47.5	3.1	0.0	2.9	53.3	3.1	12.4	5.5	4.0	2.6	10.7	7.9	100.0 %	38.9	21.6	7.6	3.5	71.7	100.0 %	1.6
% of Total Area	13.3	0.8	0.0	0.8	15.0	0.8	3.5	1.5	1.1	0.7	3.0	2.2	28.2 %							
NEW JERSEY TOT.																				
Acreage	69966	4349	707	2969	97021	7136	28357	8118	4552	6554	37628	15451	204317	276499	408794	73913	75182	834390	1039207	29443
% of Developed	43.4	2.1	0.3	1.4	47.3	3.4	13.8	3.9	2.2	3.1	18.3	7.5	100.0 %	26.6	39.3	7.1	7.2	80.2	100.0 %	2.8
% of Total	8.5	0.4	0.0	0.2	9.3	0.6	2.7	0.7	0.4	0.6	3.6	1.4	19.7 %							
D.V.R.P.C. PHILA. REGION																				
Acreage	271967	28765	3694	16992	323418	26543	86520	28819	10951	19962	76611	99579	682403	784443	702755	224656	114589	1826423	2458826	38971
% of Developed	43.0	4.5	0.5	3.0	51.1	4.1	13.6	4.5	1.7	3.1	12.1	9.4	100.0 %	31.9	28.5	9.1	4.6	74.2	100.0 %	2.3
% of Total Area	11.0	1.1	0.1	0.7	13.1	1.0	3.5	1.1	0.4	0.8	3.1	2.4	25.7 %							

Based On Delaware Valley Regional Planning Commission 1970 Land Use File
Developed In Cooperation With The Chester County Planning Commission

Sub - Regions Of Chester County Land Use Calculations

REGION TOWNSHIP	Single-Family	Apts & Townhouses	Mobile Homes	Other Residential	TOTAL RESIDENTIAL	Manufacturing	Highways & Streets	Other Transportation	Communication & Utilities	Trade	Services	Recreation	TOTAL DEVELOPED	Agricultural	Woodland	Unused Land	Other Undeveloped	TOTAL UNDEVELOPED	TOTAL AREA	Water Areas	
AVON GROVE																					
Acreage	2082.3	24.6	122.3	25.7	2254.9	35.0	1142.2	123.0	21.5	120.8	238.5	103.3	4059.2	39776.8	11398.1	2969.0	586.3	54730.2	58789.4	506.3	
% of Developed	51.2	0.6	3.0	0.6	55.5	0.8	28.1	3.0	0.5	2.9	6.3	2.5	100.0	67.6	19.3	5.0	0.9	93.0	100.0	0.8	
% of Total Area	3.5	0.0	0.2	0.1	3.8	0.0	1.9	0.2	0.0	0.2	0.4	0.1	6.9	67.6	19.3	5.0	0.9	93.0	100.0	0.8	
COATESVILLE																					
Acreage	2570.3	125.5	95.9	265.2	3056.9	432.2	954.6	956.3	59.0	280.7	484.3	1075.0	7299.0	14016.7	10809.3	3768.3	451.6	29045.9	36344.9	325.1	
% of Developed	35.2	1.7	1.3	3.6	41.8	5.9	13.0	13.1	0.8	3.8	6.6	14.7	100.0	38.5	29.7	10.3	1.2	79.9	100.0	0.8	
% of Total Area	7.0	0.3	0.2	0.7	1.1	1.1	2.6	2.6	0.1	0.7	1.3	2.9	20.0	38.5	29.7	10.3	1.2	79.9	100.0	0.8	
DOWNINGTOWN																					
Acreage	3704.8	110.5	48.5	150.7	4014.5	557.0	1041.1	558.3	55.5	229.5	1858.2	850.4	9164.5	16309.1	9556.8	2899.2	401.6	29166.7	38331.2	306.5	
% of Developed	40.4	1.2	0.5	1.6	43.8	6.0	11.3	6.0	0.6	2.5	20.2	9.2	100.0	42.6	24.9	7.5	1.0	76.0	100.0	0.7	
% of Total Area	9.6	0.2	0.1	0.3	10.4	1.4	2.7	1.4	0.1	0.5	4.8	2.2	23.9	42.6	24.9	7.5	1.0	76.0	100.0	0.7	
KENNETT																					
Acreage	3197.1	30.1	68.0	36.4	3331.5	99.7	952.9	219.8	79.6	117.6	211.5	795.9	5808.5	21310.1	7124.7	2646.2	481.0	31562.0	37370.5	399.5	
% of Developed	55.0	0.5	1.1	0.6	57.3	1.7	16.4	3.7	1.3	2.0	3.6	13.7	100.0	57.0	19.0	9.7	1.2	84.4	100.0	1.0	
% of Total Area	8.5	0.0	0.1	0.0	8.9	0.2	2.5	0.5	0.2	0.3	0.5	2.1	15.5	57.0	19.0	9.7	1.2	84.4	100.0	1.0	
NORTHERN																					
Acreage	4829.4	60.9	107.0	71.2	5068.5	61.3	1273.7	205.9	34.4	225.5	803.5	1197.3	8870.1	27338.9	19686.9	5941.8	1452.6	54420.2	63290.3	1259.5	
% of Developed	54.4	0.6	1.2	0.8	57.1	0.6	14.3	2.3	0.3	2.5	9.0	13.4	100.0	43.1	31.1	9.3	2.2	85.9	100.0	1.9	
% of Total Area	7.6	0.0	0.1	0.1	8.0	0.0	2.0	0.3	0.0	0.3	1.2	1.8	14.0	43.1	31.1	9.3	2.2	85.9	100.0	1.9	
OCTORARO																					
Acreage	1336.2	10.4	51.3	58.0	1455.9	66.1	741.1	185.5	25.4	88.7	157.0	38.4	2758.1	23944.6	6727.9	298.6	1055.1	32026.2	34784.3	298.6	
% of Developed	48.4	0.3	1.8	2.1	52.7	2.3	26.8	6.7	0.9	3.2	5.6	1.3	100.0	68.8	19.3	0.8	3.0	92.0	100.0	0.8	
% of Total Area	3.8	0.0	0.1	0.1	4.1	0.1	2.1	0.5	0.0	0.2	0.4	0.1	7.9	68.8	19.3	0.8	3.0	92.0	100.0	0.8	
OXFORD																					
Acreage	1288.1	12.9	64.6	34.5	1400.0	43.7	1201.1	139.4	37.5	142.8	190.2	912.2	4066.9	35984.6	9838.1	1730.3	576.7	48129.7	52196.6	475.5	
% of Developed	31.6	0.3	1.5	0.8	34.4	1.0	29.5	3.4	0.9	3.5	4.6	22.4	100.0	68.9	18.8	3.3	1.1	92.2	100.0	0.9	
% of Total Area	2.4	0.0	0.1	0.1	2.6	0.0	2.3	0.2	0.0	0.2	0.3	1.7	7.7	68.9	18.8	3.3	1.1	92.2	100.0	0.9	
PHOENIXVILLE																					
Acreage	3672.0	102.5	45.5	236.2	4056.2	237.8	906.4	353.2	87.0	165.4	572.1	528.2	6903.3	10990.6	7496.3	2536.0	813.5	21795.4	28701.7	700.7	
% of Developed	53.1	1.4	6.5	3.4	58.7	3.4	13.1	5.1	1.2	2.3	8.2	7.6	100.0	38.1	26.1	8.8	2.8	75.9	100.0	2.4	
% of Total Area	12.7	0.3	0.1	0.8	14.1	0.8	3.1	1.2	0.3	0.5	1.9	1.8	24.0	38.1	26.1	8.8	2.8	75.9	100.0	2.4	
U.E. BRANDYWINE																					
Acreage	2346.7	23.2	188.2	25.6	2583.7	105.9	1171.5	219.2	42.2	235.3	232.5	409.0	4999.3	32486.0	16244.6	2986.1	689.6	52406.3	57405.6	479.1	
% of Developed	46.9	0.4	3.7	0.5	51.6	2.1	23.4	4.3	0.8	4.7	4.6	8.1	100.0	56.5	28.2	5.2	1.2	91.2	100.0	0.8	
% of Total Area	4.0	0.0	0.3	0.0	4.5	0.1	2.0	0.3	0.0	0.4	0.4	0.7	8.7	56.5	28.2	5.2	1.2	91.2	100.0	0.8	
U. MAIN LINE																					
Acreage	9867.6	127.0	17.1	84.8	10096.5	234.6	1576.1	841.9	152.9	375.0	1419.2	1593.6	16289.8	10794.1	6747.0	2856.1	833.4	21230.6	37520.4	309.7	
% of Developed	60.5	0.7	0.1	0.5	61.9	1.4	9.6	5.1	0.9	2.3	8.7	9.7	100.0	28.7	17.9	7.6	2.2	56.5	100.0	0.8	
% of Total Area	26.2	0.3	0.0	0.2	26.9	0.6	4.2	2.2	0.4	0.9	3.7	4.2	43.4	28.7	17.9	7.6	2.2	56.5	100.0	0.8	
WEST CHESTER																					
Acreage	6521.6	253.3	4.1	185.0	6964.0	161.9	1443.3	337.3	119.9	266.0	846.9	679.9	10819.2	15897.6	7745.9	7407.9	866.4	31917.8	42737.0	472.9	
% of Developed	60.2	2.3	0.0	1.7	64.3	1.4	13.3	3.1	1.1	2.4	7.8	6.2	100.0	37.1	18.1	17.3	2.0	74.6	100.0	1.1	
% of Total Area	15.2	0.5	0.0	0.4	16.2	0.3	3.3	0.7	0.2	0.6	1.9	1.5	25.3	37.1	18.1	17.3	2.0	74.6	100.0	1.1	
COUNTY TOTAL																					
Acreage	41409	881	813	1172	44275	2035	12404	4140	715	2247	7033	8183	81032	248810	113356	36739	7528	406433	487465	5534	
% of Developed	51.1	1.0	1.0	1.4	54.6	2.5	15.3	5.1	0.8	2.7	8.6	10.0	100.0	51.0	23.2	7.5	1.5	83.3	100.0	1.1	
% of Total Area	8.4	0.1	0.1	0.2	9.0	0.4	2.5	0.8	0.1	0.6	1.4	1.6	16.6	51.0	23.2	7.5	1.5	83.3	100.0	1.1	

Based On Delaware Valley Regional Planning Commission 1970 Land Use File
Developed In Cooperation With The Chester County Planning Commission

ECONOMIC TRENDS

Employment And Economic Studies Are Basic To Growth Trends

Employment and economic studies are among the most basic of all planning studies. Population growth is usually limited in the long run by the number of jobs within commuting range. The numbers and types of industries existing or anticipated determines the amount of land needed and its location, its utility services and its labor requirements; and it should help judge whether there is too much or too little industrial land, and whether the proposed industrial land is well located. The numbers, types and earning levels of the employees measures tax-paying ability and the amount of and type of public services demanded and the amount and type of private market retail spending. Earnings, of course, determine amount and price level of housing. Tables are provided of family income levels by municipality and region based upon 1969 earnings.

Because of the large amount of commuting in and out of Chester County and other metropolitan counties, economic studies must be made on a metropolitan area basis. Studies of the economy of Chester County itself are nearly impossible because economic data frequently is unavailable at the municipal level.

Adequate Studies Have Not Yet Been Made Of The Philadelphia SMSA Economy

The Philadelphia region has an unusually diversified economy that in the post World War II years has tended to grow at about the same rate as that of the United States as a whole -- not as fast as parts of the South and Far West but faster than New England. Of the industrial specialties, petroleum refining

and manufacturing have been particularly strong. The city is a Federal regional headquarters and in the past has had strong representation in naval supply and shipbuilding activities. It is not especially strong in hard capital goods let alone any one industrial specialty, but perhaps is more sensitive, as the recent fuel crises demonstrated, to flows of Middle East petroleum. The region has generally lost as a national headquarters location despite a high level of amenity and livability. In some cases there has been recent success with regional headquarters. The region is endowed with higher education institutions of national repute, particularly in medicine.

A study of the Philadelphia region, sufficient for planning purposes, has not yet been made. Some basic work is being done by the University of Pennsylvania Wharton School. The School has developed a Philadelphia region econometric model and the Regional Science Department of the U. of Pennsylvania has prepared input-output analytical tables.

As an emergency measure in 1973, the Delaware Valley Regional Planning Commission attempted some order of interim employment magnitude projections all the way to the Year 2000 by County as one input to their Housing Allocation Plan, but the Commission stressed that these are not adequate for any other purpose. However, the recently revised 1974 DVRPC Work Program does provide for a start on some limited economic projection work to census tract level as part of the continuing update of the transportation simulation process. It is also reported that the newly organized Philadelphia Partnership, a coalition of private sector interests, may also undertake some basic economic studies.

Chester County's Labor Force Is Growing More Rapidly Than Employment Within The County

As an effort to gain a "relatively immediate insight in the current and future employment picture in Chester County", the publication Chester County Employment sums up some of the limited available data on employment, labor force and commutation. The report summarizes data from the 1960 and 1970 Federal Census of Population on composition of the resident labor force, the 1965-1972 overall employment trends from the Federal Census of Business and the only municipal data from manufacturing employment from the Pennsylvania Manufacturing series.

The available statistics are not fully consistent particularly for total employment. It is believed that the data on manufacturing employment is most complete and accurate; less complete and accurate for private service employment.

The table entitled "Selected Summary Population, Labor Force and Employment 1950-1970" summarizes some of the key historical data at the time of the 1950, 1960, and 1970 censuses. The most general conclusion that can be reached from this data appears to be that over the last ten to twenty years total labor force residing in Chester County is rising faster than the number of jobs within the County. This is suggested most specifically by an increase in net out-commutation to work.

In both the 1960 and 1970 censuses Chester County was an out-commuting County with about 6,000 more residents in 1960 leaving Chester County than those commuting into Chester County. By 1970 the net out-commuting had grown to nearly 20,000 for an increase of out-commutation of over 13,000 which has to mean that the labor force had grown faster than jobs within the County.

The same general conclusion is shown independently although not quite as strongly as the comparison of the numerical changes in total

labor and total employment. For example, between 1950 and 1970 the resident labor force in Chester County has grown by about 50,000 persons, yet the number of jobs by only 30,000.

It is expected that during the 1970 to 1985 period the labor force will continue to grow more rapidly than the population as a whole due to the large number of young persons born during the "Baby Boom" now about to enter the labor market. Also during this period the number of women in the labor market will remain high or likely increase.

Projected Employment In Chester County Forecasted To Year 2000

The Delaware Valley Regional Planning Commission has recently prepared tentative employment figures to the year 2000. These figures are presented in a regional format for Chester County at the close of this chapter. The DVRPC figures indicate that the employment of 1970 in Chester County is projected to increase 127% by the year 2000.

The data also shows that non-basic employment proportionately will be higher in the year 2000 than is currently the case. This means that service types of employment will be more prevalent than basic forms of employment (i.e., farming, manufacturing, etc.)

Family Income-1969

MUNICIPALITY AND REGION	\$0 - \$3,999		\$4,000 - \$7,999		\$8,000 - \$11,999		\$12,000 - \$14,999		\$15,000 - \$24,999		\$25,000 - \$49,999		\$50,000 or more	
	No. of families	% of families	No. of families	% of families	No. of families	% of families	No. of families	% of families	No. of families	% of families	No. of families	% of families	No. of families	% of families
AVON GROVE REGION														
Avondale	20	8.2	89	36.3	57	23.3	34	13.9	31	12.7	14	5.7	0	0.0
Franklin	41	12.9	38	11.9	86	27.0	62	19.4	70	21.9	17	5.3	5	1.6
London Britain	17	7.3	48	20.5	88	35.5	32	13.7	26	11.1	22	9.4	6	2.6
Londonderry	37	16.4	57	25.2	79	35.0	25	11.1	25	11.1	0	0.0	3	1.3
London Grove	86	12.6	112	16.4	206	30.2	123	18.0	123	18.0	26	3.8	5	0.7
Now London	47	20.9	35	15.6	60	26.7	26	11.6	31	13.8	26	11.6	0	0.0
Penn	18	8.3	44	20.3	57	26.3	33	15.2	41	18.9	24	11.1	0	0.0
West Grove	59	12.0	126	25.6	177	35.9	71	14.4	96	9.3	14	2.8	0	0.0
West Marlboro	28	10.9	100	39.0	63	24.6	37	14.4	21	8.2	7	2.7	0	0.0
REGIONAL TOTAL	353	12.1	649	22.4	868	22.9	443	15.2	464	16.0	150	5.1	19	0.6
COATESVILLE REGION														
Cain	84	6.2	372	20.3	493	36.8	192	14.3	259	19.3	27	2.0	11	0.8
Coatesville	339	10.6	766	24.1	1045	32.9	479	15.0	458	14.4	69	2.1	19	0.5
East Fallowfield	64	7.0	204	22.5	300	33.1	167	18.4	135	14.9	28	3.0	8	0.8
Madana	11	4.7	75	32.1	100	42.9	17	7.2	27	11.5	3	1.2	0	0.0
South Coatesville	77	17.5	165	37.5	101	23.0	40	9.1	49	11.1	7	1.5	0	0.0
Valley	100	9.8	240	23.5	372	36.4	153	15.0	150	14.7	5	0.4	0	0.0
West Cain	64	8.3	170	22.1	279	36.3	110	14.3	130	16.9	10	1.3	4	0.5
REGIONAL TOTAL	739	9.3	1992	25.2	2690	34.1	1158	14.6	1205	15.3	149	1.8	42	0.5
DOWNINGTOWN REGION														
Downingtown	135	6.9	461	23.8	552	28.6	332	17.2	406	21.0	40	2.0	4	0.2
East Cain	6	2.1	28	10.0	75	26.8	47	16.8	83	29.7	35	12.5	5	1.7
Nowlin	21	10.8	37	19.0	47	24.2	33	17.0	23	11.8	33	17.0	0	0.0
Uwchlan	57	4.3	111	8.4	325	24.6	283	21.4	470	35.6	71	5.3	0	0.0
West Bradford	76	10.2	97	13.0	223	16.6	166	22.3	157	21.1	23	3.0	0	0.0
West Whitland	45	2.5	152	8.5	574	32.2	387	21.7	524	29.4	85	4.7	13	0.7
REGIONAL TOTAL	340	5.4	786	12.5	1796	26.7	1248	19.9	1663	26.6	287	4.5	22	0.3
KENNETT REGION														
East Marlboro	54	6.8	112	14.2	183	23.3	126	16.0	189	24.0	80	10.1	41	5.2
Kennett Square	149	11.7	283	22.2	384	30.1	149	11.7	231	18.1	68	5.3	8	0.6
Kennett Township	68	7.3	183	19.6	183	19.6	131	14.1	180	19.3	138	14.8	46	4.9
Now Garden	141	13.7	295	28.7	266	25.9	143	13.9	128	12.4	50	4.9	6	0.6
Pennsbury	17	4.0	36	8.5	72	17.0	74	17.4	155	36.6	57	13.4	12	2.8
REGIONAL TOTAL	429	9.6	909	20.4	1088	24.5	623	14.0	883	19.8	393	8.8	113	2.5
NORTHERN REGION														
East Coventry	72	8.4	177	20.7	285	33.3	130	15.2	146	17.0	30	3.5	15	1.7
East Nantmeal	21	9.9	60	28.3	59	27.8	13	6.1	44	20.7	15	7.0	0	0.0
East Vincent	32	3.9	143	17.4	302	36.8	174	21.2	136	16.6	32	3.9	0	0.0
North Coventry	140	7.5	429	23.1	529	32.0	299	16.1	307	16.5	78	4.2	5	0.2
South Coventry	51	12.0	88	20.8	127	30.0	87	20.6	46	10.9	19	4.5	4	0.9
Warwick	32	7.0	57	12.6	190	42.0	61	13.4	83	18.3	29	6.4	0	0.0
West Vincent	42	8.4	67	13.5	176	35.5	66	13.3	69	13.9	60	12.1	15	3.0
REGIONAL TOTAL	390	10.4	1021	27.3	1731	46.3	830	22.2	831	22.2	263	7.0	39	1.0
OCTORARO REGION														
Atglen	16	8.2	39	19.9	79	40.3	27	13.8	35	17.9	0	0.0	0	0.0
Highland	29	9.9	57	19.4	108	36.7	30	10.2	47	16.0	17	5.8	6	2.0
Parkasburg	75	10.2	106	14.5	275	37.5	118	16.1	148	20.2	11	1.5	0	0.0
Sadsbury	35	6.3	137	24.7	207	37.3	41	7.4	117	21.1	18	3.2	0	0.0
West Fallowfield	85	18.7	131	28.8	115	25.3	68	14.9	51	11.2	5	1.1	0	0.0
West Sadsbury	34	13.8	55	22.4	88	35.8	17	6.9	43	17.5	5	2.0	4	1.6
REGIONAL TOTAL	274	11.0	525	21.1	872	35.1	301	12.1	441	17.7	56	2.2	10	0.4

Family Income—1969

MUNICIPALITY AND REGION	\$0 - \$3,999		\$4,000 - \$7,999		\$8,000 - \$11,999		\$12,000 - \$14,999		\$15,000 - \$24,999		\$25,000 - \$49,999		\$50,000 or more	
	No. of families	% of families	No. of families	% of families	No. of families	% of families	No. of families	% of families	No. of families	% of families	No. of families	% of families	No. of families	% of families
OXFORD REGION														
East Nottingham	137	21.6	159	25.1	181	28.6	44	7.0	90	14.2	22	3.5	0	0.0
Elk	8	4.8	59	35.8	55	33.3	8	4.8	30	18.2	5	3.0	0	0.0
Lower Oxford	77	16.2	121	25.5	152	32.0	46	9.7	56	11.8	23	4.8	0	0.0
Oxford	123	12.4	314	31.7	282	28.5	129	13.0	131	13.2	10	1.0	0	0.0
Upper Oxford	40	13.4	112	37.6	118	39.6	18	6.0	10	3.4	0	0.0	0	0.0
West Nottingham	40	11.5	133	38.3	92	26.5	43	12.4	29	8.4	10	2.9	0	0.0
REGIONAL TOTAL	425	14.6	898	30.8	880	30.2	288	9.9	346	11.9	70	2.4	0	0.0
PHOENIXVILLE REGION														
Charlottesville	32	6.4	42	8.4	115	23.1	97	19.5	123	24.7	72	14.5	15	3.0
East Pikeland	71	6.5	93	8.6	422	39.1	221	20.5	244	22.6	27	2.5	0	0.0
Phoenixville	366	9.6	774	20.3	1281	33.6	650	17.0	640	16.8	92	2.4	0	0.0
Schuylkill	69	4.8	184	12.9	267	18.7	313	22.0	416	29.2	155	10.9	17	1.1
Spring City	59	6.1	241	25.2	354	37.0	137	14.3	156	16.3	3	0.3	6	0.6
West Pikeland	43	11.0	29	7.4	80	20.5	62	15.9	123	31.6	43	11.0	9	2.3
REGIONAL TOTAL	640	7.8	1363	16.7	2519	30.9	1480	18.1	1702	20.9	392	4.8	47	0.5
UPPER BRANDYWINE REGION														
East Brandywine	45	6.7	85	12.7	217	32.4	108	16.1	173	25.8	35	5.2	6	0.8
Elverson	7	5.8	34	28.3	42	35.0	11	9.1	17	14.1	4	3.3	5	4.1
Honeybrook Borough	23	7.6	64	21.4	136	45.4	30	10.0	46	15.3	0	0.0	0	0.0
Honeybrook Township	71	10.5	215	31.9	249	36.4	54	8.0	72	10.7	15	2.2	0	0.0
Upper Uwchlan	14	6.0	37	15.9	66	28.4	42	18.1	49	21.1	24	10.3	0	0.0
Wallace	9	3.2	71	25.8	98	35.6	18	6.5	66	24.0	13	4.7	0	0.0
West Brandywine	58	7.9	124	17.0	281	38.5	92	12.6	132	18.1	31	4.2	11	1.5
West Nantmeal	25	8.9	40	14.3	123	44.2	22	7.9	64	23.0	4	1.4	0	0.0
REGIONAL TOTAL	252	7.6	670	20.4	1212	37.0	377	11.5	619	18.9	126	3.8	30	0.9
UPPER MAIN LINE REGION														
Easttown	56	2.4	192	8.3	380	16.4	245	10.6	772	33.4	557	24.1	109	4.7
East Whiteland	64	4.1	152	9.8	493	31.9	241	15.6	472	30.6	115	7.4	4	0.2
Malvern	27	3.7	175	24.4	199	27.7	142	19.8	139	19.4	34	4.7	0	0.0
Tradyffrin	210	3.5	461	7.7	733	12.3	649	10.8	2314	38.8	1339	22.4	251	4.2
Willistown	113	5.0	201	8.9	490	21.8	365	16.2	682	30.4	283	12.6	109	4.8
REGIONAL TOTAL	470	3.6	1181	9.2	2295	17.9	1642	12.8	4379	34.2	2928	18.2	473	3.7
WEST CHESTER REGION														
Birmingham	8	4.2	13	6.8	22	11.5	15	7.8	59	31.0	63	33.1	10	5.2
East Bradford	33	4.1	114	14.3	244	30.6	161	20.2	131	16.4	92	11.5	21	2.6
East Goshen	49	3.7	141	10.7	328	25.0	240	18.3	462	35.2	79	6.0	10	0.7
Pocopson	20	6.2	61	19.1	90	28.3	53	16.6	73	22.9	21	6.6	0	0.0
Thornbury	8	3.6	7	3.1	46	20.9	37	16.8	64	29.0	43	19.5	15	6.8
West Chester	320	9.4	764	22.5	1094	32.3	517	15.2	538	15.8	127	3.7	24	0.7
West Goshen	87	2.6	391	12.1	829	25.6	731	22.6	954	29.5	198	6.1	37	1.1
Wastown	29	2.3	79	6.2	226	17.9	266	21.1	482	38.2	152	12.0	26	2.0
REGIONAL TOTAL	554	5.1	1570	14.6	2879	26.8	2020	18.8	2763	25.8	775	7.2	143	1.3
CHESTER COUNTY TOTAL	4866	7.3	11564	17.3	18830	28.1	10410	15.5	15296	22.8	4989	7.5	938	1.4

Source: U.S. Bureau of Census, 20% Sample

Selected Summary
Population, Labor Force, Employment Trends
1950 - 1970

	1950	1960	Numerical Increase	% Increase 1950-60	1970	% Increase 1960-70	% Increase 1960-70	Numeric Increase 1950-70	% Increase 1950-70
TOTAL POPULATION	159,141	210,608	51,467	32.3	277,746	67,138	31.4	118,605	74.5
LABOR FORCE ¹	62,858	80,698	17,840	28.4	113,043	32,345	40.1	50,185	79.8
NUMBER OF LABOR FORCE EMPLOYED IN CHESTER COUNTY	Data Not Available	53,873	---	---	60,017	6,144	11.4	Not Applicable	Not Applicable
NUMBER OF LABOR FORCE EMPLOYED OUTSIDE CHESTER COUNTY	Data Not Available	18,517	----	----	36,687	18,170	98.1	Not Applicable	Not Applicable
NET IN OR OUT COMMUTATION TO WORK	Data Not Available	-5,907	---	----	-19,676	-13,769	233.1	Not Applicable	Not Applicable
TOTAL EMPLOYMENT IN CHESTER COUNTY (CBP)	33,063	46,150	13,087	39.6	72,510	26,360	57.1	39,447	119.3
TOTAL AGRICULTURE EMPLOYMENT	414	136	-278	-67.1	322	186	136.8	- 92	- 22.2
TOTAL CONSTRUCTION EMPLOYMENT	1,836	2,175	339	18.5	2,887	712	32.7	1,051	57.2
TOTAL MANUFACTURING EMPLOYMENT	18,671	24,905	6,234	33.4	36,596	11,691	46.9	17,925	96.0
TOTAL TRANSPORTATION EMPLOYMENT	1,830	2,923	1,093	59.7	3,716	793	27.1	1,886	103.1
TOTAL WHOLESALE EMPLOYMENT	822	1,431	609	74.1	2,921	1,490	104.1	2,099	255.4
TOTAL RETAIL EMPLOYMENT	6,136	7,217	1,081	17.6	10,687	3,470	48.1	4,551	74.2
TOTAL FINANCE, INSURANCE & REAL ESTATE	922	1,130	208	18.4	2,297	1,167	103.3	1,375	149.1
TOTAL SERVICES EMPLOYMENT	2,075	5,734	3,659	176.3	12,566	6,832	119.1	10,491	505.6
DVRPC (Housing Allocation) TOTAL EMPLOYMENT	---	---	---	---	82,147	---	---	---	---
DVRPC (AAM) TOTAL EMPLOYMENT	---	67,745	---	---	88,543	20,798	30.7	---	---

¹ Labor Force in 1950 and 1960 14 years old and over and in 1970 16 years old and over.

Projected Employment in Chester County

REGION	1970 EMPLOYMENT STATISTICS			1980 EMPLOYMENT PROJECTIONS		
	Total	Basic	Non-Basic	Total	Basic	Non-Basic
AVON GROVE	3,233	1,299	1,934	3,912	1,683	2,229
COATESVILLE	13,072	7,539	5,533	16,268	9,434	6,834
DOWNINGTOWN	11,427	7,235	4,192	16,341	10,483	5,858
KENNETT	5,033	2,416	2,617	5,416	2,378	3,038
NORTHERN	3,349	1,821	1,528	4,679	2,665	2,014
OCTORARO	2,188	1,173	1,015	3,417	2,065	1,352
OXFORD	2,670	797	1,873	3,795	1,548	2,247
PHOENIXVILLE	14,137	8,978	5,159	17,608	10,666	6,942
UPPER BRANDYWINE	3,023	1,813	1,210	5,343	3,564	1,779
UPPER MAIN-LINE	20,618	9,374	11,244	29,255	14,205	15,050
WEST CHESTER	18,505	7,231	11,274	24,707	9,900	14,807
COUNTY TOTAL	97,255	49,676	47,579	130,741	68,591	62,150

REGION	1990 EMPLOYMENT PROJECTIONS			2000 EMPLOYMENT PROJECTIONS		
	Total	Basic	Non-Basic	Total	Basic	Non-Basic
AVON GROVE	4,984	2,292	2,692	6,762	3,249	3,513
COATESVILLE	20,236	11,252	8,984	26,373	13,018	13,355
DOWNINGTOWN	15,095	9,719	5,376	26,299	14,647	11,652
KENNETT	6,036	2,281	3,755	7,014	2,227	4,787
NORTHERN	6,750	3,572	3,178	10,078	4,676	5,402
OCTORARO	5,018	2,993	2,025	7,601	4,168	3,433
OXFORD	4,945	2,154	2,791	6,367	2,664	3,703
PHOENIXVILLE	20,682	12,395	8,287	26,159	14,589	11,570
UPPER BRANDYWINE	8,820	5,481	3,339	14,424	7,947	6,477
UPPER MAIN-LINE	37,652	16,789	20,863	48,930	20,209	28,721
WEST CHESTER	31,237	12,597	18,640	41,042	15,779	25,263
COUNTY TOTAL	161,455	81,525	79,930	221,049	103,173	117,876

Source:

Delaware Valley Regional
Planning Commission

POPULATION

It Is Likely That Rate Of Population Growth In Chester County Through 1985 Will Continue To Exceed That Of The Commonwealth And The Nation

During the decade of 1960 through 1970 population in the County grew more rapidly than the population in the nation and in Pennsylvania. Current population estimates indicate no change in this trend, and it would appear that the immediate future will have little change in this trend. Since development is affected by the economic climate and since migration plays a significant role in population growth in Chester County (at least 70% of current growth), change in rate of population growth could occur if development is impeded by a major economic recession.

Chester County is impacted by both the metropolitan Philadelphia area as well as the Wilmington metropolitan area. Growth continues to occur primarily in the eastern and southeastern parts of the County. Certainly the economic well-being of these metropolitan regions will determine the well-being demographically of Chester County.

County Population Has Increased by 100,000 Since 1960

Since 1940 Chester County's population has grown faster than the Commonwealth and the nation. The population of the County has more than doubled since 1940. Also since 1970 it is estimated that between 7,000 and 8,000 persons have been added annually. Chester County has increased in population most particularly in eastern Chester County as a result of location near Philadelphia and Wilmington.

Change In Birth Rate Does Have Impact On Age Structure Of Population

The median age of Chester County declined between 1960 and 1970 reflecting the higher fertility of the "fifties" and early "sixties". However with current fertility declines, it is likely that the County's median age will increase. As the birth rate decreases it is likely that the death rate will increase because a larger proportion of the total population will be of older age.

Age structure is an important demographic characteristic that can be indicative of future population growth. In Chester County a sizable percentage of the female population has recently entered their child-bearing years. These are the females of the "Baby Boom" years (1950's and early 60's). For the most part this age group will determine Chester County's future fertility. Age tabulations are also essential in the computation of basic measures in the analysis of the factors of labor supply and in the study of the problem of economic dependency.

Migration Continues To Provide The Bulk Of The County's Population Growth

Natural increase from 1970 through 1974 was 9,396, which is about 25 percent of the total growth. Therefore, net migration (immigrants - outmigrants) accounted for 75 percent of the total growth. Migration's share of growth has steadily increased from 48 percent in the 1940's, 52 percent in the 50's and 62 percent in the 60's to 75 percent in the first five years of 1970. The number of births in the County has been declining since 1970 while deaths have remained numerically stable, and the birth rate is now down to approximately

12.8 per thousand ----- the lowest since records have been kept (approximately 1910.) The table entitled "Natural Increase 1968-1974" shows the vital statistics for each County municipality for each of the seven years.

Chester County's Population To Continue Displaying Rural Non-Farm Characteristics

For the major part of Chester County's history, the population has essentially been rurally oriented. Even in 1970, 55.1% of all residents were classified as rural residents by the U.S. Bureau of the Census. However, it must be recognized that a majority of these rural residents were non-farm persons living an otherwise urban existence

Our population concentration occurs in the east of the County's area and since 1960 the center of population has drifted a bit more eastward. Opportunities of employment in the eastern part of the County brought about sizable numeric population increases. Eastern Chester County will continue in this century to be the most populous area within the County.

