- b Dissolved Oxygen
 - b₁ Minimum daily average 6.0 mg/L; No value less than 5.0 mg/L.
 - b₂ Minimum daily average 5.0 mg/L; No value less than 4.0 mg/L.
 - b3 Minimum daily average not less than 5.0 mg/L, except during period 4/1-6/15 and 9/16-12/31, not less than 6.5 mg/L.
 - b4 Minimum daily average not less than 3.5 mg/L, except during period 4/1-6/15 and 9/16-12/31, not less than 6.5 mg/L.

c - Iron

- c1 Total Iron Not to exceed 1.5 mg/L
- c2 Dissolved iron Not to exceed 0.3 mg/L
- d Temperature
 - dj Not to exceed 58°F rise above ambient temperatures, whichever is greater.

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- d₂ Not to exceed 5°F rise above ambient temperature or a maximum of 87°F, whichever is less; not to be changed by more than 2°F during any one hour period.
- d3 Not to exceed 5°F rise above natural temperature or a maximum of 86°F, whichever is less; not to be changed by more than 2°F during any one hour period.
- d₄ Not to exceed 93°F; not to be changed by more than 2°F during any one hour period.
- e <u>Dissolved Solids</u> Not to exceed 500 mg/L as a monthly average value; not to exceed 750 mg/L at any time.

- Bacteria (Coliforms/100 ml)

f1 - For the period 5/15-9/15 of any year; not to exceed 1,000/100 m1 as an arithmetic average value; not to exceed 1,000/100 ml in more than two consecutive samples; not to exceed 2,400/ 100 ml in more than one sample.

For the period of 9/16-5/14 of any year; not to exceed 5,000/100 ml as a monthly average value, nor to exceed this number in more than

-4-

20% of the samples collected during any month; nor to exceed 20,000/100 ml in more than 5% of the samples.

- f₂ Not to exceed 5,000/100 ml as a monthly average value; nor to exceed this number in more than 20% of the samples collected during any month; nor to exceed 20,000/100 ml in more than 5% of the sample.
- f₃ Not to exceed 5,000/100 ml as a monthly geometric mean.
- g Turbidity
 - g₁ Not to exceed 30 units during the period 5/30-9/15, nor to exceed a monthly mean of 40 units or a maximum of 150 units during the remainder of the year.
 - g_2 Maximum monthly mean 40 units, maximum value not to exceed 150 units.
- h Threshold Odor Number Not to exceed 24 at 60°C.
- i Alkalinity Not less than 20 mg/L.
- j MBAS (Methylene Blue Active Substance)
 - j_1 Not to exceed 0.5 mg/L j_2 Not to exceed 1.0 mg/L
- k Total Manganese Not to exceed 1.0 mg/L
- 1 Fluoride Not to exceed 1.0 mg/L
- m Cyanide Not to exceed 0.025 mg/L
- n <u>Sulfate</u> Not to exceed 250 mg/L or natural levels, whichever is greater.
- o Chlorides
 - o_1 Not to exceed 150 mg/L o_2 - Not to exceed 250 mg/L
- p Phosphorus (total soluble) Not to exceed 0.10 mg/L or natural levels, whichever is greater.

-6-

q - <u>Phenol</u> - Not to exceed .005 mg/L

C. Groups of Criteria

CRITERIA		GROUP A	GROUP B
<u></u>			
рН		aj	aı
Dissolved S	olids	bı	^b 2
Iron			
1101		c1	۶۱
Temperature		dı	d ₂
			이 아무 아이는 것이 아이지?
Dissolved S	ollds	e	e
D			f .
Bacterla		f ₁	

Section 7. The following criteria specific to streams in Chester County are excerpted as follows:

DELAWARE RIVER BASIN

Description of Waters		Exceptions to		
Zone <u>Number</u>	Name	Limits of Zone	Standard Water <u>Use List</u>	Specific <u>Criteria</u>
01.101.11	White Clay Creek	Source to Pa Del. State Line	Add 1.1	Gr oup A
01.101.11.11	Red Clay Creek	Confluence of East and West Branches to PaDel. State Line	Add 1.1	Group A
01.102	Brandywine Creek	Confluence of East and West Branches to PaDel. State Line	Add 1.3	Group B; Add h and 1

SUSQUEHANNA RIVER BASIN

Des	scription of	Waters	Exceptions to	
Zone <u>Number</u>	Name	Limits of Zone	Standard Water Use List	Specific <u>Criteria</u>
02.102	Octoraro	Confluence of	Add 1.1	Group A
	Creek	East and West Branches of Pa Md. State Line		

CHESAPEAKE BAY BASIN

Description of Waters		Exceptions to		
Zone <u>Number</u>	<u>Name</u>	Limits of <u>Zone</u>	Standard Water Use List	Specific <u>Criteria</u>
20.101.11	Little Elk Creek	Source to Pa Md. State Line	None	Group B
20.101.12	Big Elk Creek	Confluence of East and West Branches to Pa. Md. State Line	Noné -	Group B

-7-

APPENDIX C

IMPLEMENTATION PLAN INTERSTATE WATERS

IMPLEMENTATION PLAN INTERSTATE WATERS

CHESAPEAKE BAY

Zone 20.101.11: Little Elk Creek - Present compliance status unknown. No cases in Pennsylvania. Conduct a stream survey and submit an abatement plan, if necessary, by December 31, 1968. Secondary treatment required and provided.