Historically the population of the County has been an agriculturally based one and had grown at a slower rate than the United States. However, since World War II the urbanization process has had an effect upon Chester County's growth. The County's growth rate now outpaces the rate of growth of the nation and the Commonwealth. The future is believed to hold a continued growth for Chester County, one which will far outpace the nation, the metropolitan area; and most of the nearby counties, since the County has abundant land resources.

Two summary tables of population characteristics and housing characteristics are included in this Plan providing a demographic-housing capsule of Chester County's 1970 Census.

Estimates And Projections Of The County's Population

The planning staff estimates the population of the County at 315,602 as of mid-1975. This represents an increase of 37,856

or 13.6 percent since the 1970 census.

The estimates were prepared by using the building permit method; this has been the base method of calculating estimates in the County in the years between the Federal censuses. The building permit method has been found by the Chester County Planning Commission and others, including the Delaware Valley Regional Planning Commission, to be the best method for estimating population of municipalities in Chester County.

The building permit method requires gathering data on building permits issued in each municipality since the last census. This data provides the number of additional housing units. Multipliers are applied to calculate the number of people living in these housing units as follows:

- 3.4 persons per single-family unit
- 2.4 persons per mobile home or townhouse
- 2.3 persons per apartment unit

The resulting figure is an estimate of additional household population. This population plus estimated change in non-household (institutional) population will constitute the population increase above the number counted in the last Federal census.

The building permit data was collected for the period January 1970 through December 1974. The office assumed an average lag of six months from the data a building permit is issued to completion of construction so that the units can be occupied. Current estimates (1975) are included in this chapter.

A major problem in the methodology of population projections for small geographic areas like townships and baroughs is the greater inaccuracy that results partly from the added uncertainties of internal migration and partly from the fact that errors tend to vary inversely with population size. Further, it is true that rate of error tends to vary directly with the rate of population growth and with the length of the projection period.

After 20 years, no method any longer provides accurate forecasts. The longer the

Natural Increase-1968-1974

Region	1968		1969		1970		1971		1972		1973		1974	
	Births	Deaths												
AVON GROVE														
Avondale	29	19	21	11	26	14	25	10	11	16	19	18	29	15
Franklin	9	4	13	6	9	7	9	4	10	5	5	6	7	3
London Britain	5	---	9	5	10	6	4	5	1	8	2	4	0	4
Londonderry	14	3	19	6	14	5	17	5	13	2	9	11	9	8
London Grove	70	24	53	26	49	24	58	29	33	33	39	31	37	29
New London	14	6	15	8	15	9	13	6	13	4	13	10	11	9
Penn	16	11	13	7	15	7	19	7	11	10	15	9	16	6
West Grove	27	19	44	17	44	18	45	21	41	28	35	17	58	29
West Marlboro	10	8	13	3	16	4	16	3	16	5	10	---	8	1
Total	194	94	200	89	197	94	206	90	149	116	147	106	175	107
COATESVILLE														
Cohn	76	47	90	43	106	43	90	58	95	40	84	50	94	44
Coatesville	262	175	235	196	244	167	229	192	201	173	206	157	199	159
East Fallowfield	59	28	56	22	54	26	56	25	33	32	49	20	53	31
Madras	16	7	18	4	14	7	16	6	19	3	11	6	10	4
South Coatesville	20	20	18	14	25	15	26	13	18	10	22	13	18	11
Valley	70	36	70	29	80	46	80	36	65	37	69	30	69	28
West Cohn	52	15	50	11	54	22	53	18	58	18	51	22	62	16
Total	555	328	557	319	577	331	530	328	439	313	492	228	505	293
DOWNINGTOWN														
Downingtown	161	66	192	65	158	84	161	85	137	88	156	71	134	73
East Cohn	20	2	21	7	16	3	15	6	13	6	21	7	18	10
Newlin	10	5	3	4	6	3	13	8	10	4	10	3	4	7
Uechlan	97	11	101	21	131	19	103	25	106	14	81	27	90	23
West Bradford	65	32	56	26	89	35	75	36	82	30	79	42	79	30
West Whiteford	122	35	128	41	121	35	123	43	125	45	105	35	105	42
Total	475	151	501	167	521	179	490	208	473	187	487	187	430	185
KENNETT														
East Marlboro	45	19	39	17	39	22	26	13	30	21	30	36	37	15
Kennett Square	103	69	83	67	134	71	101	75	83	50	78	60	78	54
Kennett Twp.	49	17	30	18	36	26	35	21	43	23	33	31	36	32
New Garden	111	26	101	30	96	31	97	33	103	35	78	28	92	36
Perrybury	19	12	30	4	29	4	22	8	15	11	17	12	19	9
Total	327	143	283	136	334	154	281	150	274	140	236	167	262	146
NORTHERN														
East Coventry	40	11	54	13	36	11	41	22	37	21	35	25	41	20
East Northwal	20	8	14	6	8	6	14	5	12	9	11	6	14	8
East Vincent	60	25	62	22	53	44	43	54	53	34	40	44	43	37
North Coventry	124	51	125	52	172	50	150	52	117	41	139	57	113	43
South Coventry	28	12	25	14	13	17	17	6	11	18	15	17	16	18
Warwick	25	19	20	14	39	15	26	15	33	19	20	18	22	17
West Vincent	21	11	29	7	19	12	15	10	15	13	17	8	19	12
Total	318	187	329	178	345	175	306	164	268	155	278	175	268	155
OCTOPHARO														
Arlton	21	9	10	6	5	12	15	16	16	10	12	12	9	7
Highland	29	6	12	9	11	7	13	10	14	5	14	10	16	6
Parkesburg	42	47	37	34	54	32	30	26	43	33	32	27	44	32
Sabbury	36	24	46	16	47	18	33	25	42	26	54	19	43	17
West Fallowfield	24	18	29	21	39	15	31	9	29	11	39	14	39	14
West Sabbury	17	8	18	11	15	9	18	8	13	7	17	9	13	6
Total	169	112	152	97	171	93	145	94	162	92	168	91	164	82
OXFORD														
East Nottingham	32	22	36	20	39	20	35	20	44	29	33	21	36	18
ER	12	11	12	1	8	7	14	9	5	3	5	5	5	4
Lower Oxford	36	22	42	18	40	22	52	17	39	16	29	12	36	16
Oxford	68	51	77	47	80	34	68	37	67	34	71	40	80	41
Upper Oxford	16	6	18	8	22	9	11	9	14	11	19	6	21	7
West Nottingham	41	20	40	9	40	11	27	15	31	9	41	11	38	14
Total	205	132	225	103	229	103	187	102	200	102	198	95	218	100
PHOENIXVILLE														
Charlestown	25	9	31	11	32	10	19	9	20	15	17	9	19	11
East Pikeland	66	18	60	23	48	19	49	25	43	17	59	20	57	14
Phoenixville	284	175	256	178	267	165	237	162	238	165	268	157	232	177
Schuykill	69	25	55	17	61	28	83	27	53	22	49	28	55	21
Spring City	66	47	55	46	77	43	61	41	55	41	72	31	64	36
West Pikeland	17	12	15	14	13	4	22	10	12	11	15	7	11	15
Total	507	286	473	289	498	274	541	274	421	271	490	252	438	274
UPPER BRANDYWINE														
East Brandywine	37	19	32	12	42	19	36	19	35	22	34	22	38	15
Elverson	7	5	5	6	4	5	5	9	9	7	6	4	4	3
Honeybrook Boro.	19	17	15	5	19	11	21	8	13	8	14	13	18	7
Honeybrook Twp.	67	22	86	23	60	25	77	27	77	30	105	36	91	28
Upper Uechlan	10	2	8	6	10	4	9	7	14	8	11	4	14	4
Wallace	30	5	22	9	24	10	19	7	14	8	18	7	23	6
West Brandywine	33	15	42	22	40	13	41	23	37	18	36	15	24	18
West Northwal	22	7	16	8	17	5	19	5	23	4	19	4	23	6
Total	225	90	226	90	218	91	227	108	228	99	244	107	235	86
UPPER MAIN LINE														
Easttown	109	57	98	58	87	56	76	45	70	50	65	58	45	38
East Whiteford	131	59	103	59	126	56	116	40	93	56	81	53	106	42
Malvern	61	42	53	35	61	35	49	47	43	30	40	23	43	32
Tredyffrin	334	174	292	183	318	133	263	159	224	120	206	146	236	150
Willistown	100	34	101	41	77	60	85	55	93	49	84	33	78	52
Total	735	346	639	376	669	345	587	346	533	304	476	318	513	314
WEST CHESTER														
Birmingham	14	3	13	7	8	3	8	5	9	9	9	8	12	6
East Bradford	23	17	34	23	25	17	17	21	29	25	19	20	23	20
East Goshen	71	12	83	19	84	21	83	23	83	24	64	28	87	25
Pocopson	37	37	20	15	15	37	13	43	12	33	6	47	15	46
Thorbury	3	7	9	4	15	---	6	5	3	6	6	5	4	5
West Chester	323	232	335	230	353	212	353	236	321	200	314	219	318	234
West Goshen	234	73	214	63	238	78	216	62	192	73	177	67	192	78
Westtown	60	26	56	22	62	23	55	26	58	14	43	17	41	20
Total	715	407	764	383	835	391	751	421	710	384	633	441	694	434
Unknown Residence				1					1	1		1		
COUNTY TOTAL	4,425	2,276	4,349	2,228	4,594	2,230	4,273	2,285	3,908	2,164	3,609	2,288	3,902	2,176

Source: Pennsylvania Department of Health

Summary Of Population Characteristics

Municipality And Region	Total Pop. 1970	Est. Pop. 1974	% Increase 1960-1970	Density Persons Per Sq. Mi.	Median Family Income	% Off Family Income Over \$15000	% Of Families In Poverty	Median School Yrs. Completed	No. Block Pop.	% Of Block Pop.	No. Of Persons Spanish Spkg. Lang.	% Of Persons Spanish Spkg. Lang.	Median Age
AVON GROVE REGION													
Avondale	1025	1125	0.9	2135	9227	18.4	5.7	11.6	364	35.5	19	1.9	27.6
Franklin	1043	1130	27.7	69	11804	28.8	3.4	12.1	55	5.3	0	0.0	23.7
London Britain	963	1182	40.4	93	10873	23.1	7.3	12.4	3	0.3	14	1.5	27.3
Londonderry	920	1050	28.1	79	8500	12.4	12.4	10.5	27	2.9	0	0.0	23.0
London Grove	3109	3457	13.7	175	10620	22.6	7.6	11.4	265	8.5	61	2.0	28.1
New London	938	1027	11.0	78	10033	25.3	15.6	11.8	21	2.2	0	0.0	26.6
Penn	989	1243	-9.8	105	11553	30.0	6.0	11.8	86	8.7	0	0.0	26.0
West Grove	1870	1928	16.4	3595	9082	12.2	7.7	11.3	320	17.1	22	1.2	23.7
West Marlboro	917	962	1.8	52	8000	10.9	3.1	11.7	37	4.0	0	0.0	27.1
Total	11,774	13,103	13.0	128	10,018	20.1	7.5	11.6	1,178	10.0	116	1.0	27.4
COATESVILLE REGION													
Coln	6689	8047	0.1	736	10527	24.6	3.3	12.2	1053	15.7	11	0.2	37.9
Coatesville	12331	12710	-4.9	6775	9688	17.2	7.3	11.4	2555	20.7	133	1.1	33.6
East Fallowfield	3487	3735	27.0	222	9911	18.9	3.4	12.1	424	12.2	64	1.8	27.8
Madeno	867	905	0.9	2223	8744	12.9	4.7	9.1	188	21.7	0	0.0	21.2
South Coatesville	1583	1623	-22.1	915	7683	12.8	8.2	9.6	867	54.8	0	0.0	26.3
Volley	3791	3967	22.3	643	9776	15.2	8.4	11.3	1678	44.2	0	0.0	27.7
West Coln	3152	3778	47.3	142	10329	18.8	4.4	12.0	54	1.7	0	0.0	26.7
Total	31,900	34,765	4.5	564	9,790	16.3	6.0	11.5	6,819	21.4	208	0.7	31.8
DOWNINGTOWN REGION													
Downingtown	7437	8076	32.9	3427	10488	23.3	3.8	12.3	557	7.5	0	0.0	27.1
East Coln	1739	2574	129.4	497	13947	44.1	2.2	12.7	37	2.1	84	4.8	21.7
Newlin	1464	1261	-0.9	72	11273	28.9	4.1	11.8	158	10.8	0	0.0	42.4
Urchtan	5473	6681	450.1	519	13754	41.1	4.2	12.8	33	0.6	44	0.8	22.6
West Brodford	2996	4107	78.2	159	11593	24.3	8.9	12.4	55	1.8	0	0.0	29.5
West Whitland	7149	8208	62.0	551	12936	35.0	1.2	12.6	114	1.6	71	1.0	24.8
Total	26,258	30,907	73.5	437	12,185	31.6	3.7	12.5	954	3.6	199	0.8	26.3
KENNETT REGION													
East Marlboro	3031	3301	25.4	175	13036	39.5	4.1	12.6	195	6.4	96	3.2	29.9
Kennett Square	4876	5204	12.0	4925	10209	24.4	4.6	12.0	618	12.7	41	0.8	31.0
Kennett Twp.	3394	3893	12.2	215	12698	39.2	6.6	12.5	246	7.2	147	4.3	33.0
New Garden	4153	4644	11.7	254	8633	17.9	10.7	10.9	378	9.1	134	3.2	25.0
Pennsbury	1763	1972	88.4	170	13806	53.0	4.0	13.4	19	1.1	0	0.0	27.9
Total	17,217	19,019	19.1	289	11,375	31.7	6.4	12.1	1456	8.5	418	2.4	29.4
NORTHERN REGION													
East Coventry	3284	3640	50.4	299	10754	22.3	3.2	12.2	7	0.2	0	0.0	29.1
East Nantmeal	858	961	17.5	52	9883	27.8	4.2	12.5	0	0.0	0	0.0	30.6
East Vincent	5084	4978	-6.8	369	10726	20.5	1.6	12.1	276	5.4	7	0.1	29.7
North Coventry	6690	7436	53.2	475	10422	21.4	5.4	12.2	82	1.2	38	0.6	27.3
South Coventry	1518	1612	25.2	186	10736	16.4	4.7	12.1	7	0.5	0	0.0	30.4
Warwick	1667	1923	16.1	87	10675	24.8	2.4	12.2	0	0.0	0	0.0	29.9
West Vincent	1890	2064	32.1	104	11000	29.1	5.7	12.5	0	0.0	0	0.0	30.0
Total	20,991	22,614	24.9	212	10,608	22.2	4.1	12.2	372	1.8	45	0.2	29.0
OCTORARO REGION													
Atglen	740	813	2.6	860	9833	17.9	0.0	11.3	2	0.3	0	0.0	28.7
Highland	1248	1398	21.3	70	10226	23.8	5.1	12.0	158	12.7	0	0.0	24.8
Parkeburg	2701	2884	-2.1	2178	10533	21.7	7.5	12.1	233	8.6	0	0.0	32.2
Sadsbury	2103	2149	1.8	324	9930	24.3	0.0	12.2	47	2.2	15	0.7	35.1
West Fallowfield	1694	1960	18.9	92	8230	12.3	13.6	11.6	3	0.2	0	0.0	24.9
West Sadsbury	1189	1337	7.9	111	10000	21.1	7.3	8.8	232	19.5	0	0.0	25.8
Total	9,675	10,541	6.3	179	9,830	20.5	6.1	11.6	675	7.0	15	0.2	29.5

Summary Of Population Characteristics

Municipality And Region	Total Pop. 1970	Est. Pop. 1974	% Increase 1960-1970	Density Persons Per Sq. Mi.	Median Family Income	% Of Family Income Over \$15000	% Of Families In Poverty	Median School Yrs. Completed	No. Black Pop.	% Of Black Pop.	No. Of Persons Spanish Spkg. Lang.	% Of Persons Spanish Spkg. Lang.	Median Age
OXFORD REGION													
East Nottingham	2402	2763	4.5	119	8456	17.7	13.6	10.7	41	1.7	0	0.0	27.0
Elk	649	710	20.4	76	8775	21.2	4.8	12.2	1	0.2	26	4.0	25.6
Lower Oxford	2818	3179	-1.4	108	9315	16.6	10.7	12.1	435	22.0	28	1.0	26.8
Oxford	3658	3762	8.4	2066	8542	14.3	9.9	12.2	349	9.5	0	0.0	30.2
Upper Oxford	1122	1178	96.7	112	7914	3.4	7.0	12.1	910	46.4	0	0.0	20.6
West Nottingham	1440	1683	26.6	101	8013	11.2	8.9	11.0	33	2.3	0	0.0	24.0
Total	12,089	13,275	16.8	148	8,535	14.3	10.1	11.7	1,769	14.6	54	0.4	26.9
PHOENIXVILLE REGION													
Charlestown	3528	3135	82.7	280	13825	42.3	2.4	12.7	234	6.6	25	0.7	23.6
East Pikeland	4384	4636	55.6	495	11548	25.1	2.1	12.3	27	0.6	30	0.7	27.2
Phoenixville	14823	16526	7.4	4050	10248	19.2	6.1	11.0	853	5.8	57	0.4	30.1
Schuylkill	5779	5997	67.0	670	13826	41.4	1.0	12.7	18	0.3	91	1.6	27.4
Spring City	3578	3613	13.2	4259	10011	17.3	2.7	11.7	15	0.4	8	0.2	29.2
West Pikeland	1420	1583	81.6	139	14056	45.0	5.4	12.8	2	0.1	0	0.0	30.4
Total	33,512	35,490	29.1	742	12,116	42.1	6.4	11.8	1,149	3.4	211	0.6	28.5
UPPER BRANDYWINE REGION													
East Brandywine	2741	3121	69.4	243	11702	32.0	1.5	12.4	179	6.5	46	1.7	25.3
Elverson	509	522	7.8	509	9700	21.7	0.0	11.2	0	0.0	0	0.0	30.5
Honeybrook Boro.	1115	1233	9.0	2719	9591	15.4	6.0	12.1	13	1.2	33	3.0	29.7
Honeybrook Twp.	2883	3828	82.0	115	8794	12.9	12.5	9.9	14	0.5	25	0.9	23.5
Upper Uwchlen	996	1500	9.6	84	11951	31.5	6.0	12.2	7	0.7	7	0.7	26.7
Wallace	1347	1564	26.5	110	10442	28.7	5.1	12.4	9	0.7	23	1.7	24.5
West Brandywine	2713	3189	62.0	198	10827	23.9	4.3	12.1	53	2.0	0	0.0	27.9
West Nantmeal	1285	1577	32.7	91	9742	24.5	9.0	11.7	16	1.2	34	2.6	20.4
Total	13,589	16,534	45.9	152	10,388	23.5	6.0	11.7	291	2.1	168	1.2	26.3
UPPER MAIN LINE REGION													
Easttown	9565	9886	38.5	1166	18847	64.2	1.8	14.0	238	2.5	235	2.5	29.3
East Whiteland	7242	9117	42.6	655	12973	39.2	2.8	12.6	278	3.8	137	1.9	23.5
Molveno	2583	3117	13.9	2152	10314	24.2	3.1	12.3	162	6.3	31	1.2	27.5
Tredyffrin	23404	25184	45.8	1175	18897	65.9	2.1	14.9	980	4.2	281	1.2	29.6
Willistown	9128	9350	40.6	492	15831	47.4	2.4	13.3	250	2.7	101	1.1	27.9
Total	51,922	56,654	41.3	891	17,277	56.2	2.1	14.0	1,908	3.7	785	1.5	28.3
WEST CHESTER REGION													
Birmingham	834	1093	84.1	127	21271	69.5	2.1	13.9	4	0.5	0	0.0	30.1
East Bradford	3260	3451	90.3	212	12130	30.7	4.8	12.3	138	4.2	0	0.0	27.3
East Goshen	5138	7394	203.3	487	13706	42.1	1.7	12.9	30	0.6	30	0.6	25.9
Pocopson	1556	1978	18.3	184	11294	29.6	5.0	12.4	98	6.3	44	2.8	34.9
* Thornbury	803	882	92.4	368	16875	55.5	1.8	13.8	731	50.9	7	0.9	21.5
West Chester	19301	20999	22.9	10321	10016	20.4	6.1	12.3	3063	15.9	811	4.2	23.0
West Goshen	12858	15272	56.5	1064	13413	36.8	1.5	12.7	451	3.5	101	0.8	26.8
Westtown	5069	5687	160.3	582	15622	52.4	1.4	12.9	33	0.7	28	0.6	26.8
* Total	48,819	56,756	53.6	740	12,731	34.2	3.3	12.6	4,548	9.3	1,075	2.2	25.5
County Total	277,746	309,658	31.9	365	11,609	31.7	1.1	12.4	21,119	7.6	3,294	1.2	27.2

* Probable Census Error - All dormitories of Cheyney State College believed to be in Delaware County.

Summary Of Housing Characteristics

Municipality And Region	Total # Housing Units	# Single Unit Structures	% Of Single Family	Number Multi- Family Units	% In Multi- Family Units	Number Mobile Homes	% Of Mobile Homes	Median Value Of Housing	Owner Occupied		Overcrowded Housing		Housing Locking Plumbing Facilities	
									% Of Occupied Housing	Number Units	Percent Units	Number Units	Percent Units	
AVON GROVE REGION														
Avondale	299	212	70.90	79	26.42	8	2.68	12000	63.64	33	11.1	29	9.69	
Franklin	316	269	85.13	29	9.18	17	5.38	18800	79.29	17	5.5	19	5.95	
London Britain	274	262	95.62	10	3.65	2	.73	26400	78.52	13	4.8	15	5.47	
Londonderry	238	181	76.05	19	7.98	38	15.97	14900	70.34	36	15.3	22	9.24	
London Grove	842	639	75.89	110	13.06	91	10.81	18000	68.62	97	11.6	50	5.93	
New London	259	199	76.83	21	8.11	39	15.06	18200	72.66	25	9.8	13	5.01	
Penn	275	228	82.91	22	8.00	25	9.09	14300	71.85	34	7.4	17	6.18	
West Grove	586	471	80.38	112	19.11	3	.51	13400	68.24	38	6.6	18	3.07	
West Marlborough	274	229	83.58	43	15.69	2	.73	20000	42.01	14	5.2	11	4.01	
Total	3363	2690	80.00	445	13.23	225	6.70	17200	68.70	307	9.3	194	5.87	
COATESVILLE REGION														
Coln	1651	1487	90.07	129	7.81	32	1.93	16700	76.19	116	7.2	29	1.89	
Coatesville	4221	2907	68.87	1306	30.94	5	.12	11000	58.27	229	5.5	194	4.59	
East Fallowfield	1000	793	79.30	93	9.30	114	11.40	18800	82.32	81	8.2	58	5.80	
Modena	218	183	83.94	31	4.22	4	1.83	7600	59.63	30	13.8	28	12.84	
South Coatesville	497	353	71.03	141	28.37	3	.60	9500	58.58	63	13.0	40	8.04	
Valley	1134	904	79.72	183	16.14	47	4.14	11800	71.61	102	9.1	126	11.11	
West Coln	902	730	80.93	44	4.88	126	13.97	15900	83.39	75	8.4	75	8.31	
Total	9623	7357	76.45	1927	20.02	331	3.43	13200	65.74	696	7.2	550	5.72	
DOWNINGTOWN REGION														
Downingtown	2431	1494	61.46	924	38.01	12	.49	14500	55.65	128	5.4	28	1.15	
East Coln	405	244	60.25	10	2.47	151	37.28	40000	40.33	10	2.5	6	1.48	
Newlin	220	192	87.27	18	8.18	10	4.55	15800	72.56	17	7.9	12	5.55	
Urchtlan	1491	1247	83.64	231	15.49	13	.87	29500	78.03	42	2.9	14	0.93	
West Bradford	908	824	90.75	28	3.08	56	6.17	20700	86.27	18	2.0	11	1.21	
West Whiteland	1880	1707	90.80	100	5.32	72	3.83	23700	86.11	84	4.5	18	0.95	
Total	7335	5708	77.82	1311	17.87	314	4.28	22100	71.18	299	4.1	89	1.21	
KENNETT REGION														
East Marlborough	878	779	88.73	79	9.00	20	2.28	28500	70.99	43	4.9	35	3.98	
Kennett Square Borough	1632	1035	63.42	596	36.52	1	.06	29000	54.96	92	8.9	41	2.51	
Kennett Township	1053	915	86.89	80	7.60	55	5.22	16700	73.44	69	4.4	50	4.74	
New Garden	1183	844	71.34	228	19.27	111	9.38	17700	57.72	151	12.9	93	7.86	
Pennsbury	473	460	97.25	12	2.54	1	.21	30800	83.73	14	5.2	5	1.05	
Total	5219	4033	77.28	995	19.06	188	3.60	24000	63.36	369	7.1	224	4.29	
NORTHERN REGION														
East Coventry	986	829	84.08	119	12.07	38	3.85	19600	82.28	35	3.6	16	1.62	
East Nantmeal	280	240	85.71	29	10.36	9	3.21	19300	75.38	15	5.8	24	8.57	
East Vincent	954	755	79.14	118	12.37	80	8.39	20700	80.42	40	4.2	16	1.68	
North Coventry	2305	1515	65.73	762	33.06	23	1.00	17700	61.68	79	3.6	40	1.73	
South Coventry	454	398	87.67	44	9.69	8	1.76	18700	83.37	20	4.6	9	1.32	
Warwick	549	455	82.88	39	7.10	49	8.93	16400	76.46	26	5.1	30	5.46	
West Vincent	581	538	92.60	29	4.99	12	2.07	23300	75.54	25	4.5	21	3.61	
Total	6109	4730	77.43	1140	18.66	219	3.58	19000	70.08	240	3.9	156	2.55	

Summary Of Housing Characteristics

Municipality And Region	Total # Housing Units	# Single Unit Structures	% Of Single Family	Number Multi- Family Units	% In Multi- Family Units	Number Mobile Homes	% Of Mobile Homes	Median Value Of Housing	Owner Occupied		Overcrowded Housing		Housing Locking Plumbing Facilities	
									% Of Housing	Number Units	Percent Units	Number Units	Percent Units	
OCTORARO REGION														
Atglen	239	150	62.76	89	37.24	0	0.00	13100	61.44	10	4.2	5	2.09	
Highland	328	255	77.74	27	8.23	46	14.02	16600	78.02	38	11.8	36	10.97	
Perkasieburg	891	672	75.42	218	24.47	0	0.00	12000	69.72	36	4.1	47	5.27	
Sadsbury	715	486	69.97	217	30.35	12	1.68	14900	68.11	36	5.0	17	2.37	
West Fallowfield	482	384	79.67	55	11.41	43	8.92	16800	74.36	36	7.7	20	4.14	
West Sadsbury	330	276	83.64	31	9.39	22	6.67	14300	78.59	34	10.9	39	11.81	
Total	2985	2223	74.47	637	21.34	123	4.12	14300	69.88	190	6.4	164	5.49	
OXFORD REGION														
East Nottingham	718	564	78.55	42	5.85	112	15.60	13000	74.18	58	8.2	58	8.07	
Elk	195	158	81.03	16	8.21	21	10.77	15200	75.79	14	7.4	15	7.69	
Lower Oxford	591	499	84.43	51	8.63	39	6.60	15700	74.02	53	9.4	54	9.13	
Oxford	1331	792	59.50	525	39.44	14	1.05	13600	51.28	60	4.6	60	4.50	
Upper Oxford	309	269	87.06	25	8.11	14	4.53	14400	73.74	25	8.4	9	2.91	
West Nottingham	391	286	73.15	28	7.16	77	19.69	12000	72.89	45	11.5	38	9.71	
Total	3535	2568	72.64	687	19.43	277	7.83	13800	62.80	255	7.2	234	6.62	
PHOENIXVILLE REGION														
Charlestown	611	564	92.31	45	7.36	0	0.00	30400	77.21	20	3.4	4	0.66	
East Pikeland	1222	1132	92.15	70	5.73	17	1.39	21700	86.52	49	4.1	11	0.90	
Phoenixville	4962	3596	72.47	1362	27.45	2	0.04	12800	65.48	234	4.9	108	3.78	
Schuylkill	1621	1397	86.18	106	6.54	188	11.60	28700	86.28	45	2.8	34	2.09	
Spring City	1288	784	60.87	497	38.59	7	0.54	11100	59.64	41	3.3	23	1.78	
West Pikeland	433	401	92.61	28	6.47	4	0.92	33700	80.91	8	1.9	7	1.61	
Total	10137	7874	77.68	2108	20.80	218	2.15	18200	70.16	397	3.9	267	2.63	
UPPER BRANDYWINE REGION														
East Brandywine	744	659	88.58	57	7.66	27	3.63	19700	81.66	46	6.3	21	2.82	
Elverson	167	136	81.44	27	16.17	4	2.40	12700	76.88	5	3.1	14	8.38	
Honeybrook Borough	365	244	66.85	108	29.59	13	3.56	15400	69.38	21	5.9	9	2.46	
Honeybrook Twp.	794	411	51.76	64	8.06	313	39.42	14300	78.22	91	11.7	64	8.06	
Upper Uwchlan	279	221	79.21	41	14.70	16	5.73	19500	62.50	16	5.9	8	2.86	
Wallace	361	299	82.83	42	11.63	14	3.88	18400	75.29	19	5.5	8	2.21	
West Brandywine	804	637	79.23	60	7.46	105	13.06	17900	80.25	45	5.7	26	3.23	
West Nantmeal	312	234	75.00	37	11.86	36	11.54	16900	76.74	29	9.6	12	3.84	
Total	3826	2841	74.26	436	11.40	528	13.80	17100	75.14	272	7.1	162	4.23	
UPPER MAIN LINE REGION														
Easttown	2523	2325	92.15	198	7.85	0	0.00	38100	85.87	37	1.5	14	0.55	
East Whiteland	1679	1408	83.86	123	7.33	148	8.81	26300	84.25	89	5.4	31	1.84	
Malvern	837	542	64.76	295	35.24	0	0.00	16800	59.75	38	4.7	16	1.91	
Tredyffrin	7031	5235	74.46	1788	25.43	7	0.10	39900	71.31	145	2.1	63	0.89	
Willistown	2570	2273	88.44	289	11.25	3	0.12	32700	80.56	53	2.1	21	0.81	
Total	14640	11783	80.48	2693	18.40	158	1.07	35400	77.44	362	2.5	145	0.99	
WEST CHESTER REGION														
Birmingham	237	221	93.25	15	6.33	0	0.00	49700	80.70	3	1.3	4	1.68	
East Bradford	917	785	85.61	124	13.52	7	0.76	24100	75.98	44	4.9	23	2.50	
East Goshen	1531	1038	67.80	483	31.55	10	0.65	32900	62.19	36	2.4	11	0.71	
Pocopson	356	340	95.50	16	4.49	0	0.00	23800	86.00	10	2.9	12	3.37	
Thornbury	243	228	93.83	15	16.17	0	0.00	31300	85.04	3	1.3	4	1.64	
West Chester	5041	2777	55.09	2261	44.85	2	0.04	15300	46.63	280	5.8	107	2.12	
West Goshen	3989	2875	72.07	1078	27.02	33	0.83	25700	69.67	93	2.4	28	0.70	
Westtown	1371	1220	88.99	149	10.87	0	0.00	32300	88.14	75	5.6	81	5.90	
Total	13685	9484	69.30	4141	30.26	52	0.04	23700	61.26	544	4.0	270	1.97	
Chester County Total	80457	61291	76.18	16520	20.53	2633	3.27	21100	70.17	3931	5.0	2455	3.05	

POPULATION ESTIMATES

Region-Township	Population April, 1970	Population April, 1973	%Increase 1970-1973	Population April, 1974	%Increase 1973-1974	Numeric Increase 1970-1974	Population April, 1975
1. Aven Grove							
Awendale	1,025	1,125	9.7	1,125	0	100	1,127
Franklin	1,043	1,130	8.3	1,130	0	87	1,189
London Britain	963	1,097	13.9	1,182	7.7	219	1,262
Londonderry	920	1,002	8.9	1,050	4.8	130	1,081
London Grove	3,109	3,320	6.8	3,457	4.1	348	3,551
New London	938	1,013	8.0	1,027	1.3	89	1,047
Penn	989	1,094	10.6	1,243	13.6	254	1,388
West Grove	1,870	1,918	2.6	1,928	.5	58	1,955
West Marlboro	917	941	2.6	962	2.2	45	984
Total	11,774	12,640	7.4	13,103	3.7	1,329	13,584
2. Coatesville							
Caln	6,689	6,906	3.2	8,047	16.5	1,358	8,201
Coatesville	12,331	12,659	2.7	12,710	.3	379	12,730
East Fallowfield	3,487	3,619	3.8	3,735	3.2	248	3,928
Madena	867	900	3.8	905	.6	38	911
South Coatesville	1,583	1,614	2.0	1,623	.6	40	1,633
Valley	3,791	3,925	3.5	3,957	1.1	176	3,984
West Caln	3,152	3,512	11.4	3,778	7.6	626	3,967
Total	31,900	33,145	3.9	34,765	4.9	2,865	35,354
3. Downingtown							
Downingtown	7,437	7,731	4.0	8,076	4.5	639	8,467
East Caln	1,739	2,319	33.4	2,574	11.0	835	2,521
Newlin	1,464	1,251	-14.5	1,261	.8	-203	1,427
Uwchlan	5,473	6,572	20.1	6,681	1.7	1,208	6,701
West Bradford	2,996	3,780	26.2	4,107	8.7	1,111	4,374
West Whiteland	7,149	8,154	14.1	8,208	.7	1,059	8,623
Total	26,258	29,807	13.5	30,907	3.7	4,649	32,113
4. Kennett							
East Marlboro	3,031	3,165	4.4	3,301	4.3	270	3,374
Kennett Square	4,876	4,938	1.3	5,204	5.4	328	5,228
Kennett Township	3,394	3,694	8.8	3,898	5.5	504	3,998
New Garden	4,153	4,571	10.1	4,644	1.6	491	4,696
Pennsbury	1,763	1,924	9.1	1,972	2.5	209	2,030
Total	17,217	18,292	6.2	19,019	4.0	1,802	19,326
5. Northern							
East Coventry	3,284	3,501	6.6	3,640	4.0	356	3,735
East Nantmeal	858	913	6.4	961	5.3	103	983
East Vincent	5,084	4,804	-5.5	4,978	3.6	-106	5,039
North Coventry	6,690	7,140	6.7	7,436	4.1	746	7,587
South Coventry	1,518	1,593	4.9	1,612	1.2	94	1,644
Warwick	1,667	1,823	9.4	1,923	5.5	256	1,952
West Vincent	1,890	2,016	6.7	2,054	2.4	174	2,105
Total	20,991	21,790	3.8	22,614	3.8	1,623	23,045
6. Octororo							
Atglen	740	752	1.6	813	8.1	73	758
Highland	1,248	1,357	8.7	1,398	3.0	150	1,458
Perkesburg	2,701	2,881	6.7	2,884	.1	183	2,899
Sodsbury	2,103	2,114	.5	2,149	1.7	46	2,210
West Fallowfield	1,694	1,921	13.4	1,960	2.0	266	1,996
West Sadsbury	1,189	1,270	6.8	1,337	5.3	148	1,403
Total	9,675	10,295	6.4	10,541	2.4	856	10,724

POPULATION ESTIMATES

Region-Township	Population April, 1970	Population April, 1973	%Increase 1970-1973	Population April, 1974	%Increase 1973-1974	Numeric Increase 1970-1974	Population April, 1975
7. Oxford							
East Nottingham	2,402	2,654	10.5	2,763	4.1	351	2,981
Elk	649	696	7.2	710	2.0	61	737
Lower Oxford	2,818	3,134	11.2	3,179	1.4	351	3,153
Oxford	3,658	3,731	2.0	3,762	.8	104	3,771
Upper Oxford	1,122	1,165	3.8	1,178	1.1	56	1,193
West Nottingham	1,440	1,653	14.8	1,683	1.8	243	1,707
Total	12,089	13,033	7.8	13,275	1.9	1,186	13,542
8. Phoenixville							
Charlestown	3,528	3,081	-12.7	3,135	1.8	-393	2,234
East Pikeland	4,384	4,568	4.2	4,636	1.5	252	4,679
Phoenixville	14,823	16,030	8.1	16,526	3.1	1,703	17,332
Schuylkill	5,779	5,953	3.0	5,997	.7	218	6,017
Spring City	3,578	3,599	.6	3,613	.4	35	3,618
West Pikeland	1,420	1,515	6.7	1,583	4.5	163	1,599
Total	33,512	34,746	3.7	35,490	2.1	1,978	35,479
9. Upper Brandywine							
East Brandywine	2,741	3,070	12.0	3,121	1.7	380	3,233
Elverson	509	521	2.4	522	.2	13	523
Honeybrook Borough	1,115	1,226	10.0	1,233	.6	118	1,244
Honeybrook Township	2,883	3,749	30.0	3,828	2.1	945	3,910
Upper Uwchlan	996	1,364	36.9	1,500	10.0	504	1,599
Wallice	1,347	1,513	12.3	1,554	3.4	217	1,621
West Brandywine	2,713	3,053	12.5	3,189	4.5	476	3,218
West Nantmeal	1,285	1,510	17.5	1,577	4.4	292	1,637
Total	13,589	16,005	17.8	16,534	3.3	2,945	16,980
10. Upper Main Line							
Easttown	9,555	9,835	2.8	9,886	.5	321	9,860
East Whiteland	7,242	8,384	15.8	9,117	8.7	1,875	9,045
Molven	2,583	2,898	12.2	3,117	7.6	534	3,148
Tredyffrin	23,404	24,817	6.0	25,184	1.5	1,780	25,373
Willistown	9,128	9,272	1.6	9,350	.8	222	9,358
Total	51,922	55,205	6.3	56,654	2.6	4,732	56,784
11. West Chester							
Birmingham	834	1,018	22.1	1,093	7.4	259	1,238
East Bradford	3,260	3,376	3.6	3,451	2.2	191	3,505
East Goshen	5,138	6,351	23.6	7,394	16.4	2,256	8,199
Pocopson	1,555	1,864	19.8	1,978	6.1	422	2,038
Thornbury	803	851	6.0	882	3.6	79	898
West Chester	19,301	20,897	8.3	20,999	.5	1,698	21,153
West Goshen	12,858	14,652	14.0	15,272	4.2	2,414	15,854
Westtown	5,069	5,480	8.1	5,687	3.8	618	5,795
Total	48,819	54,489	11.6	56,756	4.2	7,937	58,680
Grand Total	277,746	299,449	7.8	309,658	3.4	31,912	315,611

projection period the greater the likelihood of unforeseen developments which can cause the actual population to fall outside the range projected. Similarly, population trends are less regular for small populations than large ones. It is recommended that projections for small geographic areas should be carried out for fewer years than projections for large geographic areas as a whole. Based upon these circumstances it is suggested that there is need for frequent revision of the projections for geographic areas.

Although Internal Migration Is Often An Important Factor In Local Population Growth And It Must Be Taken Account Of In Projections, The Allowance For This Factor Does Not Have To Be Explicit

The various methods for municipality projections include mathematical ratio methods; cohort - component methods; methods using data; and combinations of these methods. The ratio method has primarily been used to allocate the Chester County total that essentially was derived by the cohort survival method (adjusted downward because of declining fertility). Population projections by region and municipality are presented herein. It is projected that the County's population will reach about 385,000 by 1985.

HOLDING CAPACITIES AND COMPARATIVE DENSITIES

Knowledge Of Environmentally Sound Holding Capacity A Basic Need

In approaching the question of the land availability for development it is necessary to have basic statistics on the land available for development of each municipality, planning region and for the County as a whole. These statistics can serve to indicate the amount of space that might be occupied by varying amounts, mixes and densities of development. Some real estate land values and much discussion about the County being built over appear unrealistic in a large County that is still nearly 83 % undeveloped. Development along existing road frontages tends to make the County look more developed to a casual ground level observer than would be the case from the air.

As a guideline, at least 300,000 acres out of Chester County's approximately 487,000 acres would be available and suitable for residential development after deductions are made for industrial, commercial, institutional uses, as well as deductions for unsuitable slopes over 15% and alluvial flood plain soils.

Anyone can make his own assumptions as to average number of units per acre that might be developed. Using four dwelling units per acre this holding capacity would come to 1,200,000 dwelling units. At an average of only 3 persons per housing unit this holding capacity would be about 3.6 million persons. The projected population increase of 70,000 more by 1980, 110,000 more by 1985 and 200,000 more people by the year 2000 will consume only about 22,500 acres, a fraction of Chester County's land.

The Year 2000 residential land consumption would be about 13% of the total acreage of the County. Even with lower density assumptions, it is still clear that ample land is available. Even at one acre per household, less than 90,000 of these 300,000 plus available acres would be consumed by residential growth between now and the Year 2000.

34,000 Acres Of Undeveloped Land Within The 1985 Sewered Areas Exceeds Year 2000 Development Demands

When looking at the undeveloped lands within the Sewerage Plan, one can analyze holding capacities. The table entitled "Land Availability Within The Sewerage Areas" shows for each municipality the net area within the proposed 1985 Sewer Service Area. This is the gross area zoned for residential use minus the generally developed areas as well as flood plains and steep slopes within the 1985 service area. This net area for the entire County encompasses 34,000 acres. However, much of the steep slopes and flood plains can be included as open space in planned residential developments so this might not be excluded from calculations of gross density. Even at a minimum average figure of 34,000 acres at the suggested 4 per acre there would be room within the sewered area for 136,000 housing units -- twice the total projected need of 65,000 dwelling units by the Year 2000 and almost four times the 36,000 needed from 1970 to 1985.

Holding Capacities Measured By Present Local Zoning Ordinances

An attempt was made to estimate actual holding capacity within the sewered areas as now

ESTIMATED RESIDENTIAL LAND AVAILABILITY WITHIN THE 1955 SEWER SERVICE AREA¹
(All Calculations in Acres²)

REGION Municipality	Area To Be Served ¹ (1)	Within 1955 Sewer Service Area								
		Developed Area ² (2)	Undeveloped Land Area ³ (3)	Existing In-Use, Final Land Use ⁴ (4)	Proposed In-Use, Final Land Use ³ (5)	Proposed Commercial Land Use ³ (6)	Gross Undeveloped Land Zoned Residential ³ (7)	Col. 7 Land Environmentally Unsuitable For Develop. ⁴ (8)	Allowance For Setback Development 10% ³ (9)	Net Land Zone #s Available For Development ³ (10)
Arvon Grove										
Ayrville (5)	307	170	137			137	52	9	76	
Franklin	N/A									
London Britain	N/A									
London Grove	2225	813	2112		528	156	676	69	792	
Londonary	N/A									
New London	N/A									
Parr	659	173	435		156	70	230	21	190	
West Grove (8)	377	275	122				50	9	83	
West Marlboro	N/A									
	4238					2545	777	127	1141	
Coatesville										
Coh	3768	1493	2470	64	499	224	1703	76	681	
Coatesville (3)	1184	528	224			224	20	20	184	
East Fallsfield	1504	262	1242		288	13	541	42	378	
Madison (3)	217	112	105				105	0	1	
South Coatesville	845	563	222		156		95	0	0	
Valley	3454	1171	2323	240	230	19	1974	44	372	
West Coh	621	205	416				241	13	157	
	11533						3318	200	1764	
Downstown										
Downstown (5)	1458	455	742		32		720	54	435	
East Coh	2074	992	1052		435		447	21	193	
Newits	N/A									
Uwhan	3760	1197	4553		1109		3405	225	2654	
West Bradford	4154	992	3162		64	38	3500	173	1559	
West Whitland	8230	2652	5358	129	1325		4115	229	2921	
	21645						11957	632	7473	
Kennel										
East Marlboro	903	377	566			83	423	32	290	
Kennel	526	390	526		38		558	36	470	
Kennel Square (3)	491	653	58				33	3	27	
New Garden	1760	640	1120				116	99	637	
Parrabury	3721	3593	123				106	7	20	
	8081						2237	163	1674	
Northern										
East Coventry	1414	339	1075			45	1030	90	811	
East Norwood	N/A									
East Vincent	1696	416	1280	51	384	83	755	39	530	
North Coventry	3442	1605	1677	6	90	160	1421	122	1094	
South Coventry	N/A									
Warwick	N/A									
West Vincent	N/A									
	4592						2265	271	2439	
Octoro										
Alpen (5)	373	129	230				250	19	166	
Highland	102	0	102				102	6	55	
Parraburg (8)	800	345	455				435	33	293	
Sabbury	1184	410	274				774	50	522	
West Fallsfield	N/A									
West Sabbury	1190	160	1030				1030	83	723	
	3851						2391	165	1739	
Oxford										
East Nottingham	902	32	870	58	602	45	165	13	117	
ER	N/A			122						
Lower Oxford	1375	166	1210				1063	73	109	
Oxford (5)	1402	430	922		141		781	67	603	
Upper Oxford	122	0	122				122	12	110	
West Nottingham	N/A									
	3922						2156	219	1737	
Phoenixville										
Charlottesville	325	160	166				166	11	97	
East Fairland	2795	1338	1658		463		1210	65	776	
Phoenixville (5)	2061	1517	544	6	166		372	25	222	
Schuykill	3724	1478	2246		322		1664	123	1154	
Spring City (8)	518	467	51				51	1	4	
West Fairland	N/A									
	9523						3453	231	2720	
Upper Brandywine										
East Brandywine	128	19	109				109	11	93	
Eherson	649	141	499				499	41	359	
Honeybrook (5)	275	198	77				77	8	69	
Honeybrook	1798	160	1633		53	102	1478	136	1227	
Upper Uwhan	N/A									
Wallace	N/A									
West Brandywine	N/A									
West Norwood	158	0	158				158	19	157	
	3027						2349	204	1920	
Upper Main Line										
Easttown	3657	2605	1062				1062	68	793	
East Whitland	6304	2957	3347	339	1331	18	1659	116	1041	
Malvern (8)	736	602	134				134	3	23	
Treafeta	12530	2391	3062		690	45	4129	231	2621	
Willatons	3770	2720	1050		64		56	63	246	
	27130						7938	581	5224	
West Chester										
Brimington	243	51	192				192	16	167	
East Bradford	2221	443	1773		52	6	1709	56	501	
East Goshen	5796	2057	3359		332	83	3424	255	2560	
Pocopson	N/A									
Thorbury	786	205	531				531	44	371	
West Chester (8)	1132	1146	6				6	1	5	
West Goshen	7397	3315	4232	256	774		3252	111	1000	
Westtown	4981	1466	3315	474	6	26	2377	91	2125	
	22655						11923	534	4729	
Totals	122354						5241	17453	3393	34193

¹ As defined by the Chester County Master Sewer Plan, 1970

² As calculated using a Compressing Polar Planimeter

³ Based on municipality zoning ordinance

⁴ Includes lands in flood plains and slopes over 15%

proposed in municipal zoning ordinances. It is somewhat difficult to estimate actual municipal holding capacity because of the wide range of densities permitted in zoning ordinances. Because of this situation two figures have been calculated to display the lesser and greater potential allowable residential densities and potential dwelling units. Detailed tables of these figures are filed in the office of the Planning Commission.

The County totals resulting from these tables show that between approximately 215,000 and 546,000 additional people (about 71,600 and 182,000 dwelling units respectively) can be accommodated within the 1985 proposed sewer service area based on local zoning ordinances and environmental constraints. This is more than the Year 2000 need of 65,000 additional dwelling units.

Greater Understanding Of Density Important To Effective Planning

One of the major variables vital to all the land use issues discussed in this Plan, such as farm land and open space preservation, deals with how much space future residential development will or should take up.

A major suggestion of the Plan is that municipalities, developers and the residents of Chester County give serious consideration to the concept of residential density, and to see whether or not personal and community goals they seek could be met by higher densities than has been the case with much recent development.

Chester County Is Lowest In All Categories Of Comparative Density

The table entitled "Comparative Residential Densities" provides some statistical basis for various ways of looking at and measuring density. It was prepared by cross tabulation of the 1970 Federal Census of Population and Housing with the 1970 Land Use data compiled by the Delaware Valley Regional Planning Commission and others. There may be imperfections in the data, but some useful guidance is provided.

It is apparent from the data that Chester County is lowest in every statistical way density could be measured. Perhaps of all the several approaches the net residential density is the most significant. This is the actual lot size exclusive of streets, parks and all other uses that usually go into computing residential density.

Chester County's overall net residential average is only 1.81 housing units per acre. The other Pennsylvania counties of the Philadelphia Metropolitan Region range from a high of nearly 25 houses per acre in Philadelphia, followed by 4.25 houses per acre in Delaware County, 2.89 in Montgomery County and 2.3 in Bucks County.

The Recent Federal Study On The "Costs Of Sprawl" Found Many Savings From Both Better Planning And Higher Densities

The problem of low density sprawl and scatteration is not only a Chester County problem, but it is found all over the nation, and particularly in the metropolitan regions of northeastern United States. It is recognized as the nation's most serious land use problem.

A consortium of several federal agencies prepared a detailed cost analysis of several alternative patterns of development from a number of ecological, economic, and social viewpoints, and both personal and public costs.

To summarize the results of this effort are beyond what can be done here. Obviously there are many offsetting costs. However, the most general conclusion was summarized as follows:

"The major conclusion of this study is that, for a fixed number of households, sprawl is the most expensive form of residential development in terms of economic costs, natural resource consumption and many types of personal costs."¹

¹ The Costs Of Sprawl, Council on Environmental Quality, Department of Housing and Urban Development and Environmental Protection Agency, April 1974, p. 7.

Comparative Residential Density

Population and Housing			Gross Overall Density			Gross Developed Density			Net Residential Density			Single Family Detached Density		
Municipality And Region	Total Pop.	Total Housing Units	Total Land Area	Persons/Acre	H.U./Acre	Total Developed Acres	Persons/Acre	H.U./Acre	Total Residential Acres	Persons/Acre	H.U./Acre	# Single Family Detached	# Acres Single Family	H.U./Acre
AVON GROVE REGION														
Avondale	1025	299	307	3.33	.97	147	6.97	2.03	71	14.43	4.21	190	68.26	0.36
Franklin	1043	316	8977	.12	.03	500	2.09	.63	520	3.23	.93	257	233.71	1.92
London Britain	953	274	4453	.14	.04	426	2.25	.64	304	3.16	.90	241	299.75	1.24
London-derry	990	233	7336	.12	.03	274	3.35	.85	142	6.47	1.67	197	127.70	0.65
London Grove	3109	842	11578	.26	.07	1143	2.70	.79	565	5.50	1.49	627	511.93	0.82
New London	938	259	7654	.12	.03	435	1.93	.53	282	3.59	.98	197	216.60	1.10
Rezn	989	275	6133	.16	.04	456	2.43	.67	175	5.65	1.57	197	162.37	0.82
West Grove	1870	555	397	4.71	1.47	210	8.90	2.77	155	12.06	3.78	461	149.27	0.52
West Marlboro	917	274	10522	.08	.02	484	1.97	.59	262	3.50	1.04	225	252.68	1.12
Regional Total	11774	3583	59277	.19	.05	4357	2.90	.82	2255	5.22	1.49	2624	2082.32	0.79
COATESVILLE REGION														
Celn	6857	1651	5587	1.19	.29	1957	3.41	.84	873	7.66	1.89	1169	608.62	0.69
Coatesville	12331	4221	1184	10.41	3.56	840	14.67	5.02	411	30.09	10.22	845	183.36	0.22
E. Fallowfield	3437	1000	10202	.34	.09	843	4.13	1.18	554	6.27	1.80	761	502.47	0.67
Modena	657	218	218	3.97	1.00	110	7.63	1.93	63	12.75	3.20	113	54.62	0.48
S. Coatesville	1293	497	1126	1.40	.44	332	4.14	1.30	143	11.06	3.47	210	107.74	0.51
Volley	3791	1134	3808	.99	.29	1523	2.49	.74	450	8.42	2.52	903	387.41	0.43
West Celn	3152	902	14054	.22	.06	1639	1.92	.55	558	5.64	1.61	727	519.09	0.71
Regional Total	31900	9623	36179	.68	.26	7297	4.37	1.31	3057	13.43	3.14	4728	2570.26	0.54
DOWNINGTOWN REGION														
Downingtwn	7437	2431	1403	5.28	1.72	918	8.10	2.64	378	19.67	6.43	777	235.11	0.79
East Celn	1299	405	2490	.69	.16	1127	1.54	.35	302	5.25	1.34	269	255.97	0.98
Newlin	1464	250	7660	.19	.02	265	5.11	.76	140	10.45	1.57	163	134.60	0.80
Uriches	5073	1491	6694	.81	.22	1517	3.60	.98	1068	5.12	1.59	1250	1014.02	0.82
West Bradford	2976	908	11902	.25	.07	1537	1.94	.53	733	4.08	1.23	725	705.63	0.97
West Whiteland	7149	1630	8250	.86	.22	3778	1.89	.49	1389	5.14	1.35	1711	1358.45	0.79
Regional Totals	26258	7335	38484	.68	.19	9165	2.66	.60	4015	6.53	1.82	4971	3704.79	0.76
KENNETT REGION														
East Marlboro	3031	878	9824	.30	.08	1234	2.45	.71	561	5.40	1.56	769	546.28	0.69
Kennett Square	4476	1632	671	7.63	2.36	526	9.28	3.10	301	16.19	5.42	813	268.14	0.33
Kennett Tap.	3374	1053	10784	.31	.07	1630	1.60	.55	1266	2.61	.81	878	1276.23	1.48
New Garden	4153	1183	10176	.40	.11	1209	3.43	.97	584	7.11	2.02	661	508.36	0.59
Pennsbury	1743	473	6630	.26	.07	958	1.84	.47	559	3.15	.84	433	520.10	1.32
Regional Totals	17217	5219	38105	.45	.13	5807	2.86	.87	3332	5.16	1.56	3779	3197.11	0.84
NORTHERN REGION														
East Coventry	3284	985	6995	.46	.14	1321	2.68	.80	631	3.72	1.11	840	880.67	1.07
East Nonmetal	850	290	10515	.08	.02	596	1.43	.46	343	2.46	.80	237	347.76	1.47
East Vincent	5084	954	8794	.57	.10	1595	3.18	.59	762	6.67	1.25	752	716.75	0.97
North Coventry	6890	2005	8589	.77	.26	1787	3.74	1.23	1266	5.28	1.82	1606	1176.72	0.84
South Coventry	1518	454	5030	.30	.09	731	2.07	.62	437	3.11	.91	361	450.39	1.25
Warwick	1667	549	7758	.21	.07	1959	.65	.28	622	2.68	.83	443	364.61	1.26
West Vincent	1890	581	11162	.16	.05	931	1.92	.59	702	2.69	.82	534	700.29	1.31
Regional Totals	29791	6109	56343	.35	.10	6870	2.35	.68	5069	4.14	1.20	4578	4879.41	1.05
OCTOPARTO REGION														
Algon	740	239	525	1.40	.45	162	4.56	1.47	73	10.13	3.27	122	68.23	0.56
Highland	1243	378	10770	.11	.02	604	3.08	.81	173	7.21	1.69	243	163.73	0.67
Parisburg	2201	671	806	3.35	1.10	375	7.20	2.37	233	11.57	3.82	417	194.56	0.47
Sodsbury	2103	715	3868	.52	.18	518	4.05	1.33	344	6.11	2.07	435	308.17	0.70
West Fallowfield	1694	482	11546	.14	.04	110	15.40	4.38	220	6.05	1.72	385	256.45	0.66
West Sodsbury	1187	330	6694	.17	.04	592	2.00	.55	355	3.34	.92	235	347.14	1.47
Regional Totals	9875	2985	34509	.28	.08	2753	3.30	1.08	1456	6.64	2.05	1859	1336.23	0.73

Comparative Residential Density

Population and Housing			Gross Overall Density		Gross Developed Density			Net Residential Density			Single Family Detached Density			
Municipality and Region	Total Pop.	Total Housing Units	Total Land Area	Persons/Acre	H.U./Acre	Total Developed Area	Persons/Acre	H.U./Acre	Total Residential Acres	Persons/Acre	H.U./Acre	#Single Family Detached	#Acres Single Family	H.U./Acre
OXFORD REGION														
East Nottingham	2672	718	12276	.18	.05	720	3.33	.99	300	8.00	2.39	553	280.06	0.51
Elk	647	155	6556	.09	.02	339	1.91	.57	222	2.99	.87	137	199.21	1.45
Lower Oxford	1979	591	11955	.16	.04	603	2.44	.73	245	8.04	2.40	473	234.07	0.49
Oxford	3659	1331	1210	3.02	1.10	454	7.83	2.85	254	14.40	5.24	374	222.77	0.39
Upper Oxford	1981	309	12843	.15	.02	407	4.81	.75	150	13.07	2.65	277	142.25	0.54
West Nottingham	1440	391	8781	.16	.04	1329	1.09	.79	229	6.28	1.70	264	203.72	0.77
Regional Totals	17089	3535	54276	.22	.06	4067	2.97	.86	1400	8.63	2.52	2278	1283.08	0.57
PHOENIXVILLE REGION														
Charlestown	3328	611	8919	.43	.07	1224	2.88	.49	768	4.59	.79	571	763.57	1.34
East Pikesland	4384	1222	5545	.77	.21	1217	3.60	1.00	770	5.69	1.58	1106	731.88	0.68
Phoenixville	16323	4962	7374	6.24	2.09	1692	10.57	3.57	690	21.43	7.19	1826	458.19	0.26
Schuylkill	5779	1621	6942	.85	.25	2187	2.64	.74	1271	4.54	1.27	1358	1226.27	0.90
Spring City	3578	1223	518	6.90	2.37	346	10.34	2.37	225	15.90	5.45	359	131.55	0.37
West Pikesland	1420	433	6923	.22	.06	550	2.67	.81	333	4.26	1.30	392	350.22	0.85
Regional Totals	33512	10077	28921	1.15	.34	5905	5.67	1.70	4056	8.26	2.43	5660	3672.01	0.66
UPPER BRANDYWINE REGION														
East Brandywine	2741	744	7200	.33	.10	976	2.80	.76	702	3.90	1.05	650	679.34	1.04
Elverson	309	167	440	.79	.26	135	3.77	1.23	64	7.95	2.40	138	53.92	0.59
Honeybrook Boro	1115	355	275	4.05	1.32	166	6.71	2.19	103	10.82	3.54	242	97.61	0.40
Honeybrook Twp.	2883	794	16435	.17	.04	856	3.32	.91	393	7.30	2.02	381	305.22	0.60
Upper Merion	956	279	7757	.12	.03	602	1.65	.46	201	4.95	1.38	235	190.22	0.81
Wallace	1342	351	12166	.11	.02	607	2.21	.59	277	4.86	1.30	241	264.91	1.10
West Brandywine	2713	804	8537	.31	.09	959	2.82	.83	522	5.19	1.54	647	457.83	0.71
West Nottingham	1285	312	8582	.14	.03	659	1.85	.45	321	4.00	.97	232	295.55	1.29
Regional Totals	13587	3926	61662	.22	.06	4999	2.71	.76	2584	5.24	1.43	2767	2345.65	0.85
UPPER MAIN LINE REGION														
Easttown	9565	2573	5197	1.84	.63	2743	3.49	.91	2003	4.77	1.25	2301	1924.86	0.90
East Whiteland	7242	1679	6921	1.04	.24	2294	2.42	.56	1134	6.30	1.43	1357	1084.07	0.73
Malvern	2533	837	738	3.44	1.13	395	6.53	2.11	190	13.59	4.40	376	153.52	0.41
Tredyffrin	23307	7031	12653	1.84	.56	6655	3.51	1.05	4194	5.56	1.67	4796	4030.86	0.82
Williamstown	9128	2578	11770	.77	.21	3927	2.36	.72	2576	3.54	.99	2212	2564.15	1.16
Regional Totals	51855	14540	32297	1.39	.39	16289	3.18	.89	10077	5.13	1.44	11172	9567.56	0.68
WEST CHESTER REGION														
Elmington	834	237	3958	.21	.05	572	1.45	.41	331	2.51	.71	209	326.52	1.56
East Bradford	3760	917	9555	.34	.09	1110	2.93	.82	657	4.96	1.39	726	630.44	0.60
East Goshen	5153	1531	4451	.79	.23	1647	3.11	.92	1255	4.09	1.21	992	1230.70	1.24
Poconson	1556	356	5402	.28	.05	652	2.38	.54	432	3.60	.82	338	422.74	1.25
Thornbury	1455	243	2573	.55	.09	622	2.30	.59	362	3.96	.67	242	355.97	1.47
West Chester	19301	5041	1152	16.75	4.37	1077	17.92	4.63	551	33.02	9.14	1040	287.50	2.77
West Goshen	12859	3929	7977	1.69	.52	3451	3.71	1.15	2021	6.35	1.97	2775	1928.01	0.69
Westtown	5069	1371	5530	.91	.24	1676	3.02	.81	1355	3.74	1.01	1264	1339.29	1.06
Regional Totals	49451	13655	42176	1.17	.39	10319	4.57	1.26	6964	7.10	1.96	7646	6521.57	0.85
PHILADELPHIA REGIONAL TOTALS														
Bucks County	415056	121710	40000	1.08	.30	92299	4.47	1.31	52866	7.65	2.30	68813	4308.00	0.49
Chester County	277746	80457	437454	.65	.16	81032	3.42	.99	44275	6.27	1.81	51902	41415.99	0.80
Delaware County	602600	184440	122215	4.90	1.50	60266	9.90	3.04	35105	17.10	5.25	80275	29621.00	0.39
Montgomery County	623799	193992	317764	1.96	.60	118191	5.27	1.63	66905	9.51	2.89	118483	61938.00	0.52
Phila. County	1948569	673524	92053	21.16	7.31	73447	25.82	8.92	27245	71.52	24.72	44431	4644.00	0.15
Pa. Totals	3076310	1253723	1419606	2.16	.63	427534	7.19	2.93	226397	13.58	5.53	383704	182970.00	0.48

This table uses tabulation data from the 1970 Census of Population and Housing with the 1970 Detailed Land Use Survey made by the Delaware Valley Regional Planning Commission. For the first time data is available to permit cross tabulation so as to gain an understanding in a statistical way of different ways to measure residential density. Adequate data is not available beyond the categories listed below.

Gross Overall Density is the number of persons or households per acre related to the entire area of the municipality, both developed and undeveloped rural areas.

Gross Developed Density is the number of persons or housing units per acre only counting the developed areas. Thus commercial and industrial developed areas and streets are included but not undeveloped farms and woodlands.

Net Residential Density is the number of persons and houses per acre counting only the residential land. Thus streets, commercial and institutional as well as rural areas are not counted. Net residential density is thus the actual lot size.

Single Family Detached Density is the number of persons or houses persons or houses per acre of only the single family houses excluding streets.

RECENT DEVELOPMENT TRENDS

A Plan Needs To Recognize Developments That Are Already Committed

A plan must recognize developments that are already committed, since there is a good probability that most will be built in some way. Since 1951, and particularly since the new Pennsylvania Municipalities Planning Code became effective in 1969, the Chester County Planning Commission has reviewed nearly all of the proposed subdivisions and land developments. Even though sometimes subdivisions may not be actually built, as originally submitted, there is in general, a good prospect that something may be built. The proposed developments are the best available factual indication of the actual intent in the land market.

The map entitled "Subdivision Reviews, 1969 through 1974" shows proposed developments comprising ten or more single lot subdivisions, and apartments with 20 or more units. The accompanying tables show the total number of lots and units reviewed and are listed by sub-county planning regions and by municipality.

It is apparent from the map of "Subdivision Reviews, 1969 through 1974" that there is considerable sprawl and that many developments are beyond the limits of the 1985 proposed sewerage area, also indicated on the map. This reflects the needs of developers to seek cheaper building ground where they can find it, even though higher costs in other ways eventually ensue, both to the buyers of the houses and to the public in service costs.

As stated in many other places in the Plan document, one of the major objectives is to curtail this sprawl. However, it is necessary to recognize major commitments.

Subdivisions In Excess Of Building Activity May Be Producing Large Backlog Of Approved Developments

During most of the period of County subdivision review during the 1950's and 1960's the rate of subdivision activity was in reasonable balance with the rate of actual building. During the 1950's according to census data about 17,100 dwelling units were added to the County landscape, or an average of about 1,700 per year. During the 1960's about 21,000 dwelling units or an average of 2,100 per year were added.

During the early 1970's there was an apparent step-up both in the rate of actual building and rate of subdivision activity. The bar chart "Comparative Subdivision Reviews and Building Permits 1968-1974" and the tables "Subdivision Reviews, 1969 through 1974" show recent building and subdivision activity.

It is now apparent that the rate of subdivision activity particularly in 1973 and 1974 averaging around 12,000 units is way ahead of any actual or likely building of about 3,000 units. For the period 1968-1973 inclusive, there were 30,100 units reviewed, and about 13,600 built providing a potential surplus of 16,500.

SUBDIVISION

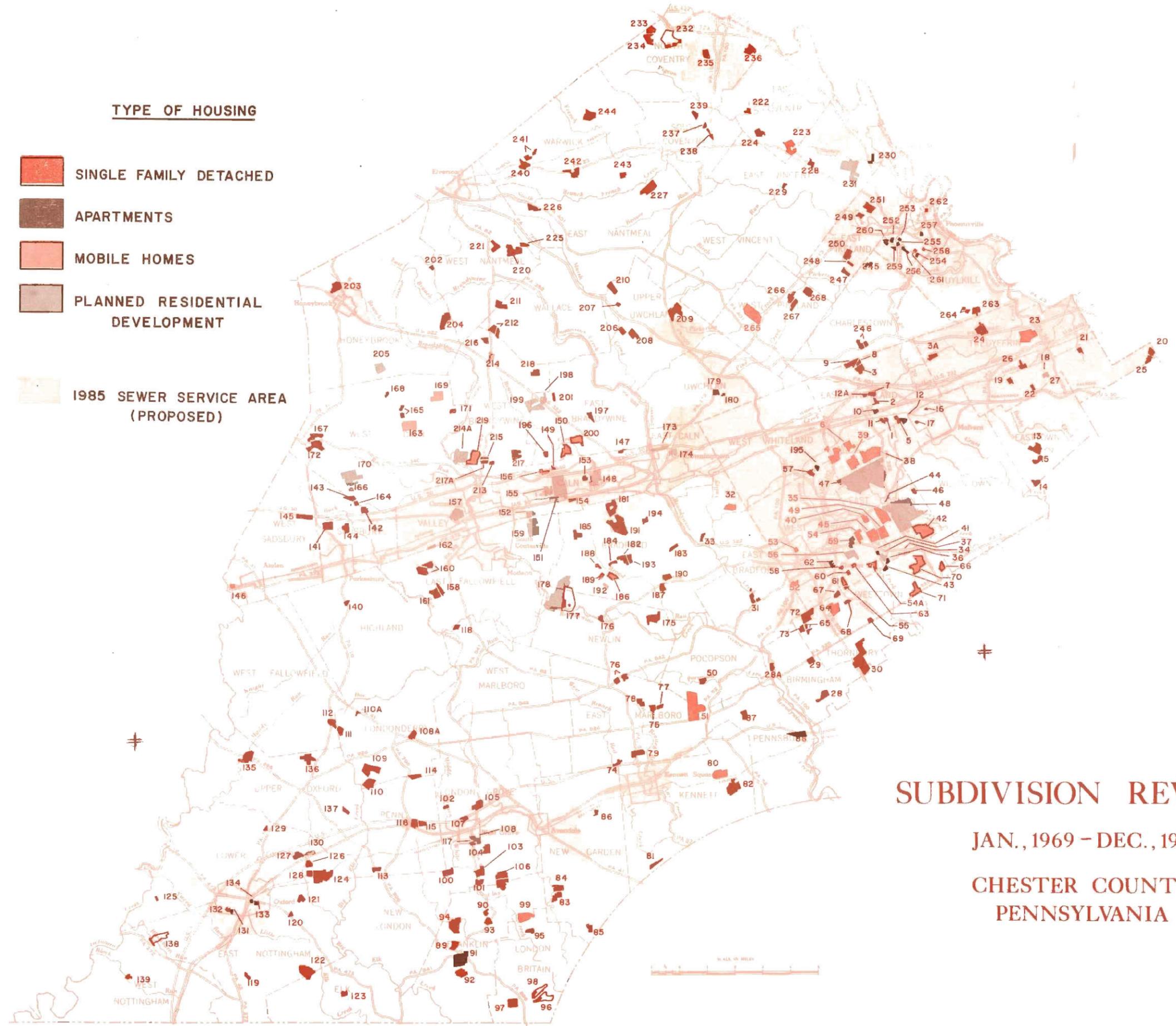
REVIEWS

JAN., 1969 – DEC., 1974

TYPE OF HOUSING

-  SINGLE FAMILY DETACHED
-  APARTMENTS
-  MOBILE HOMES
-  PLANNED RESIDENTIAL DEVELOPMENT

 1985 SEWER SERVICE AREA (PROPOSED)



SUBDIVISION REVIEWS

JAN., 1969 - DEC., 1974

CHESTER COUNTY
PENNSYLVANIA

UPPER MAIN LINE REGION

Map No.	File No.	Municipality	Owner or Applicant	Acres	S. F. L.	Number of Units			Total No.	Date Approved
						Act.	T. H.	M. H.		
1*	1421	E. Whiteland	William M. Calhoun	11	11				11	1/2/73
2*	2078		Robert Bruce	15.7	24				24	8/10/70
3*	2297		Anthony Volpi	39	16				16	12/14/70
4*	2462		Mill Valley +	6	5				5	10/10/72
5	2466		G. V. McKown	27.7	40				40	
6	2467		Ada Lewis Est.	52	42				42	
7	2603		Domino Childberto	12.7	10				10	
8*	2758		Spring Mill Farm Sec. 5	12	12				12	4/19/73
9*	2759		Spring Mill Farm Sec. 6	38	38				38	4/19/73
10	2844		Westgate Associate	23.5		230			230	
11*	2885		Kingsway Estates	12	24				24	10/8/73
12	3108		Laurel Ridge	25		100			100	
12A	3116		Knollbrook	14	13				13	9/10/74
Municipal Total:				228.6	235.2	330			565	
13	2277	Easttown	Joseph Mulray	54	52				52	
14*	2538		Eryn Mavor Homes	25	12				12	7/16/73
15*	3298		Buttenwood Farm	34.7	24				24	8/16/74
Municipal Total:				113.7	88				88	
16	2101	Malvern	Main Line Housing Corp.	3	10				10	
17	2380		K. R. I. South Corp.	20	12				12	
Municipal Total:				23	22				22	
18*	1804	Tredyffrin	W. A. Rayner	20	2	28			30	8/11/69
19*	2075		Leon Erzanjian	18	21				21	5/8/72
20*	2176		2nd Haver Corp.	84.2	24				24	12/25/71
21*	2180		Robert C. Walker	17	13				13	1/16/70
22*	2340		G. V. McKown	15	20				20	4/12/71
23*	2574		Chesterbrook Phase I	112.2	120				120	9/10/73
24*	2657		Raywood Freyberger	72.2	22				22	11/27/72
25*	2761		Glen Hollow	30	33				33	3/26/73
26*	2960		Tollins	38.9	42				42	2/25/74
27*	3231		Arborean	17.3			84		84	8/23/74
Municipal Total:				424.8	297	28	84		409	
Regional Total:				790.1	642	358	84		1084	
WEST CHESTER REGION										
28a	2081	Birmingham	Radley Run	28.1	19				19	
28*	2696		Dillworthtown Oak Est.	63	59				59	4/12/73
29*	3028		Linden Associates	39.9	12				12	3/8/74
30	3031		Wilone Inc.	225	12				12	
Municipal Total:				356	102				102	
31*	2821	East Bradford	Valley Creek	58	58				58	2/12/74
32	2962		Charles M. Dermont	39	24				24	
33	2937		Byran Krick	18	18				18	
Municipal Total:				115	100				100	
34*	2102	East Goshen	Summit House	11.4		134			134	2/15/71
35*	2429		Hankin & Robinson	141.7	160				160	1/22/74
36*	2443		Ridgewood Apt.	44		60			60	4/18/72
4*	2462		Mill Valley+	40	35				35	10/10/72
37*	2463		Goshen Valley	47.3		414	274		688	4/18/72
6*	2467		Ada Lewis Est. +	5	3				3	3/22/72
38*	2517		Hershey Mills	171.23	158				158	8/15/74
39*	2582		Garbone	97.2	115				115	2/19/74
40	2675		Lawrence Ginter	18	35				35	
41	2840		Rose Hill II	3.6			35		35	2/3/74
42*	2870		General Dev. Corp.	138	51				51	1/21/74
43	2883		Paul Stefanik	29.9		384			384	
44*	2921		Marydell Apt.	29.3		384			384	9/18/72
45*	2993		Supplee Valley Farm	100.9	98				98	6/5/74
46	2997		Thorncraft	110	49				49	
47*	3014		Hershey Mills	767.8	2687				2687	11/20/73
48	3255		Bow Tree Farm	534	169	1,336			1,505	
49*	2873		Garbone Brothers	65	73				73	11/1/73
Municipal Total:				2354.3	3633	2712	309		6654	
50*	2191	Pocopsen	Jane Jefopolus	26	11				11	4/8/70
51	3299		Carriage House Invest. +	31.6	8				8	
Municipal Total:				57.6	19				19	
52*	2606	West Chester	Meagha Construction Co.	8	16				16	9/27/72
53*	3234		Lawrence Ginter	5	16				16	9/13/74
Municipal Total:				13	32				32	
54*	2014	West Goshen	Hetherwood Corp.	51	95				95	
54A	2007		Thos. H. Kelly Jr.	77.2	123				123	8/1/72
55	2166		Goshen Terrace	10	12				12	
56*	2229		Brookhaven Homes, Inc.	96.8	164				164	4/3/74
57*	2264		Knollwood	21.4	26				26	8/11/71
58*	2474		West Chester Dev. Corp.	10.5	20				20	1/8/72
59*	2619		Regent's Walk Sec. 3	23		384			384	9/18/72
60*	2715		Glen Constr. Co.	10	20				20	10/26/73
61*	2733		Edward Walsh, Jr.	25	65				65	10/26/73
62	2792		Timber Run Apt.	17.1		232			232	
63	2836		H. & R. Builders	8	19				19	
Municipal Total:				361	544	616			1160	

+ - Indicates that subdivision is situated in more than one Municipality

* - Indicates that subdivision was approved

Map No.	File No.	Municipality	Owner or Applicant	Acres	Number of Units				Total No.	Date Approved
					S. F. L.	Appt.	T. H.	M. H.		
64	2282	Westtown	Westtown Hunt Inc.	76.5	65				65	11/2/71
65*	2378		Sinclair Adam	23	14				14	
66	2416		Black Rose Farm	68.7	56				56	
67	2437		Ted Rubino	25.2	18				18	
68	2662		Co. Line Constr. Co.	15	10				10	
69	2727		Fox Run	11	11				11	
70*	2924		Hoopes & Leam	109	112				112	
71	2948		Land Grant Farms	74	57				57	
72	2998		Sycamore Spring	77	67				67	
73	3136		Hyde Dev. Corp.	26.6	20				20	
Municipal Total:				506	430				430	
Regional Total:				3762.9	4860	3328	309		8497	

KENNETT REGION

74*	1748	East Marlboro	Cedarcroft	14	12				12	12/16/70
75*	2339		John L. Hicks	26.6	22				22	10/9/72
76*	2531		John Clark	86	50				50	6/10/74
77	2831		Quail Hill II	10	10				10	
78	2888		Hick & Beam	30	26				26	
79	3027		John Britton	45.1	33				33	
81	3299		Carriage House Invest. +	115.5	61				61	
Municipal Total:				327.2	214				214	
80*	2318	Kennett	Greenwood Hills Sec. 1,2,3	65.9	35				35	5/14/73
81*	2596		Foxcreek Farms	84.12	62				62	9/17/74
82*	2915		Burrow Run	82	41				41	12/27/73
Municipal Total:				232	138				138	
83*	2112	New Garden	De Francesco	50.5	47				47	7/3/72
84	2765		Landonberg Manor	29.3	27				27	
85*	2908		Valley Inc. Sec. 1	20	22				22	4/2/74
85*	3000		Daddazio & Basclani	18	16				16	11/5/73
Municipal Total:				117.8	112				112	
87	2575	Pennsbury	Fern Hill Sec. 1	33	14				14	
88	3300		Three Hills	44.5	UNITS ARE NOT CALCULATED					
Municipal Total:				77.5	14				14	
Regional Total:				754.5	455				455	

AVON GROVE REGION

89*	2074	Franklin	Blackman	54	14				14	12/15/69
90*	2097		Alfred Roy	21	17				17	10/2/69
91	2139	Franklin	J. T. Blackman	37.8	10				10	
92*	2566		Kambloville West	55.6	38				38	7/6/72
93	2632	Franklin	Gerres Constr. Co.	27.8	13				13	
94	3060		Hackney Farm	102.5	47				47	
Municipal Total:				289.7	139				139	
95	811	London Brittan	Frederick Lang	15	10				10	
96*	1977		Chamber Rock Farm	12	12				12	7/23/74
97*	2260		Foxbrook IV	15	15				15	9/16/72
98*	2445		Dr. Norman Culter	86.6	20				20	9/9/74
99*	2455		Sky Crest	85.3	49				49	3/20/72
Municipal Total:				220.3	106				105	
100	2027	London Grove	D. Edwards	49.9	38				38	
101*	2235		Alfred Roy	28	17				17	8/9/72
102	2450		Guernsey Hollow	12	11				11	
103	2497		Birmingham Realty	52	28				28	
104	2623		Brantham	26	26				26	
105	2803		James Mulhern	32	32				32	
106	2860		DeFrancesco & Sons	25	25				25	
107	2990		Camp II	6	24				24	
108*	3003		Heather Heights	38.8	19	210	310		639	12/5/74
Municipal Total:				244.7	220	210	310		740	
108A	2058	Londonderry	Clemens Foking Marella	38.8	11				11	
109*	2095		Elk Valley Farms	70	45				45	12/6/69
110*	2115	Londonderry	Elk Valley Farms	80	35				35	11/6/72
110A	2456		Joseph R. Pierson	30.2	11				11	
111*	2829		Deeryboth Knoll	16	16				16	7/31/73
112	2847		Hickman Dev. Coop.	54.7	36				36	
Municipal Total:				289.7	154				154	
113	2907	Penn	Christopher Shipp	28.7	22				22	
114	3156		Martin Pepple	37.3	13				13	
115	3178		Mar Bet	27.5	17				17	
116	3199		Red Rose Run	31	30				30	
Municipal Total:				124.5	82				82	
117	2468	West Grove	West Grove Village	13.2		88			88	
Municipal Total:				13.2	28	80	88		88	
118*	2111	West Marlboro	Pine Crest Village	17.4	14				14	5/22/74
Regional Total:				1209.1	715.9	210	398		1323	

OXFORD REGION

119	2321	East Nottingham	Hickman Development Corp.	78.1	32				32	
120	2406		J. Dean Check	12.1	10				10	
121*	2585		Nottingham East Sec. 2	23.9	18				18	7/25/72
122	3517		Hickory Hill Est+	25	16				16	6/17/74
Municipal Total:				139.1	76				76	
123	2753	Elk	Raymond Cashel	62	13				13	
122*	3017		Hickory Hill Est. +	30	15				15	6/12/74
Municipal Total:				92	28				28	

+ - Indicates that subdivision is situated in more than one municipality

* - Indicates that subdivision was approved

Map No.	File No.	Municipality	Owner or Applicant	Acres	S. F. L.	Number of Units			Total No.	Date Approved
						Apt.	T. H.	M. H.		
124*	2500	Lower Oxford	Phillip Steel	170.5	13			13	5/1/72	
125*	2717		Chester Water Auth.	5.3	11			11	3/6/73	
126*	2768		Robert M. Way	22	24			24	6/8/73	
127*	2800		Shannon Pepple	30.3	19			19	4/8/74	
128	2925		Lincoln Green	30	48			26		
129	3119		John Butler	18.3	12			12		
130	3253		Lincoln University	19.2			96	96		
Municipal Total:				330.1	139		96	235		
131*	2057	Oxford	Summit Hill Apt.	4.7		88		88	3/27/69	
132	2414		Saultan & Toner	14.3	39			39		
133	2505		Oxford Homes Inc.	5.39		48		48		
134	2508		Oxford Village Apt.	5.1		60		60		
Municipal Total:				29.5	39	196		235		
135*	2250	Upper Oxford	Francis Perkins	57.1	18			18	9/9/70	
136	2442		Clay C. Hess	75.1	17			17		
137*	2497		George Stewart	9.9	12			12	4/10/72	
Municipal Total:				142	47			47		
138*	2738	West Nottingham	Fox Chase Run+	125	50			50	7/30/73	
139*	2943		Charles C. Shock	101	33			33	7/9/74	
Municipal Total:				226	83			83		
Regional Total:				9587	412	196	96	704		
OCTORARO REGION										
140	2526	Highland	Bleakey	11.7	11			11		
Municipal Total:				11.7	11			11		
141*	2428	Sadsbury	Chester County Fund	62.2	42			42	12/30/71	
142*	2448		Fred Breuninger	25.5	25			25	12/13/74	
143*	2755		Bates and Schulze	25	27			27	4/9/74	
144	3196		Buck Run	49	51			51		
Municipal Total:				161.7	145			145		
145	2552	West Sadsbury	C. G. O. Inc.	186.7	27			27		
Municipal Total:				186.7	27			27		
146	3209	Atglen	Fannington Park	13	23			23		
Municipal Total:				13	23			23		
Regional Total:				373.1	206			206		
COATESVILLE REGION										
147*	1903	Cain	H. Miller Jr.	10	10			10	5/8/73	
148*	2150		Meadowlake Apt.	143		1026		1026	3/13/73	
149*	2271		Granger Place	8.7	15			15	9/15/72	
150*	2563		Ferguson & Flynn	85	55			55	8/21/72	
151*	2573		Thornedale Associates	275		1030	495	1525	9/10/74	
152*	2577		Cain Crest	17.5		100	98	198	9/15/72	
153*	2785		Marq. Dev. Corp.	24	41			41	10/7/73	
154*	2796		Gordon Reed	10	17			17	7/17/73	
155*	2837		Barley Sheaf	38.4			230	230	12/28/73	
156*	3044		Perce & Watson	21.6	23			23	5/16/74	
Municipal Total:				633.2	161	2156	823	3140		
157	3143		Coatesville	Regency Park	91		548		548	
Municipal Total:				91		548		548		
158*	2525		East Fallowfield	Norman Arnold	23	23			23	6/16/73
159	2610	Fallowfield Estates		141.5	76	270	566	912		
160*	2949	Victoria Hills		57	38			38	3/12/74	
161*	3167	Fallowfield Farm		63.4	50			50	9/17/74	
Municipal Total:				284.9	187	270	566	1023		
162	2950	Valley	Valley View	12.31		170		170		
Municipal Total:				12.3		170		170		
163*	2248	West Cain	B. J. Dev. Corp.	84.3			376	376	6/15/72	
164	2551		West Cain Estates	22.8	20			20		
165	2591		Jacob's	120	94			94		
167*	2640		Phillipsville Estates	40.4			40	40		
168	2713		Hevin Myer	50	34			34		
168*	2734		Chester Sattmoff	22	17			17		
143*	2755		Estes & Schulze	29	27			27	4/9/74	
168*	2780		Levan Brothers	60			240	240	3/26/74	
170	3063		Sandy Hill Villages	162.2	150		350	500		
171*	3173		Cedar Knoll II	19.8	16			16	9/26/74	
172	3294		P. C. Patakas	105	66			66		
Municipal Total:				711.5	434	350	656	1440		
Regional Total:				1732.9	782	2596	2787	656	6321	
DOWNINGTOWN REGION										
173*	2151	Downingtown	Belcoo Company	31.5		450		450	5/20/69	
Municipal Total:				31.5		450		450		
174	3235	East Cain	Rubino Ladd Corp.	27.4		245		245		
Municipal Total:				27.4		245		245		
175*	2413	Newlin	Robert Mellvain	84	15			15	2/13/74	
176*	2872		Kucera Bros.	22.6	20			20	10/5/73	
177	2955		Wheatland Villa Farm	51.2	42			42		
178	3109		Bosquete	209.3	127	560		687		
Municipal Total:				367	204	560		764		

+ - Indicates that subdivision is situated in more than one municipality

* - Indicates that subdivision was approved

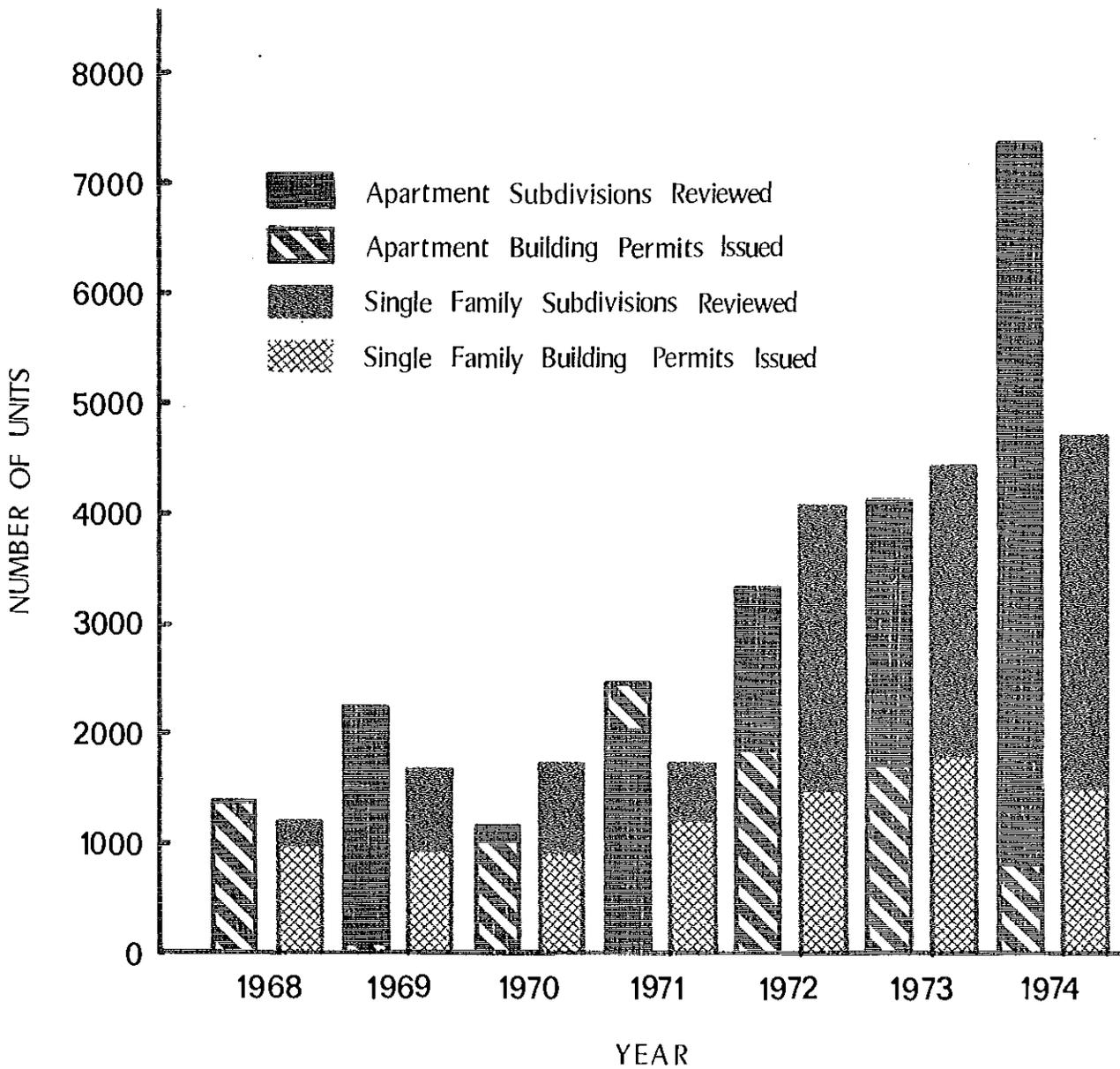
Map No.	File No.	Municipality	Owner or Applicant	Acres	S. F. L.	Number of Units			Total No.	Date Approved
						Apt.	T. H.	M. H.		
179	2663	Uwchlan	Ginter Assoc.	20.4		455			455	
180*	2912		Fred Betz	9.8	17				17	9/13/73
Municipal Total:				30.2	17	455			472	
181*	2067	West Bradford	Colonial Woods	95.8	134				134	
182	2266		Dooglas Turpin	42.2	39				39	
183	2401		Edward Watson	12	11				11	
184*	2439		Overlook Acres	31.2	21				21	2/8/72
185	2489		Broedrun	80	259				259	
186*	2656		Hamilton West Corp.	53	14				14	8/17/73
187*	2658		D. Lawrence	38	20				20	2/13/73
188*	2691		Bonnie Beas	13	12				12	9/27/74
189*	2692		D. Lawrence	19	17				17	8/14/73
190	2729		Robert H. Hodge	20	20				20	
191	2945-A		Phillip Davies	30	30				30	
	2945-B		Phillip Davies	92	97				97	
	2945-D		Phillip Davies	46.5	76				76	
	2945-F		Phillip Davies	12	13				13	
192	3034		Pine Hill	7.2				30	30	
193*	3072		Vishnaski	30	28				28	4/24/74
194	3295		Phillip Davies	21	37				37	
Municipal Total:				642.9	828			30	856	
4*	2462	W. Whiteland	Mill Valley+	42	40				40	
195*	2617		Slavitz	20.6			252		252	
Municipal Total:				62.6	40		252		292	
Regional Total:				1099	1099	1710	252	30	3081	
NORTHERN REGION										
195*	2069	E. Brandywine	Newlin	69.5	12				12	9/4/69
197*	2195	East Brandywine	Joseph Kohler	35.9	23				23	5/18/70
198*	2407		Hedgerow Dev.	60.9	29		148		177	7/17/72
199	2672		Brandywine Manor	109.1	243		72		315	
200*	2770		Hoopes & Tinsel	93	84				84	3/15/74
201*	2995		John Fasol	72	12				12	12/7/73
Municipal Total:				439.4	403		220		623	
202	2554	Honeybrook	Beulah Silder	12.2	10				10	
203	2735		Honeybrook Hill	40	40				40	
204*	2861		Chestnut Tree Village	123.9	35				35	10/8/73
205	3233		Tel Hai, Retirement	125.7			350		350	
Municipal Total:				301.8	85		350		435	
206	2426	Upper Uwchlan	Nobb Hill Inc	35	69				69	
207*	2743		McIntyre & Fleming	11	10				10	
208*	2842		Betz	50.5	43				43	
209	3184		Eagle Hunt	121.7	123				123	
210	3250		McIntyre & Fleming	58.4	42				42	
Municipal Total:				276.6	287				287	
211*	3047	Wallace	Anthony Janiec	45.2	34				34	6/15/72
212	3075		Spring Hill Farm	56.4	23				23	
Municipal Total:				101.6	57				57	
213*	2099	W. Brandywine	Julia E. Reason	11.75	11				11	5/21/73
214	2149		Indian Run Village	29				150	150	
214A	2347	West Brandywine	Beatts Dam	128.3	120	480	60		560	
215*	2379		Dogwood Dell Sec. I	21	14				14	12/22/72
216	2673		Goodfellow	25	10				10	
217	2987		East Eq. Estates	61.4	14				14	
217A*	3012	West Brandywine	Country Castles	51	34				34	6/13/74
218	3085		Springton Glen	45.9	35				35	
219	3212		Land Mark Homes	150	169				169	
Municipal Total:				523.4	404	480	60	150	1094	
220*	2306	W. Nantcoel	Clemens & Forlino	95	24				24	5/5/71
221	2317		Rowdan Inc.	40.6	16				16	
211*	3047		Janica	55.5	11				11	6/15/72
Municipal Total:				191.1	51				51	
Regional Total:				1833.9	1287	480	630	150	2547	
UPPER BRANDYWINE REGION										
222*	2143	East Coventry	Fox Gate Farm	24.2	10				10	10/30/69
223*	2453		Ware Inc.	78.3	63				63	6/5/72
224*	2501		Gambone & Wilson	46	23				23	5/7/73
Municipal Total:				148.5	96				96	
225	2441	East Nantcoel	David Wethrill	21.8	10				10	
226*	2588		John Platt	17	17				17	7/6/72
227*	2600		Annie McAfee	80.9	13				13	12/15/72
Municipal Total:				119.7	40				40	
228*	2723	East Vincent	Realty Investment	40	11				11	6/4/73
229*	2876		Five Brook	30	35				35	6/26/73
230	3066		Garden Apt.	20		206			206	
231	2069		Orbons Bros.	146.7	138				138	
Municipal Total:				136.7	184	206			390	
232*	1896	N. Coventry	Dr. James Marshall	52	20				20	2/27/68
233	2036		Coventry Farms	123.5	48				48	
234*	2089		Coventry Farm Inc.	70.5	26				26	8/23/74
235*	2457		Ferguson & Flynn	34.6	40				40	10/9/72
236*	2588		Glen Oaks Estates	62.9	100				100	12/11/72
Municipal Total:				343.5	234				234	

+ - Indicates that subdivision is situated in more than one municipality

* - Indicates that subdivision approved

Map No.	File No.	Municipality	Owner or Applicant	Acres	S. F. L.	Apt.	T. H.	M. H.	Total No.	Date Approved
237*	931	South Coventry	Wedgewood Acres	20	16				16	6/4/73
238*	2825		RHITex-Oxford	20	23				23	5/7/73
239	3043		Joseph Scafetta	24.5	20				20	
Municipal Total:				64	59				52	
240*	2531	Warwick	Grace Mauger	44.5	14				14	6/12/72
241*	2553		William Park	35.5	16				16	7/72
242*	2840		Censhobocken Constr.	45.9	18				18	4/2/73
243*	2854		Farsette Village	24	11				11	6/4/73
244	2897		Garbone & Wilson	105	21				21	
Municipal Total:				254.9	80				80	
Regional Total:				812.9	693	206			869	
PHOENIXVILLE REGION										
245	2253	Charlestown	Charlestown Park Apt.	21.6		354			354	
246*	2284		Anthony Volpi	51.5	20				20	10/14/71
Municipal Total:				73.1	20	354			374	
247	2152	East Pikeland	Allen L. Bevan	29.7	36				36	7/6/72
248*	2488		Messure Robinson	15	22				22	
249	2762		Midcoast Constr. Co.	17	24				24	
250	2852		Pusey	42	74				74	
251*	2901		Joe A. Fuleo	24	37				37	4/2/74
Municipal Total:				127.7	193				193	
252*	2234	Phoenixville	Kirbarton Springs	5.1		112			112	8/11/70
253*	2251		Joe Fuleo	.6	13				13	5/21/73
254	2294		Emanuel DeMutis	2.2		27			27	
255	2298		Woodlawn Manor	2		44			44	
256*	2304		Joe McAwley	29.9		360			360	10/26/71
257	2312		Phoenixville Apt.	1.9		63			63	
245	2253		Kirbarton Springs +	16.1		144			144	
258	2385		Bevan	2	10				10	
259	2629		Calnes Creek	20.8		188			188	7/21/72
260	2920		Goodman Homes							1/17/74
261	3256		William F. Barrett	2.1	27				27	
262	3316		Lynchberg & Rambo	3	12				12	
Municipal Total:				85.7	62	938			1000	
263	2044	Schuylkill	Valley Forge Mts.	44	44				44	
264	2674		Edward Metroplan	17	14					
Municipal Total:				61	58				44	
265	2020	West Pikeland	Canby Lodge Inc.	129.5	53				53	7/13/71
266	2045		High View Gardens	49.3	10				10	
267*	2046		Walling	40.3	16				16	9/11/72
268*	3171		Poplar Homes	15	22				22	7/6/72
Municipal Total:				234.1	101				101	
Regional Total:				581.6	434	1292			1726	
COUNTY'S TOTAL:				22,537	11,772	10,376	4056	836	27,040	

Comparative Subdivision Reviews and Building Permits 1968 - 1974



Note: All figures are read from zero.

Approximately Half Of Recent Developments
Has Been For Apartments

Another very strang trend of recent years that is expected to continue for the near future is the trend to apartments and other forms of multi-family units. In some recent years (1968, 1970, 1971, 1972) the number of oportment units have exceeded the number of single family units, while for the longer run it is now onti-cipated that apartment units may be less than half. It is likely that there will be a balancing increase in townhouses, duplexes, quad (or four) plexes, and other forms of multi-family housing.

According to preliminary figures from the subdivision review (1968-1974 inclusive), there may be about 5,800 townshouses proposed. Most of these are in planned PRD's. The reality of

present housing costs in relation ta mast incomes may, however, make the tawnhouse the best availoble choice for many families even though they might actually want the conventional single family home.

Higher Density Housing Will Require Adequate
Facilities And Services And They Should Be In
Suitable Locations

The continuing trend toward a wider variety of higher density housing types will require that such housing be in suitable locations where sewers, water, fire protection, recreation and hopefully public transit can be effectively and economically provided. The locations should also be near jobs, shopping and other community facilities. Thus more attention must be given to suitable locations, not just economics of original land costs. It is suggested that the locations described in this Plan could meet these basic planning requirements.

GOVERNMENTAL POLICIES

Introduction

Governmental Programs -- Intended And Unintended Consequences Greatly Affect Chester County Developmental Possibilities

A detailed study of all the governmental policies and programs that affect Chester County development would be a vast effort far beyond the efforts of this Plan. However, it is desirable to try to identify a few of the more important policy implications of the programs and actions of several levels of government as they bear upon this Plan. Governmental actions at all levels are so pervasive that they cannot be avoided. Often there are requirements connected with the increasing federal and state grants that greatly affect land use development. Very often governmental policies in seeking a particular objective have unintended and unrecognized consequences that offset the advantages of these policies.

It is particularly desirable to gain an appreciation as to what extent the individual and collective impact of these many policies are or are not supporting the goals identified in this Plan as the collective goals of Chester County. As well, Chester County residents will have to give much more serious consideration to national goals that affect, for example, energy use, land consumption and protecting farm land.

At first thought, most Chester County residents may think of their township zoning ordinance as the prime developmental control. However, federal, state and regional policy and programs have a profound influence on the general economic, social and legal climate in which Chester County development takes place.

Federal Government Policy

Federal Government Policy Now A Major Force In Land Use Change

The impact of the Federal government on land use change became significant after World War II. This impact has occurred by extending Federal financial aid through categorical grants earmarked for specific programs. For the most part these programs focused upon social and human services, although some increases were made in the community facilities area.

In Chester County some Federal aid was received for public park acquisition and for urban renewal projects like Downing Center. Major funds were received for the Downingtown regional sewer plant upgrading, for improvements in the water and sewer systems of Phoenixville and substantial funds (pending) for the Volley Forge regional sewer system. A considerable portion of the costs of major highways administered through the states is actually federal aid money provided to the states for the primary, secondary and interstate systems.

During the period of the 1960's and early 1970's large sums became available for educational, medical, health, job training, community action and community development purposes. During this period the Chester County Commissioners established new county programs that were largely federally financed and administered through the County. These included the following programs:

1. Community Development Board-
Planning and stimulating programs

in housing and job training education to help persons and families of low incomes, and in other ways provide for overall coordination.

2. Regional Health Planning Council- Health facilities planning is conducted through a Metropolitan Health Planning Council serving the entire Philadelphia metropolitan area. However, there is a Chester County committee that works exclusively on Chester County problems within the larger framework. There is a specialized health planner assigned primarily to Chester County problems.
3. Emergency Medical Planning - The County has an Emergency Medical Planning Council to coordinate a number of public and private agencies concerned with emergency medical services.
4. Criminal Justice Planning - The County Commissioners have established a criminal justice planning program to improve crime prevention and the criminal justice system, financed largely through Federal law enforcement assistance grants.
5. Manpower Training and Planning - The County Commissioners have organized a manpower training program financed through Department of Labor funds.

It is hoped that these federally financed human services agencies will develop comprehensive plans for their respective functions that are effectively coordinated with this Plan.

Federal Policies In Housing Have Had An Effect In Chester County

Not until the 1960's did the Federal government become seriously concerned about the soaring costs and the inadequate supply of housing

for low and moderate income families. Chester County did develop a modest but highly successful program of 459 units of public housing sponsored by the Chester County Housing Authority in West Chester, Coatesville, and Phoenixville to provide for some of the greatest housing needs. A start has been made on the Section 235 and other interest rate subsidized programs in Kennett Square before the programs were suspended in January, 1973.

The recently passed Housing and Community Development Act of 1974 is a marked departure from previous HUD legislation. It replaced a number of specific categorical grants with a form of special revenue sharing for community development. These revenues are contingent, among other things, upon the recipients developing a housing assistance plan and acceptance of regional housing allocations. The County Plan does recommend residential areas of relatively high density near centers of employment, near available transportation, near shopping and serviced by utilities.

More Flexible General And Special Revenues Will Increase County And Municipal Planning Demands

It is expected that the Federal government revenues will increasingly finance local public facilities and services. There is a tendency in some programs to relax the detail of the Federal supervision required. The most extreme relaxation is the "General Revenue" sharing whereby such funds may be used for nearly any lawful public purpose. Chester County has used its general revenue funds primarily for additional building acquisition, thus saving a bond issue at a time of high interest rates.

The recently adopted "Housing and Community Development Act of 1974" is the first major move toward the special revenue sharing approach in community revitalization. It reduces the complexity of the application and review process, broadens the purposes for which money can be used, and yet hopefully requires some reasonable efforts to address national policy needs such as lower cost housing and better land use

planning. The funds are made available on a formula related to need.

It is expected that the new programs will be helpful to Chester County and its municipalities to meet their needs. As of September 1974 the money available to Chester County under the new act had not yet been determined. The new grants are based upon a formula which includes the number of low income persons and other measures of social needs, which may be an offsetting factor in Chester County due to higher median family incomes.

State Government Policies

State Government Is Now Becoming More Active In County Government

In recent years the Commonwealth of Pennsylvania has become more involved in planning-related activities that affect Chester County. Although supported by Federal funding, administration of programs so funded is by the state. These include such programs as 701 Planning assistance, highway construction and sewerage improvements. Also, the state executive, legislative and judicial branches establish the entire legal system in which planning operates. Some of the major trends in state activities would include:

State Assumes More Financial Responsibility In Regard To Public Schools - The greatest area of state effort is in financing public schools, which now takes over half the state budget. Since the end of World War II, the state has gradually been assuming more and more of total school costs. From the viewpoint of land use planning, it is hoped and expected that state equalization of school taxes will continue to the point that it will make little difference what the land uses will be in terms of local taxes. Elimination of the need for fiscal zoning at the municipal level would be a great incentive to overall improvements in land use planning.

The State Also Helps With Open Space And Other Planning Funds - Many other state funding projects and state services have proved use-

ful to Chester County municipalities other than the major school, highway and environmental funds. Some of the most used funds were the Project 70 and Project 500 open space and recreation grants, the SPAG (State Planning Assistance Grants) which replaced the earlier Federal 701 funds as the only source of funding for planning assistance, special central business district studies, help for Community Action Board financing and many others.

State Land Use Planning Now Being Discussed - There has been much discussion in recent years about the need for the State governments to reassert a leadership role in general land use development. While there have been several public conferences and much inter-agency discussion among several state departments, no active state land use program is yet underway.

There Is Now Major County And Local Input Into The Transportation Planning Process - There has been great improvement in the highway and transportation process over the years. Environmental, social, economic as well as engineering considerations of transportation planning and development are now considered. This greater complexity and the increased costs, however, have greatly slowed the capacity to plan and build highways.

The Pennsylvania Department of Transportation now looks to the Chester County Planning Commission as a major partner in the transportation planning process. The County recommendations on priorities are given considerable weight, and thus can influence and partially shape state and federal expenditures to the highway needs of Chester County residents. However, we must be guided by the many technical requirements of the state and federal programs. The increased emphasis upon public transportation also gives the County some additional tools to build a more compact and economical land use structure.

Environmental Planning Particularly For Water And Sewer Is A Major New Area Of State Concern - A major new area of state responsibility is in the environmental area. Activity began with the first Clean Stream Law of 1947. It continued slowly during the 1950's and 1960's at

a time when the Pennsylvania Department of Health attempted to struggle with the problems of septic tanks and stream pollution caused by rapid suburban development.

Perhaps one of the first milestones was Act 537 of 1966 which required every municipality to prepare and adopt an official sewerage plan. Chester County's plan in 1968 was one of the first breakthroughs.

During the late 1960's and early 1970's federal and state environmental legislation came in a flood. Both the U. S. Environmental Protection Agency and the Pennsylvania Department of Environmental Resources were established.

It has taken several years for these agencies to get into full operation, and their effects upon Chester County development have only started to be effective. The Pennsylvania DER has undertaken a comprehensive state planning process for water resources planning, which has particularly raised concern in Chester County about the availability of adequate water for present and future needs. Pennsylvania DER is about to begin an elaborate and detailed water quality planning program (COWAMP) which is expected to be a major basis for refinement of the County Act 537 Master Sewerage Plan.

Some Modernization Has Taken Place In State Enabling Legislation For Planning - The state government, of course, establishes the enabling legislation under which planning operates. After twelve years of effort the Pennsylvania General Assembly passed the present Municipalities Planning Code in 1968. At that time, despite many compromises, the legislation was relatively new. Since then a number of additional concepts relating to timing of development, possible use of transferable development rights and greater environmental review have come about that have not been fully reflected in the legislation.

Regional Agencies

In addition to the federal and state governments, several major planning and operating

agencies for the larger Delaware Valley region have been established. The Chester County Planning Commission has maintained a close working relationship with these agencies.

Chester County has been a member of the Southeastern Pennsylvania Regional Transportation Authority since it was founded in 1963. Without SEPTA, public transportation in the region would have ended long ago. The SEPTA organization utilized the existing commuter rail network, considered one of the nation's best.

The SEPTA organization continues to be of benefit to Chester County development. The first fruits of the rebuilding program are now becoming apparent. Some new cars are on the rails replacing the 60 year old rail cars. After ten years of planning, the Exton commuter station is becoming a reality, and other station rehabilitations and parking expansions are being discussed.

At the request of the County Commissioners, SEPTA is actively seeking to acquire the Octorara Branch of the Penn-Central. Also, discussions have been held with the SEPTA staff and the County Planning staff on what would be an optimum bus network for Chester County, if and when sufficient operating subsidies become available.

The Land Use Plan Lends Itself Well To Public Transportation

The major public transportation possibilities are shown on the map entitled, "Public Transportation". This system provides for rail service on all three corridor railroads: Main Line, Schuylkill Valley and Octorara. Bus service would also be resumed or strengthened along the corridors and new bus lines would be established between West Chester and King of Prussia via Paoli. All existing commercial, industrial and residential centers would be served and West Chester would be a special junction point accessible from all parts of the County.

Areas beyond the urbanized area would have to be served by car pools and em-

ployer/agency or community vans that would interconnect with the bus and rail routes or with major commercial or employment centers.

It is apparent that SEPTA is trying to serve Chester County within their financial limits. It is anticipated that the world-wide increased costs of fuel and auto operation may make public transportation again more important.

Delaware Valley Regional Planning Commission Will Become More Of A Factor Influencing Chester County Planning

During its early phase as the Penn Jersey Transportation Study from 1959 through 1965 the Delaware Valley Regional Planning Commission activities were confined primarily to technical transportation planning matters and affected only the extreme eastern portion of Chester County within the so-called "cardan line". Since their reorganization as the Delaware Valley Regional Planning Commission in 1965, their activities have increasingly affected all of Chester County, even in planning matters beyond transportation.

For example, nearly all applications for federal aid have to be processed through Delaware Valley Regional Planning Commission's Project Notification and Review System (PNRS) and many have to be in conformance with regional planning. So far, the Chester County Planning Commission working with the Delaware Valley Regional Planning Commission has been able to meet the planning requirements so as to keep the region certified and the federal funds flowing.

The Delaware Valley Regional Planning Commission has underway major planning programs in highways, public transportation, water supply, waste water disposal, open space, population and housing. Increasingly, technical material and data has been and is coming from Delaware Valley Regional Planning Commission including the five year aerial photo program, land use data utilized in this report, some maps of regional natural features, and projections of population and employment.

The Delaware Valley Regional Planning Commission will increasingly play an important coordinating role among federal, state and municipal planning. The major role of the Delaware Valley Regional Planning Commission is to meet federal and state regional planning requirements needed to keep large sums of federal aid forthcoming.

Delaware Valley And Chester County Plans Are Generally In Agreement

The Chester County Planning Commission has worked together with the Delaware Valley Regional Planning Commission to reach a consensus on nearly all planning issues so that in nearly every case the metropolitan, county, state and municipal plans are similar.

Recently the Chester County Planning Commission adapted changes to the twelve Year Highway Program. These amendments have been processed through the Delaware Valley Regional Planning Commission, and they will be added to the PennDOT highway plan.

The Chester County Act 537 Plan for sewers and the Delaware Valley Regional Sewer Plan are virtually the same. The County's Water Supply Plan is also generally in agreement with the Water Supply Plan of Delaware Valley Regional Planning Commission.

The Delaware Valley Land Use Plan recommended an overall land use plan based upon a corridor-center concept. The Delaware Valley Regional Planning Commission Plan recommended large multi-purpose centers of Exton and near West Chester and Phoenixville. Generally, the Delaware Valley Regional Planning Commission Plan and the County Plan are in agreement.

Regional Project Notification And Review System Helps Coordinate Public Programs

One of the chief responsibilities of the Delaware Valley Regional Planning Commission is to administer the required Federal Project Notification and Review System. Regional review is needed for most applications for federal aid, particularly those involving physical facilities

RAIL AND BUS COMMUTER TRANSPORTATION TO SERVE MAJOR POPULATED AREAS OF CHESTER COUNTY

Commuter transportation (bus and train) existing and planned will provide service for the populous areas of Chester County: Chester Valley, Schuylkill Valley, West Chester area and the Rt. 1 Corridor. Expansion of existing services is being studied and would entail providing more trips per day in some cases and extending or providing new service in other cases.

Primary rail commuter service has been and will continue to be provided along the "Main Line" of central Chester County. Commuter service is and will continue to be available to Phoenixville, Royersford and Pottstown along the Schuylkill Valley; and as well between West Chester via Media to Philadelphia. Commuter traffic along the Route 1 corridor is a possibility for the future if the Octoraro Branch is reactivated.

Bus lines follow the same corridors that the rail lines utilize. In addition, there is interconnecting bus service with West Chester serving as the hub.

The possibility of extended service to King of Prussia from West Chester is being studied. As service is extended and increased, it is hoped that public transportation will serve a majority of the residents of Chester County.

BUS SERVICE

No.	Point to Point Service	Trips/Day ¹	Company
EXISTING			
1.	King of Prussia - Pottstown	7	Werner
2.	Coatesville - Downingtown - Exton - West Chester	11	Reeder
3.	Exton - Wynnewood	11	SEPTA
4.	West Chester - Pott ²	2	Reeder
5.	West Chester - 69th, Street	42	SEPTA
6.	West Chester - Concord Mall, Delaware ²	1	Reeder
7.	West Chester - Chester - Phila. International Airport ³	1	Reeder
8.	West Chester - Oxford	1	Reeder
9.	Phila. - Baltimore	2	Trailways
PROPOSED			
10.	Extend # 2 to include Parkersburg		
11.	Downingtown - Lionville - Eagle - Exton - West Chester		
12.	Extend # 4 to King of Prussia		

¹ Number of trips/day from each end of run

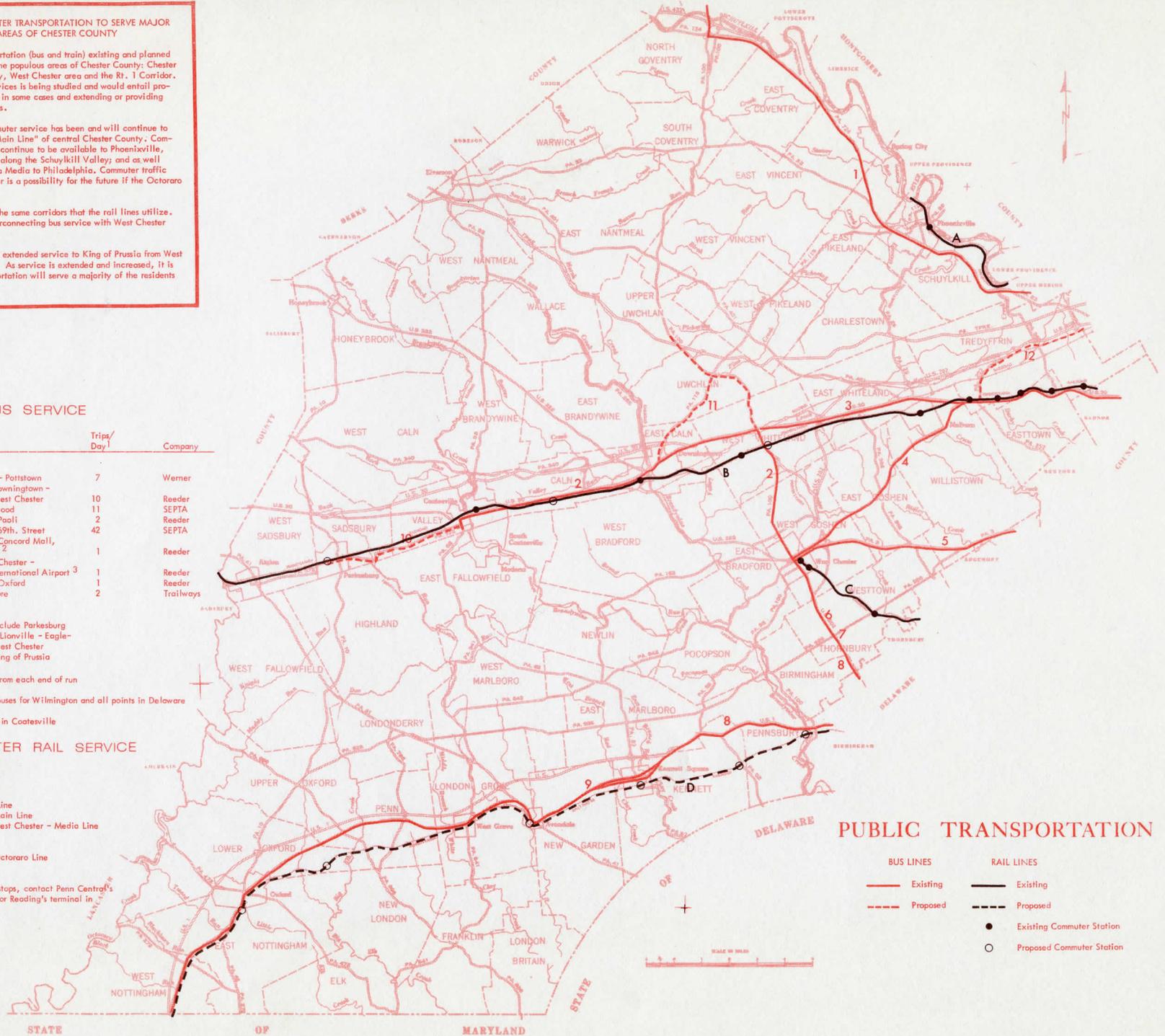
² Connects with DART buses for Wilmington and all points in Delaware

³ Return trip terminates in Coatesville

COMMUTER RAIL SERVICE

No.	Rail Line ¹
EXISTING	
A.	Reading Main Line
B.	Penn Central Main Line
C.	Penn Central West Chester - Media Line
PROPOSED	
D.	Penn Central Octoraro Line

¹ For schedule of train stops, contact Penn Central's Pott² or Media stations or Reading's terminal in Philadelphia



PUBLIC TRANSPORTATION

- | | |
|------------------|-----------------------------|
| BUS LINES | RAIL LINES |
| — Existing | — Existing |
| - - - Proposed | - - - Proposed |
| | ● Existing Commuter Station |
| | ○ Proposed Commuter Station |



such as sewers, highways, transit, parks, federally aided housing projects and many social programs. Under this system, the counties and other interested parties are notified of pending applications for federal aid, and they are given an opportunity to reply. The grant applications are reviewed by the various technical committees of Delaware Valley Regional Planning Commission with the Board making a determination as to whether or not the application is consistent with overall regional planning.

No applications from Chester County have yet been found inconsistent with regional planning. This favorable circumstance has come about from the desire of all concerned to keep the regional, county and municipal plans reasonably consistent so that conflicts do not develop.

Municipal Planning

Municipal Plans Reflect Both Local Values And Regional Pressures

The best overall summary and reflection of municipal land use policies is in the "Composite Land Use Plans" and the "Composite Zoning" maps that appear elsewhere in the book. Local plans are responsive to a variety of forces, and most are based upon considerable in-depth studies of local conditions and regional relationships.

Local plans and zoning ordinances are reviewed in detail by the staff of the Chester County Planning Commission and evaluated as to what extent they meet regional needs. The general conclusion is that local ordinances are responsive to regional needs.

A number of municipalities have accepted higher densities where the sewers are proposed. The higher density ranges permitted in existing municipal ordinances would reasonably accommodate the housing needs.

Need For More Resources In Municipal Planning

Funds for state and metropolitan planning have increased greatly in recent years; funds for county planning have increased only moderately;

but municipal planning funds have mostly declined in Chester County. The Federal two-thirds 701 grants to small municipalities ceased about 1970, and they have only been partially replaced by 50% state grants (SPAG funds).

In partial response to the need for planning, the Chester County Planning Commission is establishing a municipal planning assistance unit to work with municipalities and particularly with regions. The Chester County Planning Commission has suggested eleven planning regions shown on map entitled "Planning Regions".

Neighboring County Coordination

Coordination With Neighboring Counties Is Good

The Chester County Planning Commission and the planning commissions of neighboring counties have always worked closely together since their establishment in the early 1950's. Knowledge of both the plans and actual development in neighboring counties is important to Chester County, since major development in neighboring counties has its effect in Chester County. The King of Prussia complex is an obvious example.

It is believed that the respective county plans, especially in major facilities such as highways and transit, are well coordinated with few problems. A county by county summary follows with remaining problems indicated:

Berks County - The Berks County Plan (1974) generally proposes rural use and forestry, including farmland preservation, near the Chester County boundary. One emerging development trend is to make the Morgantown-Elverson interchange area a development node, despite the fact that it lies in some of the best farmland anywhere in the world.

Chester and Berks Counties have a difference of opinion concerning Route 10. Berks County has traditionally looked upon Route 10 as a continuation of the Interstate 176 expressway functioning as a direct connection to I-95 south from Berks County.

Chester County, while favoring some upgrading of Route 10, has not seen the traffic justification for any type of four lane facility. Berks County now has an alternative route to the south via the new Route 222 expressway to Lancaster, then via the new Route 30 expressway to York, and then via Interstate 83 to Baltimore and Washington. Also a substantial upgrading of Route 10 would conflict with the major development goal of agricultural preservation along Route 10.

Lancaster County - The Lancaster County Plan (1974) proposes rural and agricultural uses along the Lancaster-Chester County boundary with a small non-expanding node at Christiansburg. The major coordination problem with Lancaster County remains the Lancaster-Coatesville Route 30 expressway. Chester County interests have favored a location on, or at the base of, Gap Ridge so as to save valuable farmland in West Sadsbury township. Now that the Lancaster-Coatesville expressway is officially on the 12 Year Highway Improvement Program, it is expected that detailed design can go ahead. There also may be opportunities for improvement in rerouting TR 372 south of the boroughs of Porkesburg, Atglen and Christiansburg so as to remove through traffic from these boroughs.

Montgomery County - Montgomery County's plan (1973) looks to the eventual development of the Schuylkill Valley as the Schuylkill Expressway is extended to Pottstown and as the railroads along the Schuylkill are upgraded and electrified to at least Phoenixville and possibly to Pottstown. The chief coordination problems with Montgomery County are working out the details of the water and sewerage systems so as to minimize duplication of treatment facilities, and to provide for the effective reuse of Schuylkill waters and to use the Schuylkill River sewage assimilative capacity effectively.

There also may be future long range problems of highway coordination in the Valley Forge-Betzwood bridge area as traffic builds up. The present 202 expressway from Frazer east is double-loaded carrying both radial and

circumferential traffic and future overloads are likely. The Montgomery County Plan still calls for a "Piedmont Expressway" running parallel to and a few miles west of the proposed 202 expressway in Montgomery County that would run to the Phoenixville Spur. This "Piedmont Expressway" in Chester County would have to run generally along the Route 29 corridor from the Phoenixville Spur through Schuylkill, Charlestown and East Whiteland townships back to the present 202 near Frazer. Present land use and environmental considerations would make this extension of the "Piedmont Expressway" impossible now in Chester County.

Delaware County - Delaware County's forthcoming county plan proposes low density residential uses along the Chester-Delaware County boundary with the possible industrial and commercial uses along the present 202 arterial highway. Delaware County's land use plan calls for a major new industrial and commercial center in the Concordville-Pointers Crossroads that will have secondary implications for the West Chester area.

Two specific areas of coordination with Delaware County will continue in the years ahead: (1) The Delaware Valley Regional Planning Commission has now placed a new Route 202 expressway on the 12 Year Program from the West Chester By-Pass to Chester and to Interstate 95 near Wilmington. This expressway will require a lengthy process of planning and citizen participation as the details are progressively worked out.

(2) It is likely that sewer trunk lines will be extended from Delaware County into Chester County in the 1980's and 1990's. The Chester County Plan proposes certain areas in eastern Chester County now rural, as future development reserves anticipating this probability.

New Castle County - The New Castle County Comprehensive Plan (1967) calls for low density uses along the Chester County boundary. At one time there was an intention of extending trunk sewers along TR 41 toward Hockessin near the

Chester County boundary, but in recent years the timing on this has been pulled back. The Chester County Plan, however, does suggest a future development reserve area in New Garden township that could be sewerred in this way.

The Chief coordination problem with New Castle County has been concern over water rights, stream quality and the earlier proposed Newark Reservoir.

Chester County would also share with Delaware County and New Castle County responsibility for the detailed planning of the proposed TR 202 expressway. It is also possible that in the future TR 41 will be widened in both Chester County and New Castle County.

Cecil County - Cecil County's plan (1962 and being revised) proposes only rural uses along the Chester County boundary. However, several coordination problems have arisen in recent years. Chester County and Cecil County are working together to restore service on the Octorara Branch of the Penn Central. There is a long range need for further planning of the U.S. Route 1 expressway extension in Maryland and a better tie-in with Interstate 95, or for an improved crossing of the Susquehanna River. Also there have been discussions of sharing water rights on Elk Creek between Chester and Cecil Counties.

PREVIOUS PLANNING COMMITMENTS

Compatibility With Municipal And Other Previous Planning Commitments

Comprehensive planning has been underway in Chester County and in the Philadelphia metropolitan region since the early 1950's and many major commitments that greatly shape growth have already been made. These must be recognized now and accepted unless there is evidence that they are now contrary to what is considered best.

For example, there has been a major highway plan for Chester County since at least 1964 with many of the major growth producing expressways now built and much of the remaining have been firmly programmed. Major commitments have also been made in water supply with several reservoirs built based on the Brandywine Plan of 1958.

Since 1968 the County has had a major sewerage plan that has reasonably withstood the test of time with few amendments. Under the Plan this sewerage area would be one of the major determinants of the development areas.

County Plan Supports Local Plans

The County Plan thus far has been developed in accordance with the general land use pattern suggested in local municipal plans and zoning ordinances, in addition to natural physical constraints. Generally these local plans and ordinances reflect the basic corridor and node framework. In addition both local and County plans reflect major existing land use patterns as well as inevitable impact of growth pressures along major arteries and around existing service areas.

The County Plan reflects the Planning Commission's long range policy of supporting the municipal planning effort. This is consistent with the County goal of playing a leadership role in refining land use policies so that they reflect the larger scope of County and sub-County regional factors.

Composite Maps Of Local Plans And Zoning Provided Major Inputs For County Plan

Composite maps of local plans and zoning ordinances were prepared as part of the background research for the County Land Use Plan. These maps were developed to exhibit on an overall County basis the maximum densities and highest economic uses of the land within the various local districts and zones.

The County Plan Suggests Some Changes In Local Density In Order To Better Time Future Development

The basic difference between County and local land use policies is that the County Plan is not as specific or detailed as are local plans and zoning ordinances. This is a reflection of the realization that a County plan should be general, and thus more flexible, than municipal policies. Essentially, the County Plan attempts to support the desirability of preserving large rural and agricultural areas by placing municipal plans and zoning within the context of a County-wide development timing dimension.

While the County Plan is basically compatible with local plans and ordinances in terms of the general locations and development areas, the County's larger perspective does result in some differences related to relative density rather than actual use. For example, the County Plan recommends higher densities in areas within the existing and proposed sewer areas than are now proposed at the local level.

The development reserves provided for in the County Plan are another significant difference because they reflect an attempt to preserve more specific and desirable locations for anticipated future growth. These areas are generally adjacent to nodes and development areas and are locations which will be easily served by public sewers. On the other side of the coin, areas which are designated as farm, conservation and rural settlement districts on the County Plan are suggested for much lower densities than indicated in municipal plans.

Section III

THE PLAN

ALTERNATIVE STRATEGIES AND PATTERNS OF DEVELOPMENT

To What Extent Should Chester County Develop?

It is important in a County Plan overview to determine whether or not the County should promote growth and, if so, how should it grow? In so doing, it is useful to look at alternative strategies on the "growth vs. no-growth" issue and at alternative physical forms on the ground.

Growth Vs. No-Growth Strategies

In Chester County, as in nearly any other place, there is a division of opinion on the "growth vs. no-growth" issue as well as varied opinions on development strategies. The Plan attempts to reach a workable compromise between the varying interests in Chester County, and is sensitive to the desires of the present residents.

Growth-Development Interests

Those who generally favor growth include most of the real estate business, the retail trade interests (including Chambers of Commerce), local newspapers, large landowners, and the construction interests. This viewpoint is strongly backed by the State courts and legal systems. In more recent years this viewpoint has been joined by an unlikely alliance of interests, who are concerned about the need for more housing.

No-Growth Conservation Interests

In recent years the traditional growth ethic has been challenged by a citizen based movement greatly concerned about the quality of the environment and future resources who in general "want to keep the County as it is". This group contains many homeowners, women's groups,

intellectual organizations, some youth groups and some farm interests. The conservation ethic has been particularly well organized in Chester County by the various watershed associations and other conservation groups. The recent 1971 Environmental Rights amendment to the Pennsylvania State Constitution will probably in time define additional environmental protection against damaging land development.

While there is some difference of opinion as to strategy, this viewpoint generally takes the position to make development as difficult as possible. There is great fear that if sewers and other necessary public facilities are provided only more growth would be encouraged.

The Plan Seeks A Middle Course

The Land Use Plan attempts a middle course by recommending that development be concentrated within limited areas that are based upon good planning criteria including: location, nearness to jobs, availability of highways, public transit and ecologic suitability. It is suggested that existing centers of development having public utilities be the foci for additional development. Therefore, most of Chester County's land area would remain in a rural and forested condition.

The Plan Seeks To Provide For County's Share Of The Regional Housing Goals

The regional housing allocation plan of Delaware Valley Regional Planning Commission issued in 1973 calls for approximately 90,000 new housing units for Chester County by the year 2000. Some of these would be replacements for present substandard housing in the County. Since

the Housing Allocation Plan calls for a large number of units in the middle and moderate income categories, it is assumed that about one-half will be single family houses and half will be multi-family.

Alternative Development Patterns

Theoretically There Are Several Patterns Of Development Possible For Chester County

Some theoretical alternatives for Chester County are outlined in this chapter. It is necessary to look at alternative development patterns within the framework of those factors that are more or less fixed for Chester County:

1. The natural features restraints such as slope, flood plains, soil capability for both agriculture and urban development, elevation, etc., have been major influences in shaping Chester County's growth.
2. The basic highway and rail transit network for the County is already in place or is programmed until well beyond 1985.
3. The existing land use pattern markedly influences future land development.
4. Major commitments for water supply and major sewerage systems have been made and their effects considered.

Single Large Center Would Minimize Loss Of Farmland

It would be theoretically possible to locate most of the County's future development in a more or less self-contained single city with a central location such as the Exton-Lionville crossroads. Such a development would have some of the advantages of making pedestrian and bus transportation more efficient; minimize travel times and reduce highway maintenance costs; make sewerage and water services more efficient;

make some services such as police, solid waste collection and postal delivery more efficient. The greatest advantage of all would be a minimum amount of land consumption, and thus minimum loss of valuable farmlands. A single large center also provides for a wide variety of services that would minimize travel time.

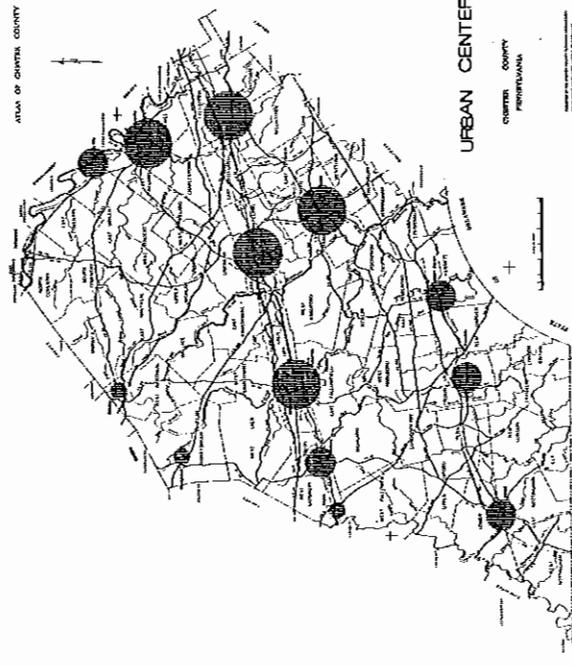
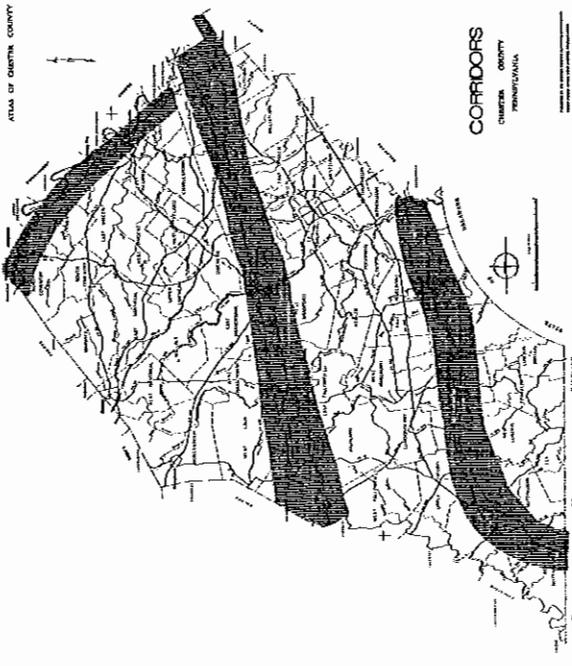
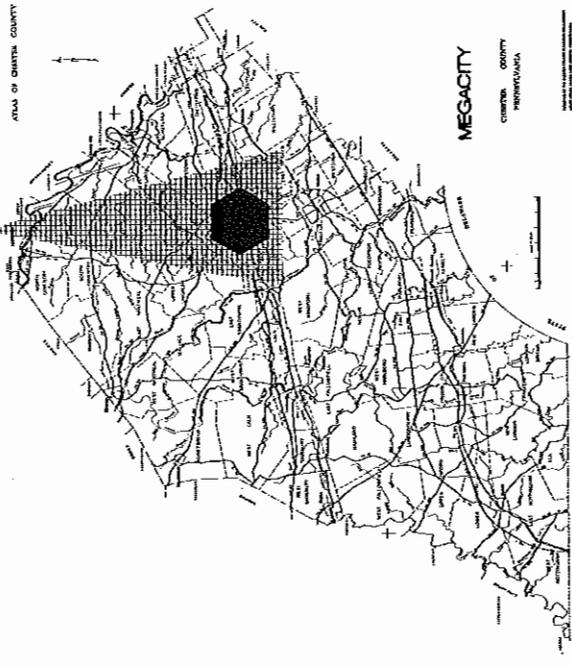
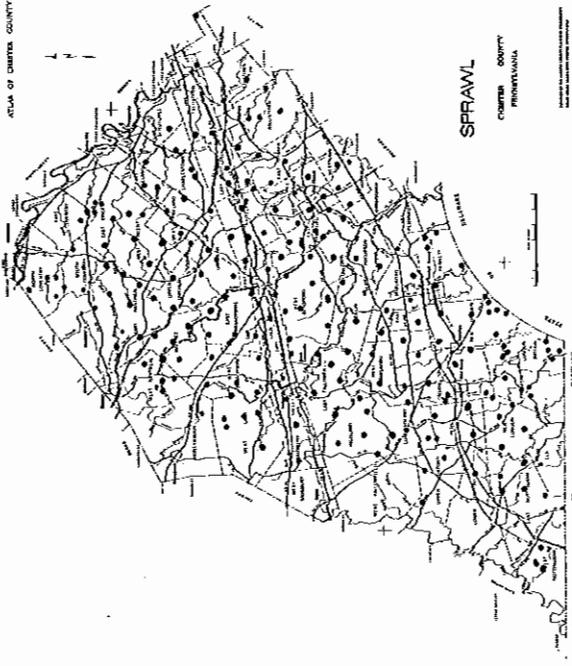
Disadvantages of such a pattern would be longer travel to and from other parts of the region. There would probably be a substantial number of apartments, including high-rise, which are more costly to build on a square foot basis. High-rise apartments create fire protection and water supply pressure problems. Unless there were substantial amounts of high-rise, immediate open space and contacts with nature would be limited. It would be doubtful that such a living pattern would be acceptable to residents of Chester County. While it is desirable to tighten up on the wastes of land of the existing pattern, a large single center is unlikely.

The Delaware Valley Regional Planning Commission in their 1969 Land Use Plan did recommend a variation of this idea of a single center, when the Commission proposed three large "multi-purpose centers" be considered at Exton, near West Chester and near Phoenixville. Serious consideration is warranted for higher density development, including some mid-rise apartments in central locations such as Exton, West Chester, Coatesville, Phoenixville and at some stations along the Main Line.

Dispersed Sprawl And Scatteration Patten

Since the end of World War II, and particularly in the last five years, a major pattern of development in Chester County has been the settlement of non-farming urban dwellers in large lots interspersed in a scattered way into rural farming areas. This settlement pattern is greatly desired by many people, who want the larger lots at lower land costs, a rural living environment and apparent freedom from worries about urban problems. The tolerably good soils of most of upland Chester County has seemingly made it possible to get along with septic tanks.

This pattern was based almost entirely



upon nearly unlimited use of the automobile by every family member for all their travel needs without consideration of gasoline supply, air pollution, road capacity and road maintenance costs. As long as the roads were not too congested, gasoline plentiful and automobile driving relatively inexpensive, the advantages of this way of life outweighed the drawbacks for many people.

As of now it seems likely that the national shortage of energy, both short and long term, and its soaring costs will cause a decline in this pattern of dispersed settlements. Costs associated with dispersed settlement build up slowly, but become very real. Public transit is impossible, even by the dial-a-bus or by the van concept. School busing costs are high as few can walk to school.

Roads designed only for rural use do not have the capacity, drainage or pavement base to handle much commuter traffic. Also, automobile air pollution could become a serious problem in areas of dispersed settlement.

Public sewers are prohibitively expensive for scattered development. A dispersed settlement pattern has caused a large rise in farm values far beyond that justified by farm return. Thus, increased land values, in turn, discourage the maintenance of farm operations in Chester County.

There is need for more specific planning for commercial development. There is some belief that there may be too much land in some places allocated for commercial use. The land market is increasingly recognizing the advantages of the planned shopping center. There is, in addition, a problem dealing with the land adjoining major and minor planned shopping centers.

The Corridor Development Pattern

Because of the major influence of transportation as a shaper of urban development, much of the past pattern of development in Chester County has been along transportation lines. This started with the original turnpikes, then the railroads and in recent years the expressways.

The transportation corridor pattern has been reinforced by physiography, particularly with Chester Valley and to a lesser extent in the Schuylkill Valley. When a river valley serves as a corridor, the aesthetics of the river and the need to use the water naturally attracts development.

On a metropolitan regional scale, the corridor pattern permits major radial highways to be used most efficiently, and thus it is not surprising that most metropolitan plans usually recommend some sort of corridor pattern more frequently than any other pattern. At a regional scale, corridor development theoretically makes nearby rural land more accessible for development.

Population and development could be distributed rather uniformly along these corridors. However, this would not produce the concentrations and centers needed for efficient provision of commercial, professional and other services.

Disadvantages Of Corridors Can Be Limited

There are some disadvantages and limitations to the urban corridor pattern that need to be kept in mind and steps taken to minimize them. To some there is a similarity between strip commercial development along a single highway and the corridor concept. A traveller along even a corridor expressway would see very little open land; only a continuous sprawl. There also could be a tendency to have a rather uniform density and land use mixes without clear-cut, well-structured centers.

Centers As A Pattern Of Development

In order to minimize the disadvantages of undifferentiated urbanization, a definite pattern of centers is needed. These centers are sometimes called nodes, cores, hubs, centroids, nodal points or central places in more academic writings. For present purposes, the more general term "center" is used to cover both the areas for shopping, office uses, professional services and some higher density residential living.

Types of Central Places

As areas develop and urbanize some central places become more important than others. The rate at which centers grow is determined by many factors: accessibility, population growth, employment opportunities, and variety of housing. Generally, however, the importance of a center may be measured by the population in its service area, where both working and residential populations are considered.

In addition to a hierarchical arrangement based on size, centers also differ on the basis of the general types of goods and services which they provide. This in turn affects their locations within basic land use patterns. Chester County, for example, is located within the Philadelphia metropolitan area, with some portions of the County falling within the influence or service areas of Reading and Wilmington. The metropolitan centers are different from other centers because they provide goods and services which are larger scale, very specialized and generally require large service areas (i.e., larger wholesale, industrial and employment centers).

The next level of central places which affects Chester County are the regional shopping centers. These centers are generally designed to serve market areas of 100,000 people with specialized retail goods. Generally, while these major regional shopping centers do depend on access, they are usually not associated with part of the center of an urban community or established neighborhood. Like metropolitan central business districts (CBD's), these centers are built around the provision of goods (i.e., clothing, appliances, furniture) for which demand is much less frequent than for other commercial goods, and for which variety is very important. Thus, these centers must serve large populations.

The major impact of these large regional and metropolitan centers in terms of County land use patterns are reflected in improvements to the transportation networks, particularly highways. Examples of major re-

gional shopping centers affecting Chester County would include Exton Mall, King of Prussia Mall and Concord Mall.

Sub-county regional shopping centers are similar in character to the regional centers but have smaller service areas (i.e., 50,000 and under). Often these centers take the form of strip commercial development. They are necessarily located on the basis of access and centrality to their service areas and are not usually a part of a structured community or neighborhood. Examples of sub-county regional centers in Chester County include the West Goshen shopping center and the commercial center in Coln Township along Route 30.

In addition to the large metropolitan shopping centers, there are other central places which are an integrated and important part of the urban areas which they serve. The central business districts of West Chester, Coatesville and Phoenixville are examples of this type of central place. These centers are less dependent on extended transportation networks to reach their markets, because they are located within relatively dense population concentrations surrounded by a less densely populated hinterland. While many of the goods and services provided by central business districts within population nodes are the same as those of large centers, the emphasis is clearly on convenience shopping and personal services.

For planning purposes, community centered business districts in Chester County may be placed into three categories on the basis of the size of the urban place. Each of these groups displays certain important distinguishing features. The first category includes central places which are located within urban concentrations of populations in excess of 10,000 persons. These areas tend not only to be the centers of urban places but also of sub-county regions which form these service areas or hinterlands. These areas typically provide the banking and professional services for surrounding less densely populated areas which may include one or more central places of lesser size. Examples would be West

Chester, Coatesville and Phoenixville.

The second category represents the central places which are located within urban areas of populations from 2,000 to 9,000 persons. Examples of centers of this type in Chester County would be Downingtown, Oxford, Malvern and Kennett Square. If these areas are located within relatively populated residential regions which are not served by a larger center then they may act as regional centers. Kennett Square and Oxford are good examples of this.

The third category includes minor central places located within communities of 500 to 2,000 persons. These centers draw people from relatively short distances and only provide a few convenience goods and services. They are primarily important in that they serve rural and less developing regions. When an area is agriculturally oriented with scattered populations, nodes of this size may act as regional service areas. In Chester County, Honeybrook and Elverson are examples of this situation.

Why Are Urban Centers An Important Part Of The Land Use Plan?

Generally, it is the service areas or thresholds of the community oriented central places which define the hinterlands of these regions. The County comprehensive planning process attempts to spatially identify areas where development of high density should occur and those areas which are suited for lower densities or should be preserved for natural, environmental or agricultural reasons. In a general way three major land use objectives are proposed: development areas, future development reserves, and farm and open space preservation areas. Land use development areas should be based upon a timing dimension which reflects the capital program for public utilities and services.

In addition, one of the primary objectives of the land use planning process is the protection of existing land uses. Urban centers are an important existing land use pattern because they represent a significant investment in economic and social infrastructure which has

been developed over a long period of time.

As was discussed earlier, urban centers have the services and utilities to support higher density development while at the same time minimizing land consumption, service costs and travel time. Urban centers can provide for a more varied choice of housing and living styles which can not be provided as efficiently by other types of spatial arrangements. Finally, by encouraging a significant portion of new growth in and around urban centers, the wasteful effects of suburban sprawl may be eliminated.

How Do Central Places Fit Into The County Planning Framework?

By encouraging development to occur in and around central places where people can best be provided with necessary services, development pressures may be lessened considerably in areas that should be preserved or that should be developed at lower densities. The other alternatives to land development (single center, sprawl, corridor) appear to be less desirable.

Can these costs be reconciled with the strong desires of many people for the rural way of life? Possibly, if the PRD pattern is accepted widely, the economics of costs will be lowered and yet the residents can have the rural atmosphere. However, even PRD's should not be scattered at random; they should be limited to those parts of the rural areas nearest transportation, commercial centers and utilities.

TRANSPORTATION PLAN

An Extensive Transportation Process Has Long Been Underway

The land use planning for Chester County in 1975, of course, must recognize the commitments that have been made in earlier planning. Chester County has had a major county plan for highways since at least 1964 with considerable work prior to that during the 1950's.

Since 1965 the Pennsylvania Department of Transportation (Pennsylvania Department of Highways before 1970) has had a Six Year Program, now extended to twelve years, with considerable refinement in programming over the years. During this twelve year transportation planning process most of the major corridor expressways in Chester County have been committed in final engineering detail, and for the most part have been built.

Plan Objectives For Transportation

Some of the major objectives of the Transportation Plan for Chester County, both for highways and for public transit and other car alternatives would include:

1. Fitting In With The Regional And State Wide Networks- The major highways in Chester County serve not only Chester County but also state and regional movements. This is particularly so with the major freeways, such as the Route 30 and Schuylkill Expressways, Route 1 and Route 202. All are major arterials serving major intra-state and interstate movements. The map entitled "Traffic Volume" graphically shows these concentrations.

2. Shaping A Desired Pattern Of Regional Development - The highway network does seem to implement a satisfactory corridor and center pattern of development as described elsewhere. Perhaps from some viewpoints, the committed highway network might encourage a more "spread out" land use pattern than some might desire, but other needs must be considered.
3. Eliminate Areas Of Traffic Congestion- For the most part Chester County does not have real peak hour traffic congestion that is the daily burden of most urban areas in the United States. The most serious places are: Route 30 in West Whiteland Township, which someday will be relieved by the Exton Bypass; the Lionville area of Uwchlan which will be relieved by the Route 100 widening; and some places along Route 30 in the Upper Main Line area. It is likely that real traffic congestion will become an increasing problem in the Upper Main Line and other congested areas.
4. Minimize Adverse Environmental Impact- A highway goal, that since 1970 has received special attention is the requirement for an Environmental Impact Statement, and greater attention to environmental detail. On the whole, it is believed that the Chester County Highway Plan fairly well meets environmental criteria. There is a concern for a routing of the proposed Coatesville-Lancaster Expressway to keep it away from farmland; and citizen concern about the Route 29 widening in Charlestown. But on the whole it is believed that the Highway Plan does not do ecological violence.

5. Make The Existing Highway Network More Efficient And Sofer - Because of the inability to finance and build many new highways much greater attention is being given to making the existing highway system safer and more efficient. Chester County is now eligible for participation in the TOPICS program (Traffic Operations Programs To Improve Capacity and Efficiency). This is a program that provides at least 70% Federal aid, usually 15% state aid, for measures such as traffic signal synchronization and channelization that greatly increase capacity at modest costs.
6. Encourage Public Transit And Other Car Alternatives- The County Plan encourages a more compact development pattern along the transportation corridors so as to make existing and easily extended rail and bus transit more feasible.

Future Expressway Proposals

Projects on program but unbuilt as of 1975:

1. Exton Bypass- This five mile connector between Route 202 and the Route 30 Coatesville-Downingtown Bypass Expressway is the most urgently needed highway project in Chester County to relieve serious congestion and to serve new development. Yet it faces several years more of environmental studies plus final design studies, before actual construction can start, hopefully before 1980.
2. Schuylkill Expressway Extension To Pottstown With Phoenixville Spur- This project has at last cleared most environmental and design hazards with the first stages now under construction. When the system is open in 1977 or 1978 this project will bring great development pressure to the Schuylkill Valley section of Chester County.
3. Coatesville-Lancaster Route 30 Expressway- This 17 mile missing segment on the Route 30 system was only recently (1972) added to the Twelve Year Program,

and now will permit more detailed planning to begin. This highway will open up opportunities to western Chester County by increasing access to the Lancaster region; but may increase traffic on Route 30, since it will be a toll free system parallel to the Pennsylvania Turnpike.

4. Route 113 Spur to Phoenixville Bypass- This short connector will route traffic from Route 113, and perhaps Route 29, directly to the Phoenixville Spur, thus meeting the county development objective of keeping through traffic out of the older urban centers like downtown Phoenixville.
5. Route 202 Expressway From West Chester South To Chester and Wilmington- The major missing link in the Chester County Expressway system is just now being added to the 12 year program after many years of effort by both Chester and Delaware County interests. The existing Route 202 arterial south of West Chester is now carrying over 30,000 vehicles per day and will begin to suffer congestion, as well as accident hazards, during the long period of planning and construction that will be required for a new parallel expressway.

Arterials Will Become More Important After Expressway Is Completed

The requests for arterial improvements are far more than foreseeable funding, so there have to be careful priorities. In September, 1974, the Chester County Planning Commission reviewed its priorities, and was able to make recommendations for some additional arterials. Thus the major arterials now on the program are as follows:

1. Route 724 Widening To Four Lanes From Phoenixville to Pottstown Bypass- This upgrading to four lanes should begin in the near future as soon as some legal problems can be worked out. This highway is carrying a traffic load at full capacity and is a road with a serious accident record.

2. Remaining Upgrading of Route 100- The still unbuilt originally programmed widening of Route 100 to the Pennsylvania Turnpike, including at least partial grade separation with route 113, should go ahead as soon as the remaining design and legal problems are worked out.

In September 1974, the County Planning Commission recommended that some further staged upgrading be done on Route 100 including widening to four lanes beyond Eagle, and in from Route 23 to the present limited access portion near Potstown. (It is the eventual goal to make Route 100 four lanes for its entire length in Chester County, with some limited relocation to minimize grade).

3. Upgrading of Route 352 and Boot Road- The great growth taking place in East Goshen Township, and the function of these roads as feeders to the 202 Expressway Interchange and as a subarterial to Delaware County gives this project high priority.

4. Upgrading of Route 401 From TR 113 to TR 30- This route crosses another rapidly urbanizing area and is carrying traffic approaching capacity.

5. TR 29 Upgrading - There has long been a strong demand from the communities involved for an upgrading of TR 20. However, after the design was completed and much of the actual right-of-way acquired, there was a last minute change of view by some citizens. There is now an environmental impact study under way and an uncertain outlook for this project.

6. Route 82 Upgrading North And South Of Coatesville- Route 82 both north and south of Coatesville might better be relocated to South First Avenue so as to serve Lukens Steel needs and to avoid the "dog leg" turn and double loading on Lincoln Highway in downtown Coatesville.

7. North Caln Road - North Caln Road has been programmed for many years and

should go to construction as soon as the next legislative capital program is passed. This road is a feeder to the eastern Coatesville interchange of the Route 30 Expressway and serves another rapidly growing area.

8. Extension Of The West Chester Bypass As An Arterial To TR 52 - West Chester regional interests have long wanted to get through traffic from Route 52 out of the borough and to provide relief to the South Campus of the State College.

9. Route 10 Upgrading - In the past there has been strong requests to substantially upgrade Route 10, possibly to even an expressway continuation of Interstate 176. It was claimed that the present low traffic volume (less than 3000 vehicles per day) resulted from the poor condition of the road, and traffic now diverted to Lancaster County would instead use Route 10 if the road were better.

A feasibility study was made of Route 10 by PennDOT in 1971, including an Origin and Destination Survey. This study did not find any near future traffic projection of over 10,000 vehicles per day. Major upgrading would conflict with the agricultural goals in the area.

However, TR 10 does need upgrading and perhaps some limited relocation, especially in the Compass-State Hill vicinity. The County Planning Commission in 1974 recommended that a staged upgrading of Route 10 begin.

10. Route 322 Relocation In Downingtown - In September 1974, the Chester County Planning Commission approved a feasibility study of relocating Route 322 in Central Downingtown, so as to minimize through traffic in that borough. There may be a possibility of another crossing of the Brandywine that would permit this relief.

Public Transportation Plan

There Is Now Growing Need, And Possibility Of Public Transit

Like most suburban areas, the Chester County economy and life is based almost entirely (except in some of the older boroughs) upon much universal use of the automobile for nearly every trip; even short trips to buy groceries. The County's once excellent bus service connecting most urban centers deteriorated and went out of business by 1970 because of declining ridership and soaring costs.

Yet even before the nation's fuel conservation needs became apparent, there was growing recognition of the imperative need for public transportation. A significant percentage of the population is either too old, too young or physically unable to drive an automobile. National energy needs now make reconsideration of more public transit and other alternatives to the car indispensable.

The Chester County Commissioners cooperated with neighboring counties in 1961, when they agreed to participate in a regional effort to save rail transit that eventually became the Southeastern Pennsylvania Transportation Authority (SEPTA). Since then, rail service has been saved and some improvements made include new cars and the start of station parking improvements.

There are some real possibilities for future public transportation for Chester County. The land use recommendations elsewhere in this plan are designed to make it possible by recommending that much future settlement and employment be on or near actual or potential public transit routes in the three corridors.

Federal and State funds are now starting to flow in a much more balanced way for public transportation; at first only for capital expenditures, but starting in 1974 for the even more desperately needed operating funds. There is now an excellent prospect that Chester County can now begin to do more serious planning for public transportation. Maps of existing transportation are available and some of the major

proposals are shown on the map entitled "Public Transportation".

The Rail Transit Network Is Basically In Place, And Should Be Upgraded

Chester County has a railroad actually or potentially in place for each of the three major development corridors. The County and the regional plans call for their development as follows:

1. Chester Valley Route 30 "Main Line"- This has always been the main freight and passenger route from Philadelphia to the west since the early days of the colony, and is the backbone of the public transit service in Chester County.

The Plan proposes that service gradually be expanded from Paoli to at least Exton, and the turnaround be placed at Thorndale. The Exton station is now under design and should go under construction soon. Other potential new station possibilities exist at Frazer (PA Route 352), and at Thorndale. Some limited additional parking may still be possible at Paoli and some other existing stations along the Upper Main Line.

2. Schuylkill Valley Railroads- Limited passenger service is provided to Phoenixville, Pottstown and Reading, that serves the Schuylkill Valley portion of Chester County. Eventual electrification to Phoenixville is a future possibility. Some upgrading and parking expansion at Phoenixville and other stations is likely.
3. West Chester Branch- The need on the West Chester Branch is to provide direct through service to Philadelphia without change of Media, some upgrading of track, and parking and station improvements.
4. Octorara Branch - The Chester County Commissioners, Planning Commission, Development Council, former State Representative Benjamin J. Reynolds,

and many civic and business groups have all called for freight and eventually some passenger service on the Octorora Branch.

The Delaware Valley Regional Planning Commission, and SEPTA has agreed in principle to provide passenger service when funds start to become available. The first step is to save the line physically and restore freight service via means of a lease operator.

Bus Transportation Can Connect Most Urban Centers

Until 1970 Chester County had an excellent bus transportation system based upon the terminal at West Chester and reaching most of the County centers. The terminal at West Chester made it possible for the elderly and others who can't drive, to reach the health, governmental, legal and other social services that are concentrated in the county seat at West Chester.

Discussion with SEPTA, indicates that there is the technical feasibility of restoring much of this service in an improved manner, if and when the operating subsidies, or other revenues become available.

1. West Chester To Philadelphia - (SEPTA Route W) - This is the major public transit lifeline to Philadelphia with service every 20 minutes during most of the day. The need here has long been at least a single fare to central Philadelphia, to permit interchange with the subway elevated.
2. Coatesville - Downingtown - Exton - West Chester - This has been the second most heavily used bus line in Chester County, and service is being provided on a limited basis by the Reeder Bus Company. Expansion and upgrading of this line including a spur to Eagle is easily possible. Also possible is a westward extension to Parkersburg and or Atglen.
3. West Chester To Wilmington - This is the third line, important in the past, where service is not currently being performed in a useful way. This situation partially exists because of legal jurisdiction prob-

lems of going outside the state (between SEPTA and Delaware DART systems).

4. Pottstown - Phoenixville - King of Prussia - This service by the Werner Bus Company provides six trips per day to some of the major employment centers in the Schuylkill Valley. If as proposed below a new West Chester to King of Prussia service were established, then a means could be available, even if a little circular for Chester County residents in the Schuylkill Valley to reach services at the county seat in West Chester.
5. Oxford to Chadds Ford (And Then to Wilmington, West Chester and Media) - Residents of southern Chester County need public transit to reach employment centers, particularly in the Wilmington area. It may be possible to establish a bus route from Oxford to the rail terminal at Media or Elwyn to provide public transit access to Philadelphia. This line would also connect with the West Chester to Wilmington route at Chadds Ford to provide a connection to Delaware DART system, and thus reach major centers in Delaware.
6. West Chester - Paoli - King of Prussia - There would appear to be a basis for a new route from West Chester to Paoli (connections to train service and SEPTA Routes X and Y) and then to the major employment and shopping centers at King of Prussia. At King of Prussia, inter-connection would be made with the service now operated by the Werner line to Pottstown, to Norristown and other place in Montgomery County.

Car Pools And Community Employer Bus-Van Pools Only Alternatives To The Remainder Of Chester County

The public rail-bus transportation system previously described would be the maximum system that would be feasible into the foreseeable future. This would mean that many residents in the recommended development areas would be within walking distance of an integrated interconnecting public transportation system.

THE LAND USE PLAN

Objectives Of The Land Use Plan

Purpose Of The County Land Use Plan Is To Start Discussion Of Major Development Issues

The purpose of the Land Use Plan is to provide a beginning for discussion of the major land use issues by the County Planning Commission, local officials and the general public. Alternatives were considered in the preceding chapter, and it seems reasonable and rational to provide for most growth in and around existing centers.

The suggested plan design hopes to curtail the recent wasteful trends in land use and all the ensuing wastes of public and private resources that stem from it. These include the wastes of energy, the costs of pollution, the loss of valuable farmlands and the high service costs of urban sprawl.

A recent study by several Federal agencies entitled The Costs of Sprawl discusses these costs that are borne by local governments through direct property taxes but also any other costs borne by individuals and by society as a whole. A higher density and more compact pattern lowered most of these costs and provided a more optimum trade-off of the many economic, environmental and social costs.

The Plan suggests, in general terms, the best areas of development and approximately when development should take place. All details of development would be done in municipal and County sub-regional planning.

Land Consumption Figures Are Related To Population And Housing Needs

The land consumption figures outlined in chapter entitled "Holding Capacities And Comparative Densities" incorporate the Delaware Valley Regional Planning Commission's figures as modified by the Chester County Planning Commission. This land consumption amounts to approximately 22,500 acres, or about 13% of the total land area of the County by 1980. Therefore, the total land in residential use need take only a relatively small percentage of the County area.

Curtailling The Wastes Of Urban Sprawl

Within the general objective of providing for effective land use development, the following suggestions are made:

1. Preserve As Much Farmland As Possible-
By concentrating growth in planned areas of relatively higher density, less space would be occupied and developmental pressures automatically removed from some of the farmlands that should remain open.
2. Keep Development Away From Critical Ecological Areas And Concentrate It In Environmentally Suitable Areas - From an overall viewpoint, it is apparent from the slope, floodplain and other maps of natural features, that some areas of the County are less suited for development than others. The Plan suggests concentration within the more

suitable areas. More so than in neighboring areas, development in Chester County is shaped by slope and other natural features. Approximately 50% of the area of the County has environmental limitations.

3. Put New Development Closer To Employment So As To Reduce Travel Needs And Thus Also Reduce Energy Consumption, Air Pollution And Traffic Congestion - One of the chief ways to reduce gasoline consumption is to get jobs and housing closer together so as to reduce commuting distance. Much of the employment, both existing and proposed, is heavily concentrated in central Chester County, and to a lesser extent along the Schuylkill Valley and Route 1 corridors.
4. Create Centers Of Sufficient Density To Make Public Transit Feasible - The energy crisis makes it apparent that more reliance must be placed upon public transit. To a certain extent, it will be necessary to return to the public transit and land use pattern of past years; and business, homes and schools must be more rationally related to these facilities. The proposed Plan does try to relate proposed major residential development areas to public transit possibilities.
5. Help Meet Public Service Needs By Providing A Tax Base - Another reason for more directly relating housing and employment is to equalize housing opportunities in relation to ability to pay. Presumably a municipality and school district with extensive industry is somewhat better able to support housing. However, larger school districts and more state aid are making this fiscal zoning less vital than in the past.
6. Relocate Development Areas To Water And Sewerage Extensions - The proposed development reserves are either within the areas proposed for water and sewerage in the 1985 Sewerage

Plan or are reasonable extensions and modifications of the basic plan.

7. Minimize Deviations From Present Plans - Many key elements of a County Plan have already been developed -- the highway and transit plan, water and sewerage plan, and most of all, the present land use structure. In addition there are basic local plans and zoning ordinances in nearly all 73 municipalities. The biggest needs are a better effort toward timing of development.

The Plan suggests greater concentration in the principal developmental areas. Details including density and housing mix would be worked out of the County sub-regional level.

Within the general objectives indicated above, and the criteria and determinants outlined in previous chapters the major land use types can be discussed. Each type of land use is specifically analyzed in terms of the basic locational, ecological - environmental and social factors. The general amount and availability of land, as far as it now can be ascertained, is also indicated.

Industrial Land

The most specialized land use requirements are the industrial lands since most industrial lands have a high priority claim on transportation facilities and utilities. In general, industry needs the more level lands, certainly under 8% slope and preferably under 5%. Generally, industrial land in Chester County needs both water and public sewers.

Most Industrial Land Is Well Located Either In Urban Centers Or Along The Transportation Corridors

The existing 4,800 acres (approximately) of industrially used land in 1972, as indicated on the "Existing Land Use" map, are located for the most part in the urban places or in

industrial parks. Most industrial land has been located where the basic services and the labor supply were available.

A major trend in suburban industrial development after World War II has been the suburban industrial park. Industrial parks permit land to be used more efficiently. Utilities and other services can be provided more effectively. In Chester County there are more than twenty recognized industrial parks; they are indicated on the map entitled "Industrial Parks". In all cases the Chester County industrial parks are located near major highways, usually along railroads, and in areas where basic utility services are or will soon be provided.

The Amount Of Planned Industrial Land Appears To Be Reasonably Appropriate

There are approximately 25,000 acres of industrially zoned land in Chester County, of which about 4,800 acres are now used for industry. This leaves about 20,000 acres for development. Of this amount about 17,400 are within the 1985 Sewerage Plan.

Whether this is too much or too little industrial land is in question. The industrial development agencies serving the County believe that there is perhaps some excess of industrial land, but it is believed that some excess is needed to provide sufficient competition to keep land prices realistic. Whether or not there will be excess industrial land depends upon what type of industry is attracted, and whether or not it is located in space-saving industrial parks or spread out on separate large tracts.

Industrial development in Chester County has been somewhat slower during the 1960's than earlier expected. This was due partially to lack of sewers, and particularly due to the available space of the large King of Prussia and Valley Forge industrial parks. By 1974 these industrial parks were nearly built, and it now appears that sewers will be available in the Upper Main Line area. Therefore, it is reasonable to expect more industrial development in

Chester County during the late 1970's and beyond. However, future development for the County may be tempered by the prospects of some slow-down in the rate of industrial expansion for the Philadelphia region as a whole.

Office Park Development Is A New Trend

A new trend for the suburbs, in general, and for eastern Chester County, in particular, is the office park. The economic reasons for concentration of services in office parks is similar to those for industrial parks. Indeed it is sometimes true that the office park is part of the industrial park.

However, the office park is even more sensitive than the industrial park to transportation and the availability of a suitable office distances. Female workers, on the average, are probably less inclined to commute long distances than are factory employees. Thus office parks will probably be concentrated in eastern Chester County.

From a community planning viewpoint the numbers of workers per square foot of floor space is generally greater in office parks than in typical industrial or warehouse parks. This tends to concentrate peak hour traffic flow and accentuates the need for public transit.

Chester County's experience with the office park is still limited. The major concentration is in the Valley Forge area along Route 202 and highly accessible to transportation and supporting facilities in the nearby King of Prussia complex. There is also a smaller center adjacent to Paoli station. Currently there is a proposal under consideration by East Whiteland Township for a major office park adjacent to the Morehall Road Interchange of Route 202. There may be possibilities in the Exton and Lionville area in the near future.

More Attention Is Needed For Quarry Land Preservation

One of the essential needs of any society is earth products in terms of crushed stone for road building, for concrete blocks, for dimension building stone and other construction purposes.

Other more specialized earth products are used for such purposes as refractory linings and cement making.

The most important mineral resource in Chester County is the limestone in the Chester Valley. These limestone formations have been identified by the Pennsylvania Geological Survey as having sufficient economic worth. Therefore, quarrying activity is recommended as an industrial use in these areas.

Commercial Areas

Location Of Commercial Areas Is An Important Part Of The Land Use Planning Process

One of the most important aspects of the land use plan is the location of commercial use areas. Commercial uses provide goods and services necessary to surrounding residential areas, contribute to the community's tax base, generate a significant number of trips and provide employment. Commercial locations are important considerations for other elements of the Plan, particularly utilities, circulation and public facilities.

Factors Affecting Early Commercial Development Provide Insights For Current Planning

In the past major commercial areas within the County were located in the population centers. Examples of these commercial areas could be found in Coatesville, Downingtown, West Chester, Kennett Square, Oxford, Phoenixville, Molvern and Paoli. Smaller central commercial locations were located in Elverson, Honeybrook, Parkersburg, Atglen, Spring City, West Grove and Avondale.

Until recently most of Chester County's commercial activity could be described as being part of central business districts. However, as urbanization pressures and mobility began to be more of a factor, regional and sub-regional shopping centers were constructed.

New Commercial Development Reflects Accessibility And Population Density

New shopping centers differ from the es-

tablished CBD commercial areas because they are more dependent on highway access and are not centers of established communities with associated professional, business and residential districts. Generally, shopping centers specialize in a wider variety of goods and services which are needed less frequently than the goods and services offered in the CBD's.

There has also been a marked increase in the quantity and size of strip commercial developments. Again, this trend reflects several important factors: rapid growth and urbanization, the built-up and congested nature of existing CBD's, and the availability of large amounts of relatively cheaper vacant land along the major traffic corridors.

Amount Of Land Zoned For Commercial Uses Exceeds Current Demand

Urbanization is not only affecting the character and location of commercial land uses throughout the County, but it is also affecting the demand for commercial goods and services. The amount of land which is now zoned for commercial uses exceeds current demand. This is a reflection of the practice in a municipality of zoning large strips along major roads for commercial uses in the hopes of supplementing the community's tax base. As is the case with industrially zoned land, this has the effect of keeping the price of commercial land lower.

Generally Commercial Areas Are Currently In The Right Place

Areas planned and zoned for commercial uses in Chester County areas are generally in the right places. Most of it is located in established urban centers or along major transportation corridors. These areas are either currently served by public water and sewer facilities or are planned for such service.

The commercial areas shown on the County Land Use Plan are based on three primary sources: existing commercial areas, areas which are currently planned, or areas which are zoned for commercial activities by the municipalities. Thus, the Plan reflects the thinking of the local municipalities.

NAME	ACRES
1. Honeybrook Industrial Park	81
2. East Vincent Industrial Park	100
3. Cromby Industrial Park	129
4. Schuylkill Valley Industrial Park	16
5. Phoenixville Industrial Park	68
6. Glenside Corporate Park	30
7. Valley Forge Executive Mall	17
8. West Industrial and Office Center	51
9. West Industrial Park	288
10. Peoli Industrial Park	25
11. Malvern Industrial Park	205
12. Great Valley Industrial Park	48
13. Devoall Industrial Park	220
14. Mehl Line Industrial Park	50
15. Beaton Hill Industrial Park	72
16. Plainsboro Industrial Park	177
17. Chester County Industrial Park	288
18. Extonville Industrial Park	98
19. Downingtown Industrial Park	270
20. Pottsville Industrial Park	100
21. Downingtown Industrial Park	123
22. Cain Industrial Park	429
23. West Spokbury Industrial Park	221
24. Oxford Industrial Park	

INDUSTRIAL PARK

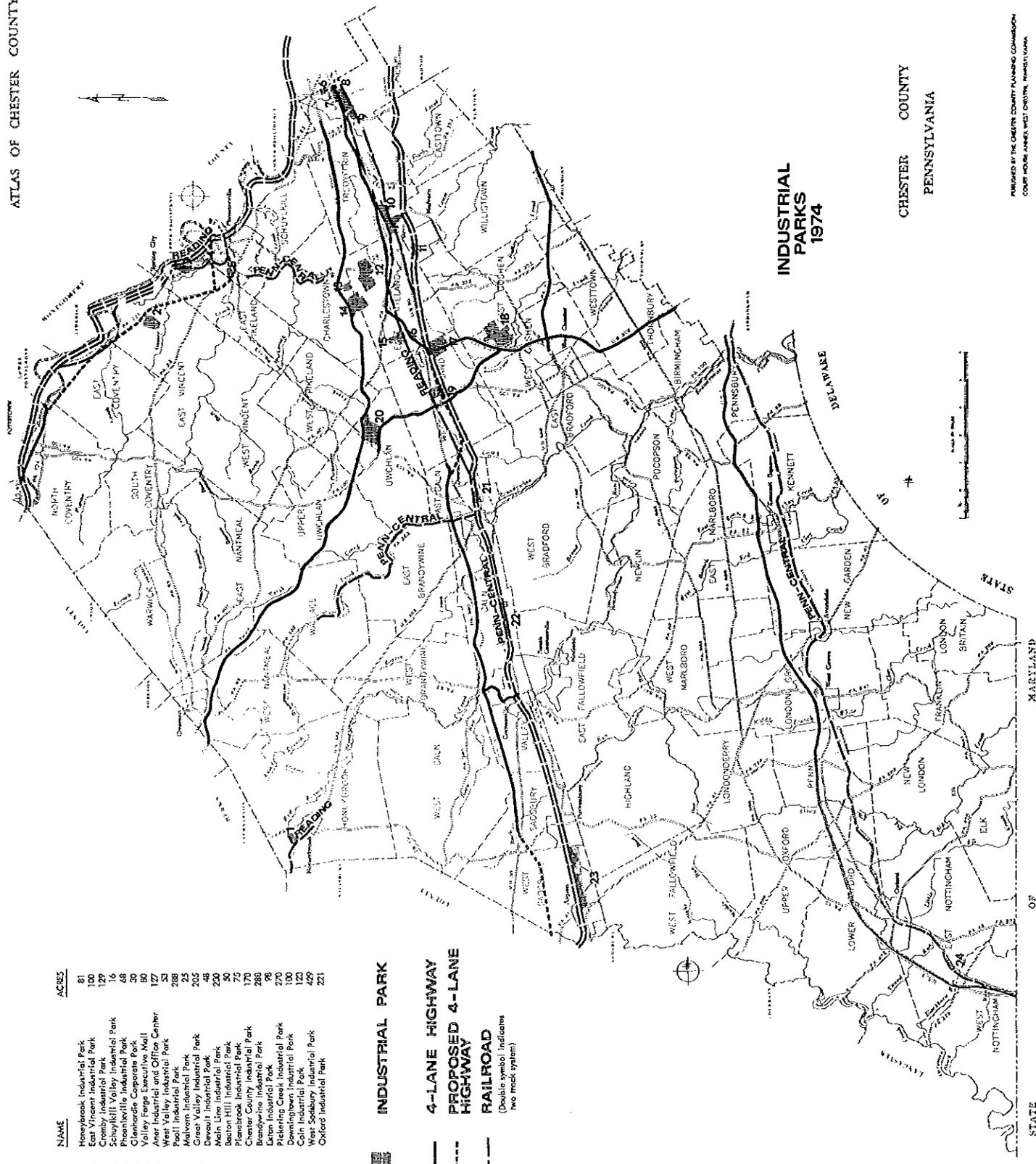
4-LANE HIGHWAY
PROPOSED 4-LANE HIGHWAY

RAILROAD
 (Double symbols indicate two track system)

INDUSTRIAL PARKS 1974

CHESTER COUNTY
 PENNSYLVANIA

PREPARED BY THE CHESTER COUNTY PLANNING COMMISSION
 COURT HOUSE ANNEX, WEST CHESTER, PENNSYLVANIA



The County's commercial plan emphasizes CBD's which are essential to the sub-County regional planning concept. In addition, the market or service areas of the various central places generally reflect the planning regions which have been proposed by the Planning Commission. Hopefully, CBD centers will be maintained and rehabilitated in the near future.

Commercial Centers Are Shown Symbolically On The County Land Use Plan Map

The County's proposed land use map shows three categories of commercial centers. The largest red circles represent large scale, regional shopping centers. The centers affect land economics, land use and circulation patterns, but are not the economic centers of communities. There are two such regional shopping facilities shown on the Plan: Exton Mall in West Whiteland and King of Prussia Mall in Upper Merion, Montgomery County.

The middle-sized red circles represent sub-regional shopping centers. These centers are generally those with market areas of more than 50,000 but less than 100,000 population. The effect of these centers on local land economics and circulation patterns is great. Generally, these areas are of a strip commercial design and are aesthetically unpleasant. An example of this type of center is the Thorndale complex in Coln Township.

The smallest red circles on the proposed land use map represent central business district commercial areas located within established communities. In Chester County these centers usually have market areas of less than 50,000 population. They have traditionally been the backbone of the County's commercial network. However, they have recently been threatened by the development of regional shopping centers, by strip commercial development and by traffic congestion.

CBD commercial centers are the central places around which sub-County planning regions are built. Each planning region in Chester County includes at least one CBD center. The hinterlands of these CBD's generally define the areas of the planning regions.

Residential Development Plan

Basic Residential Locational Criteria -- Accessibility To Employment And High Environmental Quality

Of all the land use, residential land is freest to locate almost anywhere. Nonetheless, locations with the greatest accessibility or locations with valuable mineral resources are generally not available to residential development -- the cost of the land is too great.

Two criteria are important in choosing sites for residential development: time-distance (from place of employment to home) and environmental quality. Residential land is generally limited to an automobile travel time of one-half to one hour from place of employment. The second criterion affecting residential location is the environmental quality and the real or perceived social quality of an area. The social and environmental quality of an area is determined by many factors: quality of municipal and school services, the level of taxes in relation to public service, the natural beauty of the surroundings, public safety, quality of housing, etc.

Public Water And Sewers Are Major Determinants

Of all the public services, public water and sewerage are the most difficult and expensive to supply and thus limiting to relatively dense development. The linked pipe systems must be continuous and thus they have a major effect on development in directing a more or less continuous and successive building outward from existing centers has the advantages in providing other types of public service more efficiently.

Every municipality, the County, DVRPC and the Pennsylvania Department of Environmental Resources has adopted a basic sewerage plan under the Pennsylvania Act 537 to the year 1988. With few exceptions, the areas proposed for sewerage are also acceptable on the basis of topography, access to transportation, access to existing or planned employment and other criteria discussed elsewhere in this Plan. It is expected that more detailed sewerage studies will be made in the years ahead.

It would seem that this sewerred land should be used with reasonable efficiency at reasonable densities. The sewerred areas are not the places for large residential lots.

In the density chapter it is suggested that the lot sizes in the sewerred areas not be larger than one-half acre in terms of zoning policy. Exceptions would be flood plains, slopes over 15%, major institutions and other planned open space.

Overall density should approach four units per acre gross residential density as indicated in the chapter about comparative density. It is expected that a variety of housing types would prevail in these residential development areas.

The Sewerred Suburban Residential Lands Should Be Used Fully

Since the sewerred residential lands proposed for development are strategically located in terms of accessibility and natural conditions, they should be fully used consistent with environmental quality. The appropriate residential density always involves a trade-off between land, utility and transportation savings with these higher densities and the ecological social frictions.

Density standards always involve a specific tailoring to a given site and locality, and thus no arbitrary rules can be given. Density always involves a trade-off between land and a more open environment.

Many publications have brought out the fact that the PRD format for most development is generally the best compromise between cost savings and environmental quality. It is expected that the planned residential development may become the prevailing pattern.

There Is Ample Residential Land For Future Population Growth

The developed and undeveloped areas within the 1985 sewerage plan were mea-

sured and are available in tabular form in the Planning Commission office.

The 1988 sewerage plan includes about 125,000 acres out of the total County area of 487,000 acres (just about 25% of the County's area). Of the 125,000 acres about 50,000 are wholly or partially developed. Even within these developed areas there would be some possibility for utilizing some existing vacant lots. Of the 75,000 acres of undeveloped land about 20,000 has been proposed for industrial, commercial and major institutional uses. Thus 55,000 acres remain for residential use. Perhaps about 10,000 acres might be deducted since this includes areas of steep slopes or alluvial soils. Thus a minimum of 40,000 acres exists for residential development within the proposed sewerred areas. It is apparent that at an average gross density of four units per acre, there would be space to accomodate 160,000 new housing units.

Plan For Agricultural Preservation

It is hoped that the County Plan will encourage the preservation of agriculture by: (1) Guiding urban growth into suitable locations at reasonable densities thus removing urban pressures from rural areas (2) Helping to develop a better planned pattern of rural uses so that agricultural and urban uses can live together compatibly.

In the past, land use controls that restrict usage to agriculture have had only limited application, and they usually were in effect only where there was voluntary agreement among the land owners. Thus, in West Nantmeal Township landowners supported ten acre minimum agricultural zoning. Also, there is some exclusive agricultural zoning for some of the best farmlands in Lancaster and Berks Counties.

The Pennsylvania General Assembly with Act 515 of 1966 and the recent Farmland Assessment Act 319 gave major real estate tax concessions to agriculture and open land. There is also discussion and interest among planners and others as to the transfer of development rights that could help preserve agricultural lands.

-  EXISTING SERVICE AREAS
- AREAS WHERE PUBLIC WATER WILL MOST LIKELY BE AVAILABLE BY 1985 ACCORDING TO MUNICIPAL AND COUNTY PLANS, AND LOGICAL EXTENSIONS OF EXISTING WATER LINES
-  OCTARARO WATER CO. TRANSMISSION LINE
-  CHESTER MUNICIPAL WATER AUTHORITY LINE
-  EXISTING RESERVOIRS
-  PROPOSED RESERVOIRS
-  POSSIBLE PIPELINE FROM SCHUYLKILL RIVER
-  POSSIBLE WATER SERVICE LINE FROM CHESTER MUNICIPAL WATER AUTHORITY

 The pipeline route depicted here is only one of several routes under consideration for possible added water supply.

Prepared by the Chester County Planning Commission for the Chester County Water Resources Authority

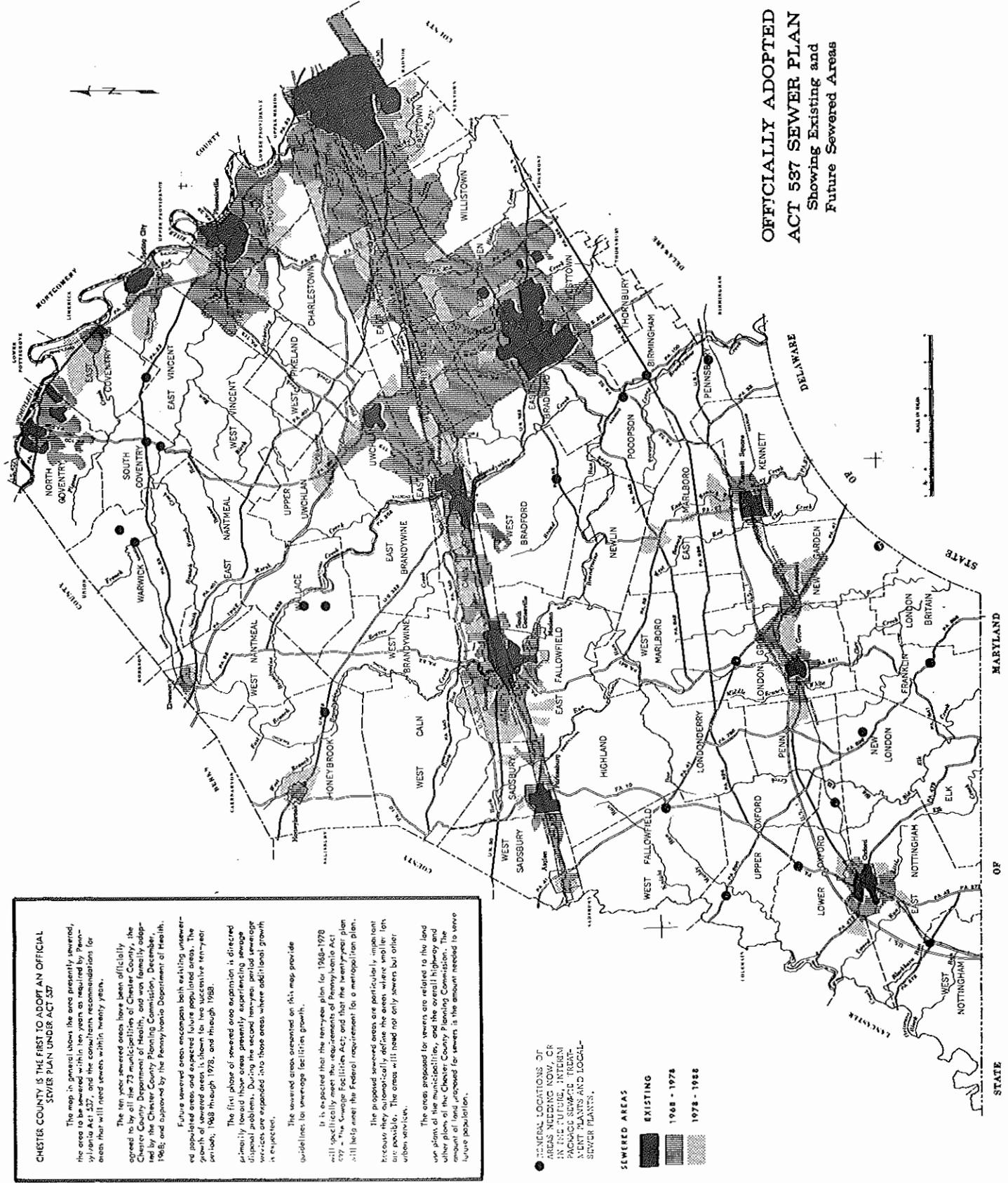


WATER SUPPLY

1975

CHESTER COUNTY PENNSYLVANIA

**OFFICIALLY ADOPTED
ACT 537 SEWER PLAN
Showing Existing and
Future Sewered Areas**



CHESTER COUNTY IS THE FIRST TO ADOPT AN OFFICIAL SEWER PLAN UNDER ACT 537

The map in general shows the area presently sewer- ed by Act 537, and the consultants' recommendations for areas that will need sewers within twenty years.

The ten year sewer areas have been officially agreed to by all the 23 municipalities of Chester County, the Chester County Department of Health, and was formally adopted by the Chester County Planning Commission, December, 1968, and approved by the Pennsylvania Department of Health.

Future sewer areas encompass both existing unsewer- ed populated areas and expected future populated areas. The growth of sewer areas is shown for two successive ten-year periods, 1968 through 1978, and through 1988.

The first phase of sewer area expansion is directed primarily toward those areas presently experiencing sewerage disposal problems. During the second ten-year period sewerage services are expanded into those areas where additional growth is expected.

The sewer area oriented on this map provide guidelines for sewerage facilities growth.

It is expected that the ten-year plan for 1968-1978 will specifically meet the requirements of Pennsylvania Act 537 - "The Sewerage Facilities Act" and that the twenty-year plan will help meet the Federal requirement for a metropolitan plan.

The proposed sewer areas are particularly important because they will officially define the areas where water, for our people. The areas will need not only sewers but other water services.

The areas proposed for sewers are related to the land use plans of the municipalities, and the overall highway and other plans of the Chester County Planning Commission. The amount of land proposed for sewers is the amount needed to serve future population.

- GENERAL LOCATIONS OF AREAS NEEDING NOW OR IN THE FUTURE INTERIM PACKAGE SEWAGE TREATMENT PLANTS AND LOCAL SEWER PLANTS.
- SEWERED AREAS**
- EXISTING
 - 1968 - 1978
 - 1978 - 1988

Criteria To Be Used To Designate Agricultural Preservation Lands

Some of the criteria used in suggesting those lands to be considered for agricultural preservation includes:

- 1) Agricultural Quality of Soils - Refer to the map entitled "Agricultural Land Capabilities". This map displays the capability of soils in terms of agricultural potential. It is apparent that there are large areas of good agricultural soils in Chester County.
- 2) Remoteness From Urban Pressures - Lands remote from the process of urbanization, can maintain their rural identity.
- 3) Areas That Have Economically Viable Farm Operations - Those rural areas where farming is the primary form of livelihood should be maintained.
- 4) Presence of Agricultural Support Facilities - Serious agriculture needs support facilities such as agricultural implement dealers, feed grain sources, fertilizers, veterinary services and marketing sources. For the most part these essential support services are located in the western part of the County, often shared with Lancaster and Berks County farmers. Absence of these services in eastern Chester County is making serious agriculture there more difficult.
- 5) Local Plans and Zoning - Townships with agricultural preservation as a goal and a willingness to entertain large lot zoning can help preserve agricultural lands. To be effective agricultural zoning should be at least ten acres since this is the minimum size required under both Act 515 and the recent Farmland Assessment Act 319. Housing and other activities needed to support farming could be permitted in agricultural zones, but preferably on the poorer soils and steeper slopes. Subdivisions and non-farm related businesses, however, would not be permitted in agricultural preservation areas.

Agricultural Zoning Would Need To Be Supported By County And Sub-County Regional Planning

The present strong direction from the Pennsylvania courts is that zoning and public regulations can not be used to deny essential needs of society. The courts suggest that an effective regional planning process might result in their reconsideration of the area basis upon which their judgments have been made. It is hoped that the metropolitan plan, the County Plan and the resulting sub-County regional plans would be the basis for that planning process.

It is further hoped that the courts will recognize the need to preserve agricultural lands since food and open space are also essential to the needs of society as they have recognized society's need for housing commerce and industry.

Recreational And Other Public Open Space

Over the years planners and those in recreational professions have developed "standards" for various categories of recreational open space. The earlier approach was to establish a somewhat arbitrary number of acres (such as twenty acres per 1000 population for regional parks) as the goal. The more recent "activity analysis" attempts more complicated behavioral measures (such as number of square feet of swimming area per unit of population). These standards and their application to Chester County were analyzed in the 1973 study entitled Open Space Inventory. By either approach Chester County would be considered deficient in both local parks (554 acres of municipal parks in 1970 versus a "need for" 1470 acres); and especially in larger county and regional parks - having only 1670 acres versus a 1970 need for 3,390 acres or a deficiency of 2,325 acres. These deficiencies, of course, would continue to grow with population increases and as the standards or goals also continue to rise.

These standards may be criticized as being idealistic and may not take private open space and other alternatives into consideration. They were originally developed for small cities and may not realistically apply to lightly settled rural or suburban areas, where there are many

alternatives for some areas in private recreation space and facilities.

The lack of public open space is, however, partially compensated by considerable private and semi-public open space, such as camps, golf courses, and arboretums within the County. Major recreational areas along the New Jersey and Chesapeake Bay shores and in the Pocono Mountain region are less than a half-day's travel time. The major private, quasi-public and public open space are shown on the map entitled "Recreational Land" and in statistical detail in the Open Space Inventory.

In Chester County there is a great reluctance to involuntary acquisition of private lands for public open space. However, in some cases landowners can be persuaded to donate some lands, or to take advantage of federal tax deductible conservation easements.

As of early 1975, it does not seem that there are public funds available in the near future from any level of government for major open space acquisitions. The State "Project 70" and "Project 500" funds are committed. The fiscal strains on county government suggest that large capital outlays for parks are not likely. Federal funds from the Bureau of Outdoor Recreation are reduced, and there is now a strong feeling that what funds are available should be spent for active recreation in "ghetto type" areas rather than for rural or suburban parks.

Hopefully, the present fiscal difficulties may not always be the picture; and that long before the Year 2000, funds and public support may become available for a much more imaginative and active public open space acquisition. There is much public interest in outdoor recreation, and a gradual trend to more leisure time for more people. One hopeful sign is the new Housing and Community Development Act of 1974, which among other things would permit urban counties and other eligible to spend for recreation.

The County Plan Suggests Priorities For Future County And Regional Park Acquisition As Funds May Become Available

The County Plan, however, can attempt some general proposals for additional larger county or regional park proposals, some of which are under serious thought for acquisition. They follow in appropriate priority order. Much additional work will be needed in future planning to prepare a more specific plan.

1. Abandoned Valley Forge Hospital Ground Acquisition- The County Commissioners in 1974 made application for 53 acres of the abandoned hospital including a 9 hole golf course, swimming pool, bowling alley, tennis courts, baseball field and other grounds with the hope that it would become a large playfield type of active use county park. This park might serve as a testing ground for the use of and popularity of this type of active recreational park for other locations within the County.
2. Abandoned New Holland Branch Acquisition- The County Commissioners in October, 1974, made preliminary application for the last of the state project 500 funds for the acquisition of 6.7 miles of the abandoned New Holland Branch of the Penn Central from the Route 30 Bypass north along the East Branch of the Brandywine Creek to Comog. This acquisition would make an extraordinarily valuable hiking and biking trail, flood plain protection help, and nature observancy area. In addition, most of the line would be used for the necessary trunk sewer for the Marsh Creek Park and Reservoir.

The abandoned West Chester - Frazer Branch may also have recreational possibilities and would hold the right-of-way should it be ever needed again for transportation. If additional railroads are abandoned they should similarly be held and reused as recreational lands.

3. Additional Brandywine Plan And Other Water Supply Reservoirs - The costs and difficulties of large park acquisition, and the need for water based recreation is so great that it is unlikely that large reservation type parks will be acquired (unless by gift or some special price) unless they are also reservoir sites.

Two of the reservoirs proposed for the Brandywine Plan and now completed are the large Marsh Creek and the smaller Struble Reservoir. They have already some appropriate recreation.

Additional reservoirs are being planned or considered on the East Branch Shamono, and the west Branch in the vicinity of Icedale, or a smaller alternative upstream near Birdell. It is hoped that these reservoirs could also be used for appropriate recreation as well as for water supply and flood control.

4. Stream Valley Preservation - Flood plains, and other wetlands and slopes along streams have long been recognized as the most important lands to keep open and have proposed innumerable times in virtually every planning report for open space preservation. Although many of these ecological benefits can be obtained under private ownership, it is obvious that many more could gain the aesthetic and other recreational benefits if some stream valley areas were available to the public, as is the Wissahickon Creek in Philadelphia.
5. Additional Large Playfields in Populated Areas - If suitable land became available in either Eastern Chester County or in the West Chester area there would seem to be an opportunity for a large playfield type of park with swimming, tennis, baseball and football to serve functions similar to the proposed park at the Valley Forge Hospital site.

6. Schuylkill River Frontage- River fronts have always been potential park areas ever since cities existed since the water aspects add to scenic attractiveness as well as providing flood protection and water quality protection.

During the late 1960's the then Pennsylvania Department of Forests and Waters, on the basis of considerable study proposed a park and historic restoration project at the Block Rock Reservoir upstream from Phoenixville. It would seem that this project might now be reconsidered. It would complement the Valley Forge Park.

Other sites along the Schuylkill including some of the urban renewal land in North Coventry, may have some possibilities.

Private Actions Will Have To Preserve Most Of the Open Space

Because of the limited funds for public acquisition, the private actions will remain the major way open space can be preserved. Of particular importance in some areas is the role of the non-profit Conservation Trust in acquiring and holding tax deductible lands. Chester County is fortunate in having two such trusts serving the County which have both had success in acquiring considerable lands of an ecologically sensitive nature.

The French and Pickering Trust serving northern Chester County, has acquired conservation easements on many key parcels along the flood plain of French Creek. The Tri-County Conservancy at Chadd's Ford, in addition to an extensive environmental research program, has acquired easements on nearly all the main stream of the Brandywine from Lenape south and some additional lands elsewhere.

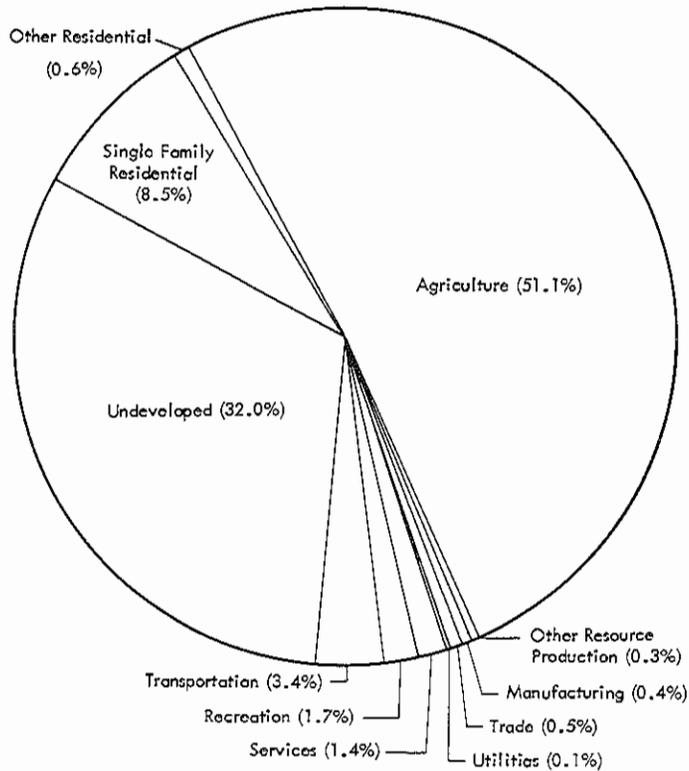
Only Limited Progress Has Been Made In Preserving Historic Sites

As an area whose historic roots go nearly all the way back to the earliest European settlement in America, Chester County is unusually blessed with a rich historic heritage covering, in varying degree, America's architectural experience, particularly the colonial period as well as early rural architecture. Yet only in more recent years has any systematic effort been made to inventory and evaluate these sites.

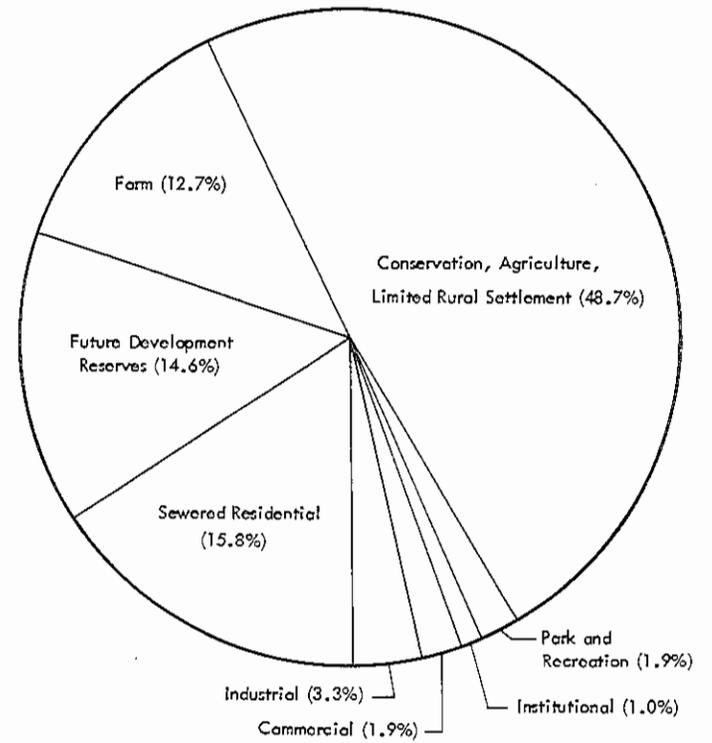
The most important single preliminary step is to secure registration on the Pennsylvania Inventory of Historic Places, and if the site is of sufficient importance, on the National Register of Historical Places. Placing a building or a site on either register makes it somewhat difficult to destroy them.

1970 EXISTING LAND USE

Source: DVRPC Land Use Survey



PROPOSED 1985 LAND USE CHESTER COUNTY INTERIM GENERAL PLAN



SOIL SURVEY INTERPRETATIONS ARE THE KEY TO FARM AND CONSERVATION PLANNING

Use of land in accordance with its inherent capabilities is the basis of all farm and conservation planning, and the soil survey is the key. Soil surveys were originally devised to indicate the land that is suitable for cropland, for pasture, or for only woodland, and the conservation treatment needed for each.

Eight categories of agricultural land capability were designed by the U.S. Soil Conservation Service as defined below, although on this map categories V through VII (these are not suitable for cultivation) were lumped together.

Agricultural land capability classes are determined by parent material, slope, soil depth, drainage, and erosion. They are not necessarily the same as productivity. Estimated crop productivity under average and good management is given in the soil report.

This map was based entirely on the detailed Chester County Soil Survey made acre by acre during the 1950's (and published July 1963) by

the U.S. Soil Conservation Service. The categories and even the colors are the same as used in the individual farm plans prepared by them.

The Chester County Planning Commission acquired (in 1962) advance copies of the 72 detailed soil maps and during 1962 and 1963 hand colored the eight categories of agricultural capabilities via the established standards. These 72 maps were reduced to a single County map and color separations prepared.

In order to show a large county on a single small sheet, and thus the overall relationships, some of the categories had to be generalized and may contain other categories within a single indicated category. More detailed interpretative maps vital for individual farm planning are on file at the Chester County Planning Commission, or may be learned from the raw data maps in the published soil survey. Further help and individual detailed farm plans are available without charge on application to the Chester County Soil and Water Conservation District.

AGRICULTURAL LAND CAPABILITIES

Land Suitable for Regular Cultivation

Class I (5,022 acres, 1% of the County area) - These soils have few or no conditions that limit their use. They are deep, well drained soils and are level areas found on uplands and silty soils on flood plains. They can be cultivated safely without special conservation treatment.

Class II (255,529 acres, 52.5% of the County area) - These soils have more serious or more numerous limitations than those in Class I. The limitations may be natural ones - such as steep slopes, sandy or shallow soils, or too little or too much water. Thus they are more restricted in the crops they can produce, or when cultivated, call for conservation practices more difficult to install or keep working efficiently.

Class III (57,933 acres, 11.9% of the County area) - These soils have several limitations that restrict the kinds of plants they can grow. They are suitable for occasional but not regular cultivations and require very careful management. These soils are usually more severely eroded or have more excess water than those in Class III.

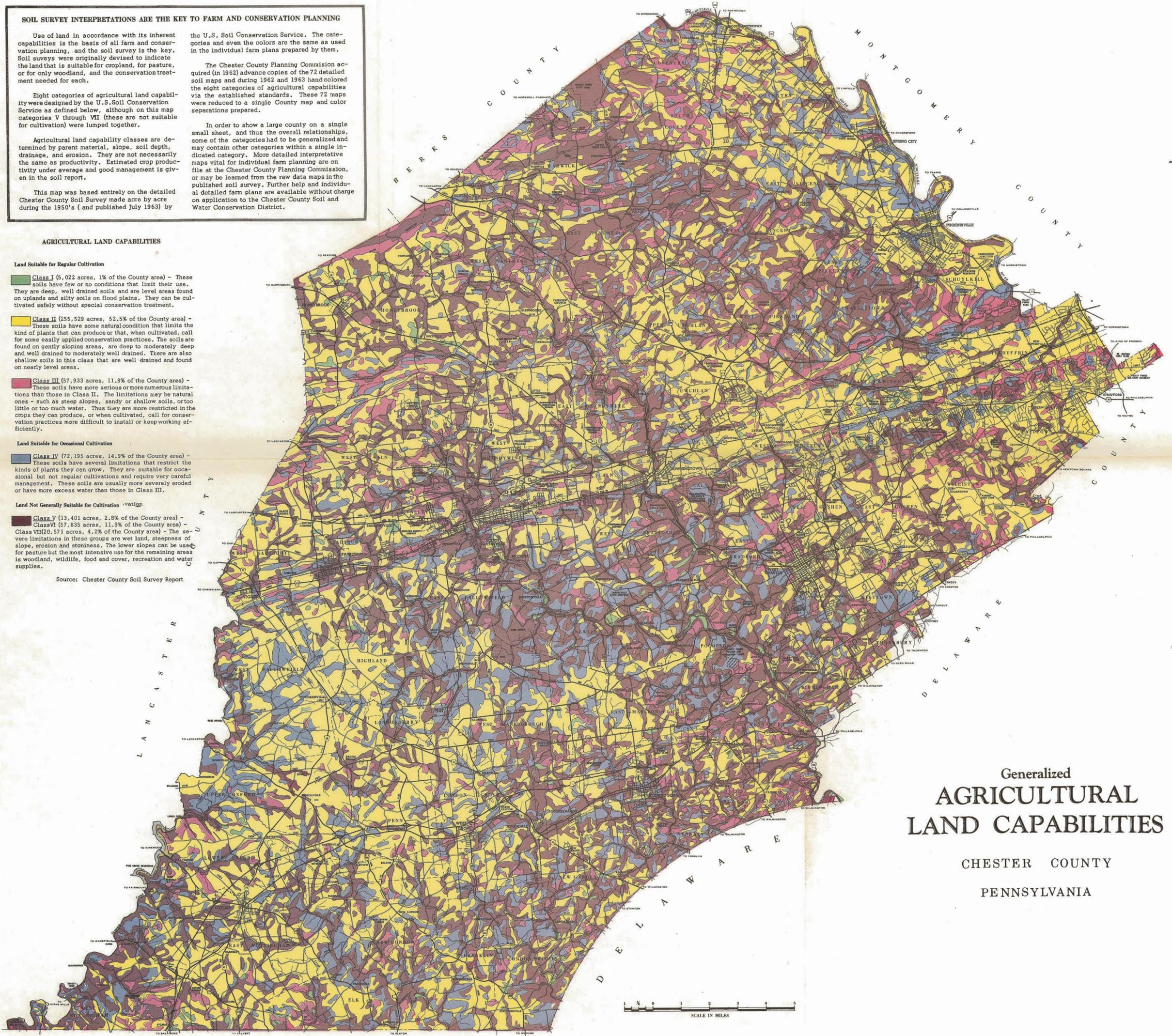
Land Suitable for Occasional Cultivation

Class IV (72,195 acres, 14.9% of the County area) - These soils have several limitations that restrict the kinds of plants they can grow. They are suitable for occasional but not regular cultivations and require very careful management. These soils are usually more severely eroded or have more excess water than those in Class III.

Land Not Generally Suitable for Cultivation

Class V (13,401 acres, 2.8% of the County area) - **Class VI** (57,835 acres, 11.9% of the County area) - **Class VII** (20,571 acres, 4.2% of the County area) - The severe limitations in these groups are wet land, steepness of slope, erosion and stoniness. The lower slopes can be used for pasture but the most intensive use for the remaining areas is woodland, wildlife, food and cover, recreation and water supplies.

Source: Chester County Soil Survey Report



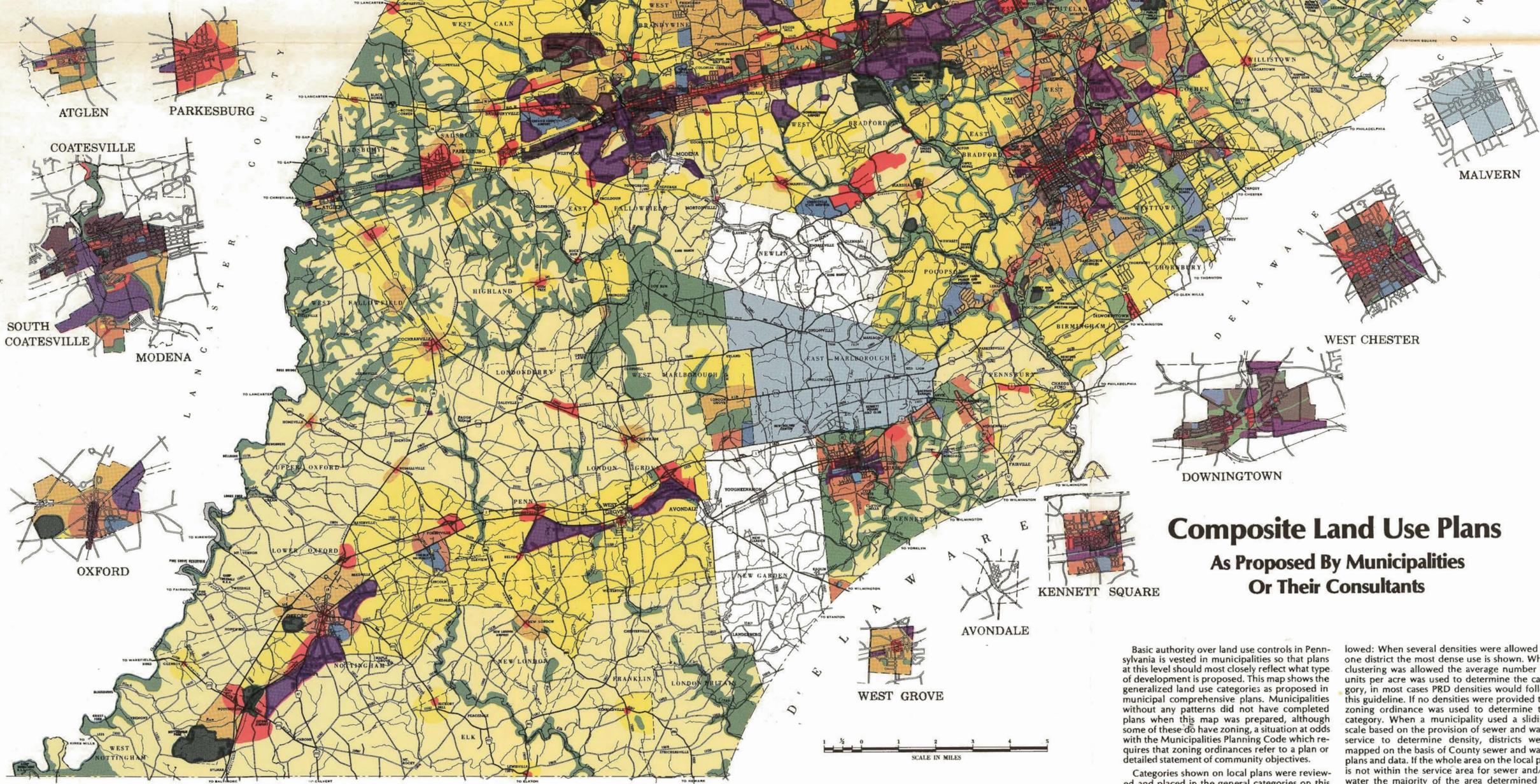
Generalized
**AGRICULTURAL
 LAND CAPABILITIES**
 CHESTER COUNTY
 PENNSYLVANIA

SCALE IN MILES

M A R Y L A N D

- Residential**
-  **Multi-Unit Structures**—apartments, condominiums cooperatives, mobile home parks (with 10 or more units per acre).
 -  **Urban**—single unit structures on lots of less than 5,000 square feet, or double homes, row homes and townhouses which average less than 5,000 square feet per unit.
 -  **High Density**—areas with residential densities from 5,000 to 11,999 square feet or approximately ¼ acre per unit.
 -  **Medium Density**—areas with residential densities from 12,000 to 29,999 square feet or approximately ½ acre per unit.
 -  **Low Density**—areas with residential densities from 30,000 to 69,999 square feet or approximately 1 acre per unit.
 -  **Rural Density**—areas with residential densities from 70,000 or more square feet or approximately 2 acres per unit and agricultural uses.
- Central Uses**
-  **Public and Institutional**—public and private schools, lodges, public buildings, cemeteries, hospitals, union halls, utilities (except water reservoirs), and railroad right-of-ways, major highway right-of-ways if on plan separately.
 -  **Industrial**—all categories of industrial uses and related offices and parking areas.
 -  **Commercial**—offices, wholesale and retail businesses, warehousing and associated parking areas.
- Open Space**
-  **Recreational**—public parks, including flood plains designated as parks, golf courses, and other public and private recreational uses.
 -  **Conservation**—flood plains, wet soil, high slopes, public and private open space, historic districts, woodlands, and water supply reservoirs.
 -  **Comprehensive Plan In Process**
 -  **No Comprehensive Plan**

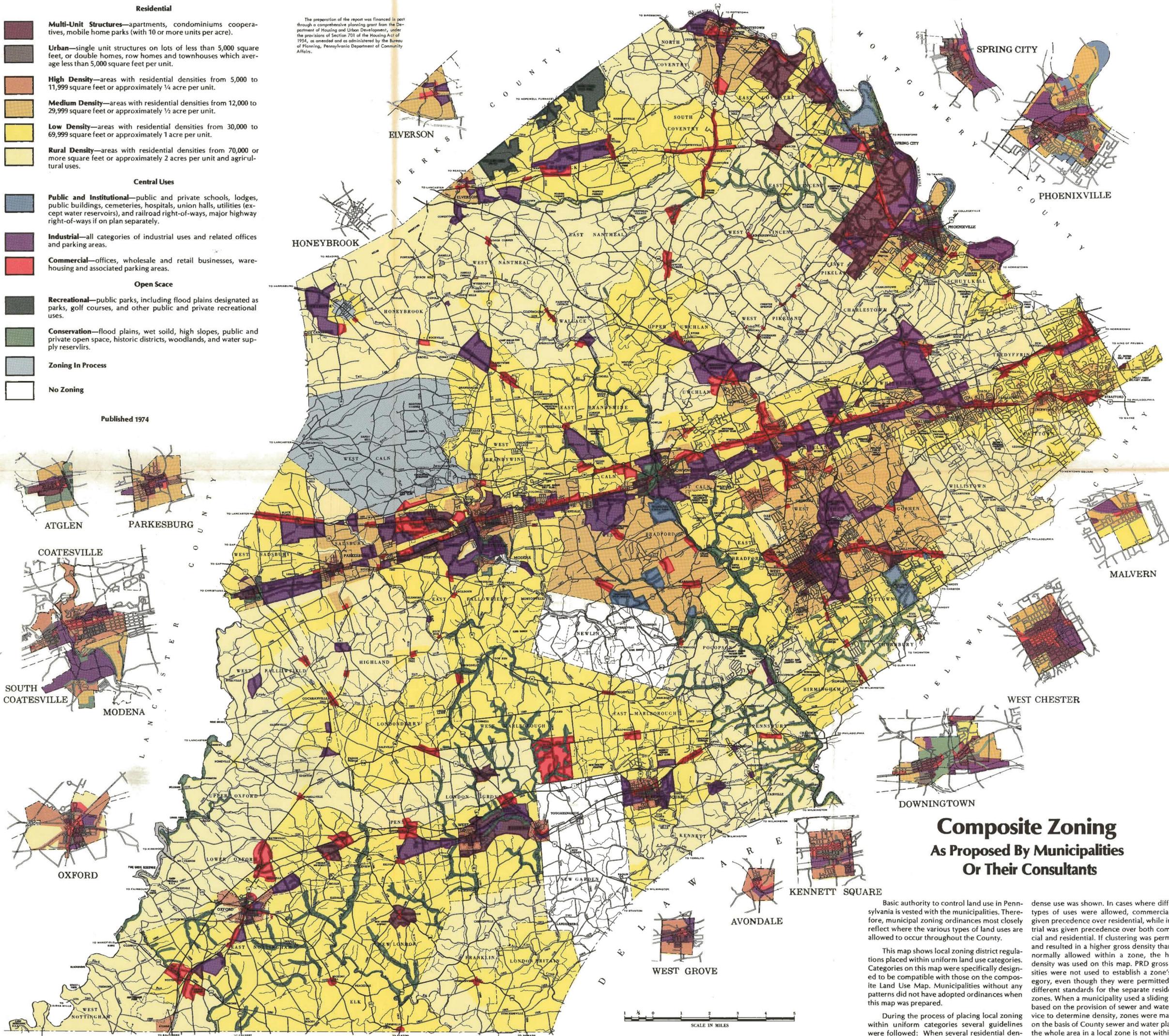
Published 1974



Composite Land Use Plans As Proposed By Municipalities Or Their Consultants

Basic authority over land use controls in Pennsylvania is vested in municipalities so that plans at this level should most closely reflect what type of development is proposed. This map shows the generalized land use categories as proposed in municipal comprehensive plans. Municipalities without any patterns did not have completed plans when this map was prepared, although some of these do have zoning, a situation at odds with the Municipalities Planning Code which requires that zoning ordinances refer to a plan or detailed statement of community objectives.

Categories shown on local plans were reviewed and placed in the general categories on this map. In this process several guidelines were followed: When several densities were allowed in one district the most dense use is shown. When clustering was allowed the average number of units per acre was used to determine the category, in most cases PRD densities would follow this guideline. If no densities were provided the zoning ordinance was used to determine the category. When a municipality used a sliding scale based on the provision of sewer and water service to determine density, districts were mapped on the basis of County sewer and water plans and data. If the whole area on the local plan is not within the service area for sewer and/or water the majority of the area determined its category.



The preparation of the report was financed in part through a comprehensive planning grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended and as administered by the Bureau of Planning, Pennsylvania Department of Community Affairs.

Residential

- Multi-Unit Structures**—apartments, condominiums cooperatives, mobile home parks (with 10 or more units per acre).
- Urban**—single unit structures on lots of less than 5,000 square feet, or double homes, row homes and townhouses which average less than 5,000 square feet per unit.
- High Density**—areas with residential densities from 5,000 to 11,999 square feet or approximately 1/4 acre per unit.
- Medium Density**—areas with residential densities from 12,000 to 29,999 square feet or approximately 1/2 acre per unit.
- Low Density**—areas with residential densities from 30,000 to 69,999 square feet or approximately 1 acre per unit.
- Rural Density**—areas with residential densities from 70,000 or more square feet or approximately 2 acres per unit and agricultural uses.

Central Uses

- Public and Institutional**—public and private schools, lodges, public buildings, cemeteries, hospitals, union halls, utilities (except water reservoirs), and railroad right-of-ways, major highway right-of-ways if on plan separately.
- Industrial**—all categories of industrial uses and related offices and parking areas.
- Commercial**—offices, wholesale and retail businesses, warehousing and associated parking areas.

Open Space

- Recreational**—public parks, including flood plains designated as parks, golf courses, and other public and private recreational uses.
- Conservation**—flood plains, wet soil, high slopes, public and private open space, historic districts, woodlands, and water supply reservoirs.
- Zoning In Process**
- No Zoning**

Published 1974

**Composite Zoning
As Proposed By Municipalities
Or Their Consultants**

Basic authority to control land use in Pennsylvania is vested with the municipalities. Therefore, municipal zoning ordinances most closely reflect where the various types of land uses are allowed to occur throughout the County.

This map shows local zoning district regulations placed within uniform land use categories. Categories on this map were specifically designed to be compatible with those on the composite Land Use Map. Municipalities without any patterns did not have adopted ordinances when this map was prepared.

During the process of placing local zoning within uniform categories several guidelines were followed: When several residential densities were allowed in one zone, either directly or by qualified special exception, the most

dense use was shown. In cases where different types of uses were allowed, commercial was given precedence over residential, while industrial was given precedence over both commercial and residential. If clustering was permitted and resulted in a higher gross density than was normally allowed within a zone, the higher density was used on this map. PRD gross densities were not used to establish a zone's category, even though they were permitted with different standards for the separate residential zones. When a municipality used a sliding scale based on the provision of sewer and water service to determine density, zones were mapped on the basis of County sewer and water plans. If the whole area in a local zone is not within the planned sewer and water service area the majority of the area determined its category.



Land Use

The land use pattern as it has developed in response to the forces of history, geography, geology, and changing economics and technology is the starting point for all planning, since we must begin from where we are now to plan for better use of the land, and correct past misuses and abuses.

The Chester County Planning Commission gave early emphasis to preliminary generalized existing land use studies. Initial surveys were made during 1960 and 1961 by the then County planning consultants, Harkins and Alvare. During 1962 and 1963, additional detail was added using such sources as aerial photographs and the tax records. From the data collected, the first generalized land use map of the County was published in 1963.

As stated in the title, this map represents the uses of the land as they existed in 1972. The actual period of survey was from early summer of 1972 through September of that year.

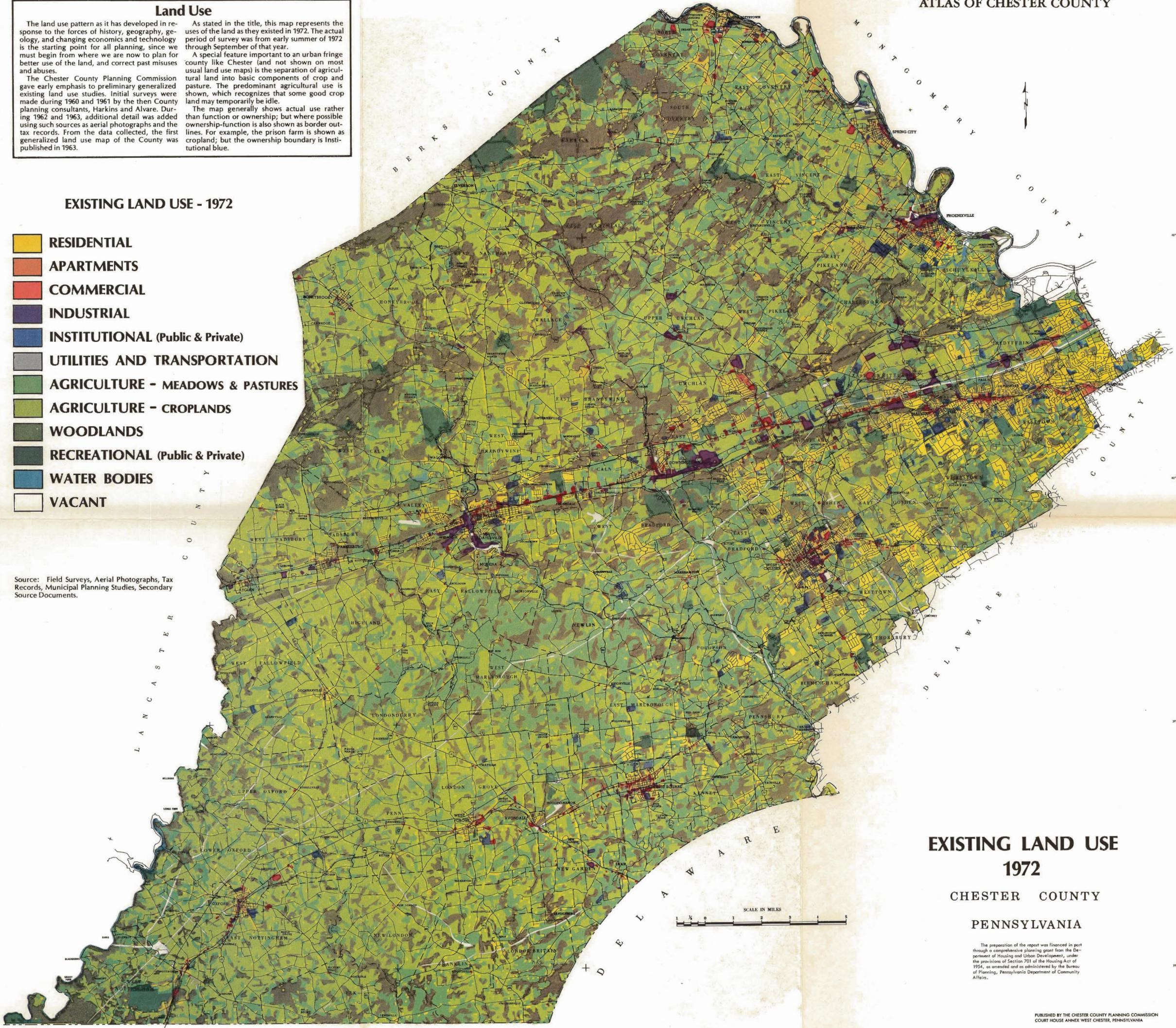
A special feature important to an urban fringe county like Chester (and not shown on most usual land use maps) is the separation of agricultural land into basic components of crop and pasture. The predominant agricultural use is shown, which recognizes that some good crop land may temporarily be idle.

The map generally shows actual use rather than function or ownership; but where possible ownership-function is also shown as border outlines. For example, the prison farm is shown as cropland; but the ownership boundary is Institutional blue.

EXISTING LAND USE - 1972

- RESIDENTIAL
- APARTMENTS
- COMMERCIAL
- INDUSTRIAL
- INSTITUTIONAL (Public & Private)
- UTILITIES AND TRANSPORTATION
- AGRICULTURE - MEADOWS & PASTURES
- AGRICULTURE - CROPLANDS
- WOODLANDS
- RECREATIONAL (Public & Private)
- WATER BODIES
- VACANT

Source: Field Surveys, Aerial Photographs, Tax Records, Municipal Planning Studies, Secondary Source Documents.



**EXISTING LAND USE
1972
CHESTER COUNTY
PENNSYLVANIA**



The preparation of the report was financed in part through a comprehensive planning grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended and as administered by the Bureau of Planning, Pennsylvania Department of Community Affairs.

Sewered Suburban Residential Development

There is residential land proposed for suburban densities and where sewers are proposed in present plans. The County Plan does not attempt to suggest specific housing densities or mixes of structural types, other than the density should be enough (at least one-half acre lots) to justify public sewers. It is suggested that development should average about 4 units per acre, with somewhat higher density in the urban nodes. PRD's are particularly appropriate. In general the County Planning Commission suggests that gross residential, six per acre for attached townhouses, and four per acre for single family. In development areas, a maximum lot size of 1/2 acre (2 dwelling units per acre) is suggested.

Future Development Reserve

These areas could have development potential but are not actually needed for development until well beyond 1985. These lands could be reached at some future time by extensions of regional sewers, but that time is a long way off. Since, it is not to foresee future needs in these areas, they should remain in large lot zoning for the present. In some cases limited package plants or lagoons might be considered, if they are otherwise suitable.

Agricultural, Conservation and Limited Rural Settlement

This category contains prime cropland and pasture land. Hopefully, most of this land will remain in farms. Many are viable productive farms, and the farmers are committed to preserving agriculture. The category also includes some environmentally sensitive lands, steep slopes and flood plains. Much woodland is also present in this category. In general terms, the lands in this category are not suitable for dense development. Regional sewers and water supply are not proposed for these lands in the foreseeable future. Large lot zoning is recommended in terms of residential use.

Commercial

No attempt is made in the County General Plan to distinguish among various types of commercial uses such as: highway, shopping center, large and small business district.

Regional Center

Highway oriented commercial and service complexes with market areas of approximately 100,000 persons.

Sub-Regional Center

Highway oriented commercial and service activities with market areas of approximately 50,000 persons.

Central Business District

Commercial and service areas which are part of established population nodes.

Industrial

Land generally suited and zoned for industrial development. Municipal and sub-county regional planning should further define performance standards for industrial zoning depending upon conditions in each region.

Institutional — Public & Private

These are lands under public or private ownership that should remain open. Included are large school sites with recreational facilities, and other private institutional ground.

Parks & Recreation

These are lands under public or private ownership that should remain as citizen areas for recreational uses. Included here are parks, arboreta, golf courses, etc.

Flood Plains, Wet Soils and Steep Slopes

These are areas that should remain undeveloped because surface conditions make building difficult and very expensive. Flood plains and wet soils have been identified from the soil classifications of USDA Soil Conservation Service. Steep slopes include all areas over 25%; these slopes were also defined from Soil Conservation Service Data.

Highways

	EXISTING	PROPOSED
Limited Access	====	====
Major Four Lane	====	====

Commuter Rail Service

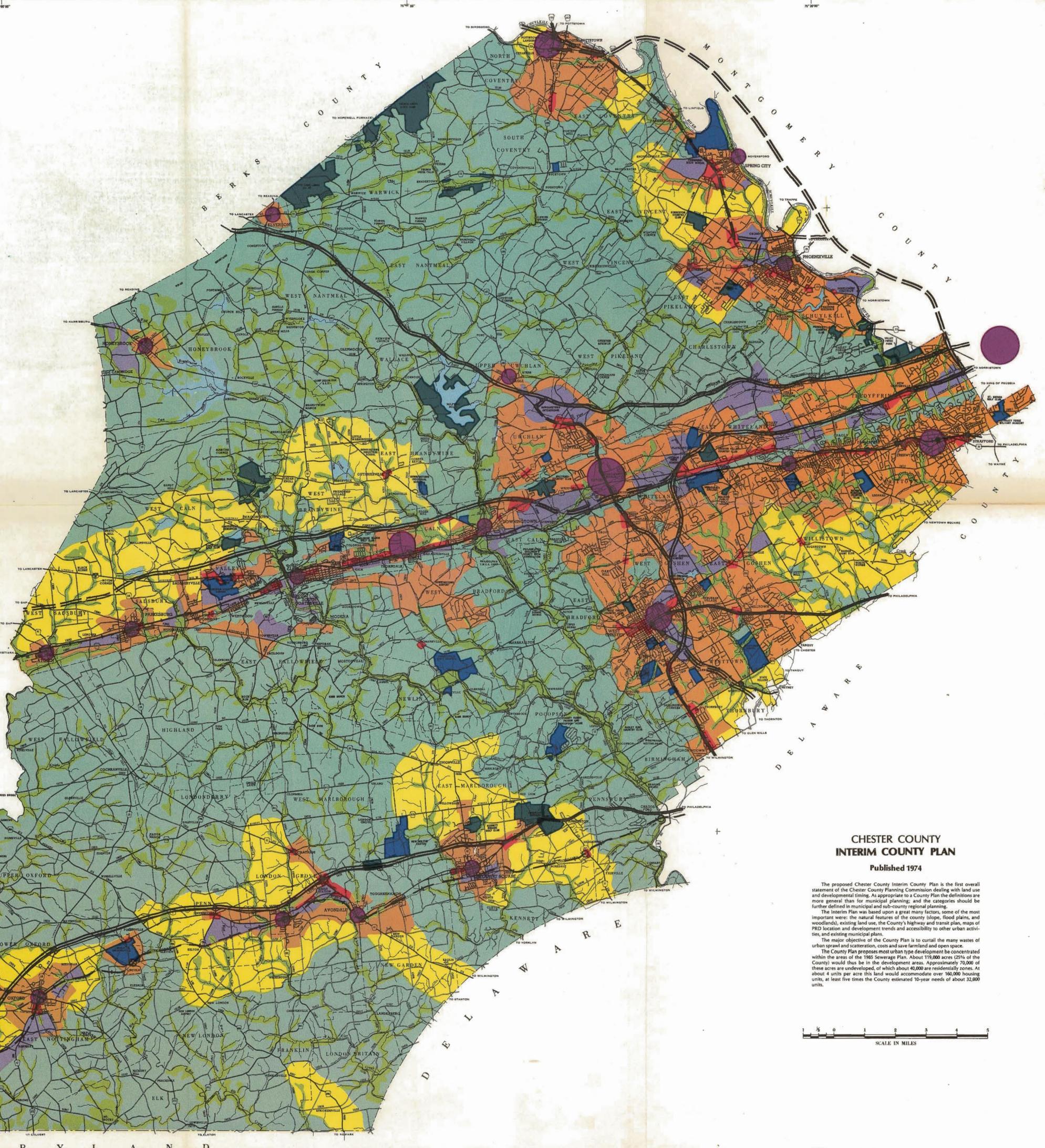
	EXISTING	PROPOSED
Service Lines	—+—+—+—+—	—+—+—+—+—
Existing Stations	●	●
Proposed Stations	○	○

Water Bodies

COUNTY TOTAL LAND AREA — 485,087 acres

CHESTER COUNTY INTERIM COUNTY PLAN
Published 1974

The proposed Chester County Interim County Plan is the first overall statement of the Chester County Planning Commission dealing with land use and developmental timing. As appropriate to a County Plan the definitions are more general than for municipal planning; and the categories should be further defined in municipal and sub-county regional planning. The Interim Plan was based upon a great many factors, some of the most important were: the natural features of the county (slope, flood plains, and woodlands), existing land use, the County's highway and transit plan, maps of PRD location and development trends and accessibility to other urban activities, and existing municipal plans. The major objective of the County Plan is to curtail the many wastes of urban sprawl and scatteration, costs and save farmland and open space. The County Plan proposes most urban type development be concentrated within the areas of the 1965 Sewerage Plan. About 115,000 acres (25% of the County) would thus be in the development area. Approximately 70,000 of these acres are undeveloped, of which about 40,000 are residentially zoned. At about 4 units per acre this land would accommodate over 160,000 housing units, at least five times the County estimated 10-year needs of about 32,000 units.



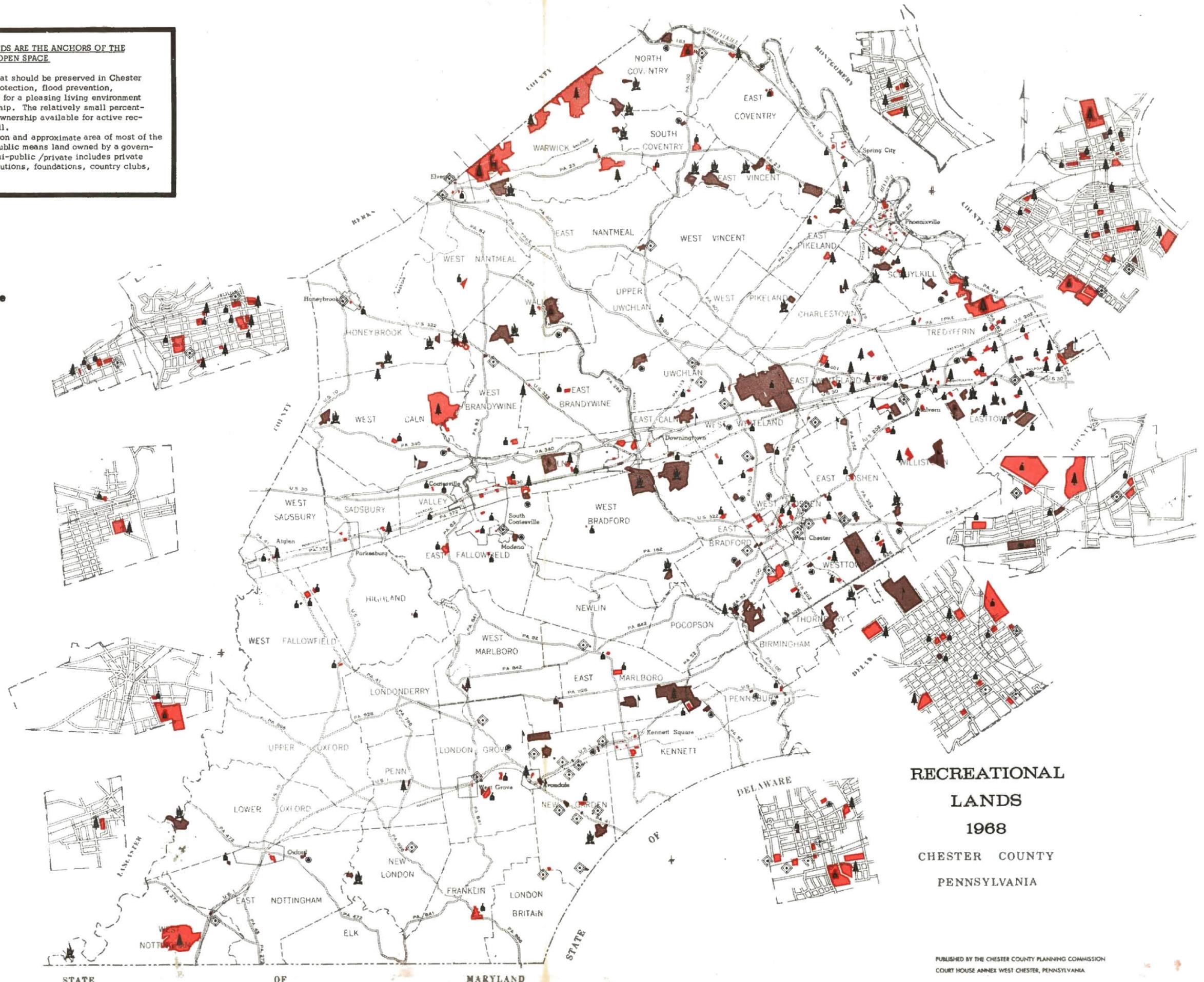
MOST PUBLIC RECREATIONAL LANDS ARE THE ANCHORS OF THE TOTAL OPEN SPACE

Most of the open space that should be preserved in Chester County for conservation, water protection, flood prevention, agricultural land preservation and for a pleasing living environment must remain under private ownership. The relatively small percentage under public or semi-public ownership available for active recreation is the most important of all.

This map shows the location and approximate area of most of the lands available for recreation. Public means land owned by a government or public school board. Semi-public/private includes private schools, non-profit camps, institutions, foundations, country clubs, some camps.

- † Country Club & Golf Course
- Swim Club
- ◇ Playground & Athletic Field
- ▲ Camp
- ♣ School, Public Institutions
- ▲ Park, Woodland (State Game Lands)

- Private & Semipublic
- Governmentally Owned



**RECREATIONAL
LANDS
1968
CHESTER COUNTY
PENNSYLVANIA**

URBAN SUITABILITY SOIL MAP HAS GREAT VALUE FOR MANY PURPOSES

Basic soil properties such as texture, depth to bedrock, depth to and seasonal variation in water table, slope and drainage have recently been found to have great value for many urban as well as farming purposes. Urban soil interpretation is a new field with much still to be learned; but soil surveys are useful for indicating relative suitability for septic tanks and cesspool sewage disposal, sanitary landfills, landscaping, and many engineering purposes such as airports and foundation suitability.

Deep, well drained soils that are suitable for septic tanks also tend to be suitable for many other uses such as sanitary landfills, golf courses, cemeteries, trees and shrubs, farmlands. Conversely, shallow, or wet, or flood plain soils tend to be unsuitable for most of these purposes. More detailed information is available in the text and in the official published soil survey report, although the septic tank information in the map

and text of this report supersedes that in the official report.

The seven urban suitability categories as defined below, particularly for in ground sewage disposal by septic tanks and cess pools were developed on the basis of recommendation of the State Soil Scientist, U.S. Soil Conservation Service, and the Pennsylvania Department of Health, and is the latest information as of the summer of 1963. Continuing experience may result in more refined definitions.

This map is a composite and reduction of interpretations made from the original large-scale soil survey map essential for individual preliminary site evaluation, and may be slightly generalized. More detailed color interpretative maps are available at the Chester County Planning Commission Office, or in raw data form in the officially published soil survey report.

URBAN SUITABILITY

Suitable (36,635 acres, 7.5% of the County) - Deep, well drained soils with slopes of 0 - 15%. This group is suitable for all types of buildings, and is suitable for on site sewage disposal because it has good permeability and, in most instances, does not have a ground water pollution problem.

Variable - Probably Suitable (199,758 acres, 41.4% of the County) - Moderately deep, usually well drained soils with slopes 0 - 15%. This group is usually suitable for all types of buildings on the gentle slopes, and residences and small buildings on all slopes. The minor restrictions to these soils are the nearness to bedrock. Detail exploration should be made on the Glenely soils, particularly those over mica schist bedrock in the southern part of the County, when considering a site for heavy buildings since this soil is often underlain by saprolite (rotten) rock. Even though these soils are classified as well drained and permeable and are usually suited for on site sewage disposal systems, the Glenely soils must be checked for permeability with a "percolation" test to determine feasibility of each site.

Hazardous - With Ground Water Problems (Soils over limestones - 20,613 acres, 4.3%) These soils are deep and well drained, except for the Hollinger which is shallow, with slopes 0 - 15%. These soils are suitable for most types of buildings but care should be taken to determine if sinkholes or underground caverns are present under proposed building sites.

These soils have excellent permeability, but very often the seepage from on site sewage disposal systems reaches the underground channels, thereby polluting the ground water supply. Excavation problems are extremely variable.

Conditional - Too Shallow (72,496 acres, 15.1% of the County). Major restrictions in this group are nearness of bedrock to the surface, difficulty in excavating for basements and sewage disposal systems.

This group of soils is shallow and suitable for all building types on the more gentle slopes and residences on slopes of 0 - 15%. This group of soils is classified as well drained, but because of the shallowness satisfactory on site sewage disposal systems are difficult to install properly so they will function satisfactorily.

Unsuitable - Too Wet (66,121 acres, 13.7% of the County area) These soils are deep to moderately deep, moderately well drained to poorly drained on slopes 0 - 15%. The soils that are moderately well drained such as Bedford, Beltsville, Conowingo, Glenville, Lehigh, and Readington can be used with care for most types of buildings, but on the somewhat poorly to poorly drained soils, the land can be used for residences and other small buildings if the basements are sealed or fill is used to raise the basements above the water table.

This group is unsuitable for on site sewage systems, and if buildings are constructed on these soils, public sewage systems should be available.

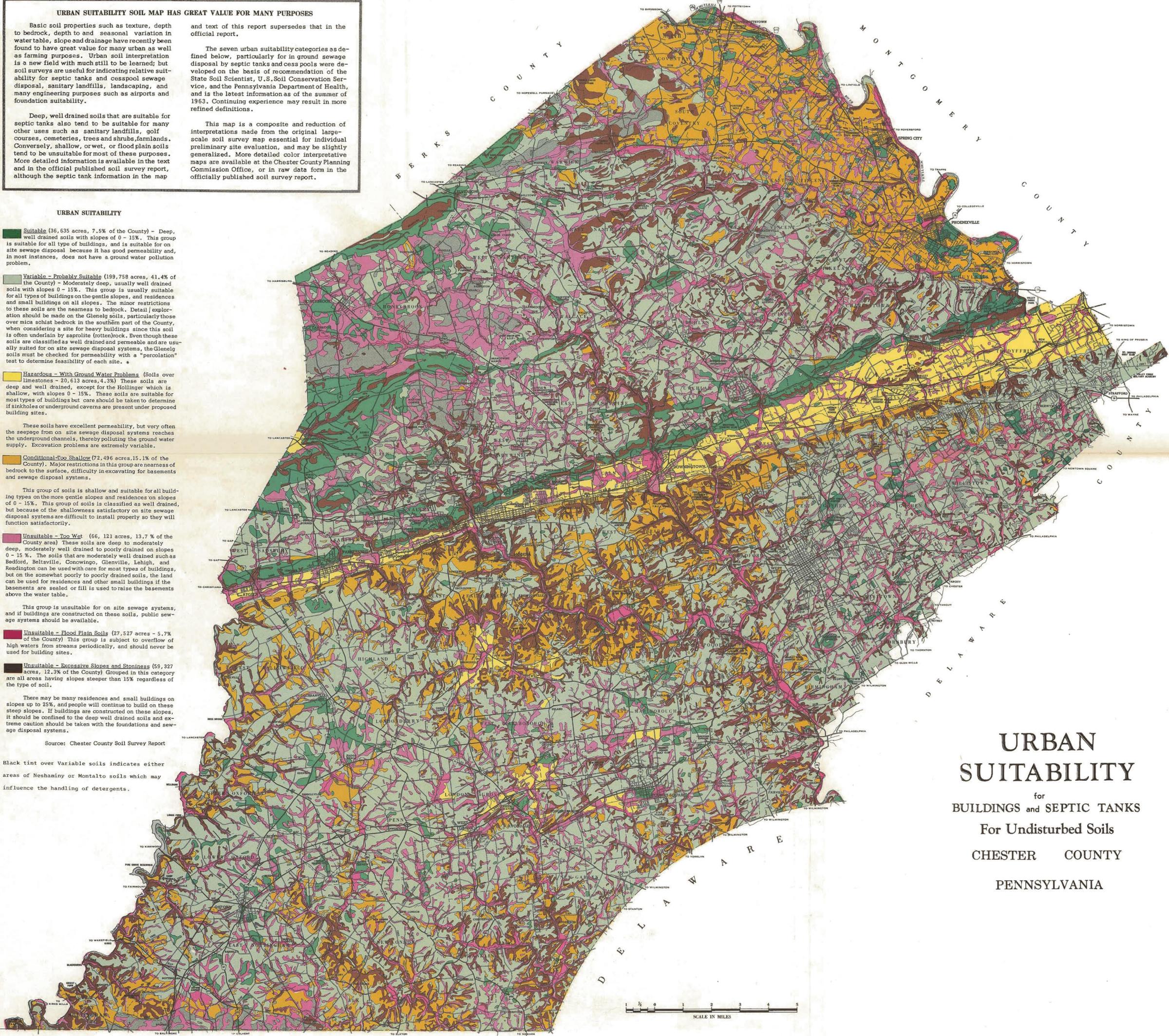
Unsuitable - Flood Plain Soils (27,527 acres - 5.7% of the County) This group is subject to overflow of high waters from streams periodically, and should never be used for building sites.

Unsuitable - Excessive Slopes and Stoniness (59,327 acres, 12.3% of the County) Grouped in this category are all areas having slopes steeper than 15% regardless of the type of soil.

There may be many residences and small buildings on slopes up to 25%, and people will continue to build on these steep slopes. If buildings are constructed on these slopes, it should be confined to the deep well drained soils and extreme caution should be taken with the foundations and sewage disposal systems.

Source: Chester County Soil Survey Report

* Black tint over Variable soils indicates either areas of Neshaminy or Montalto soils which may influence the handling of detergents.



URBAN SUITABILITY
for
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For Undisturbed Soils
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