Zone 20.101.12: Big Elk Creek - Present compliance status unknown. One case provides secondary treatment. Conduct a stream survey and submit an abatement plan, if necessary, by December 31, 1968. Secondary treatment required.

SUSQUEHANNA RIVER BASIN

Zone 02.102: Octoraro Creek - Present compliance status unknown. Six discharges on entire watershed all provide secondary treatment. Conduct a stream survey and submit an abatement plan, if necessary, by December 31, 1968. Secondary treatment required.

DELAWARE RIVER BASIN

- Zone 01.101.11: White Clay Creek Present compliance status unknown. Secondary treatment required and provided. Conduct a stream survey and submit an abatement plan, if necessary, by December 31, 1968.
- Zone 01.101.11.11: Red Clay Creek - Compliance status unsatisfactory due to bacteria (coliform) pollution. Secondary treatment required and provided. Adequate disinfection needed.
- Zone 01.102: Brandywine Creek Compliance status unsatisfactory due to bacteria (coliform), taste and odor, and fluoride pollution. Secondary treatment required and provided.

Major Case:

Case Name

Present Materials to Treatment be Controlled

Remarks

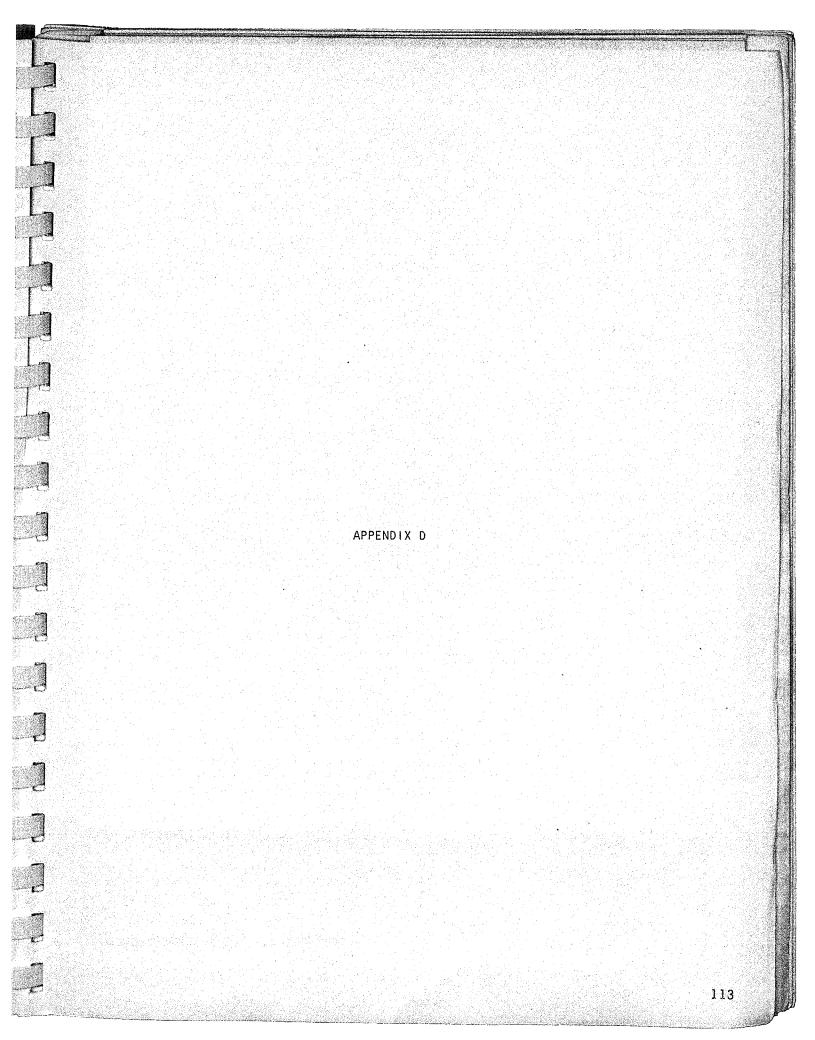
Coatesville Chester County Lukens Steel Co. Secondary Fluorides

Modify permit by 6/30/68 to control fluorides in discharge.

Remarks:

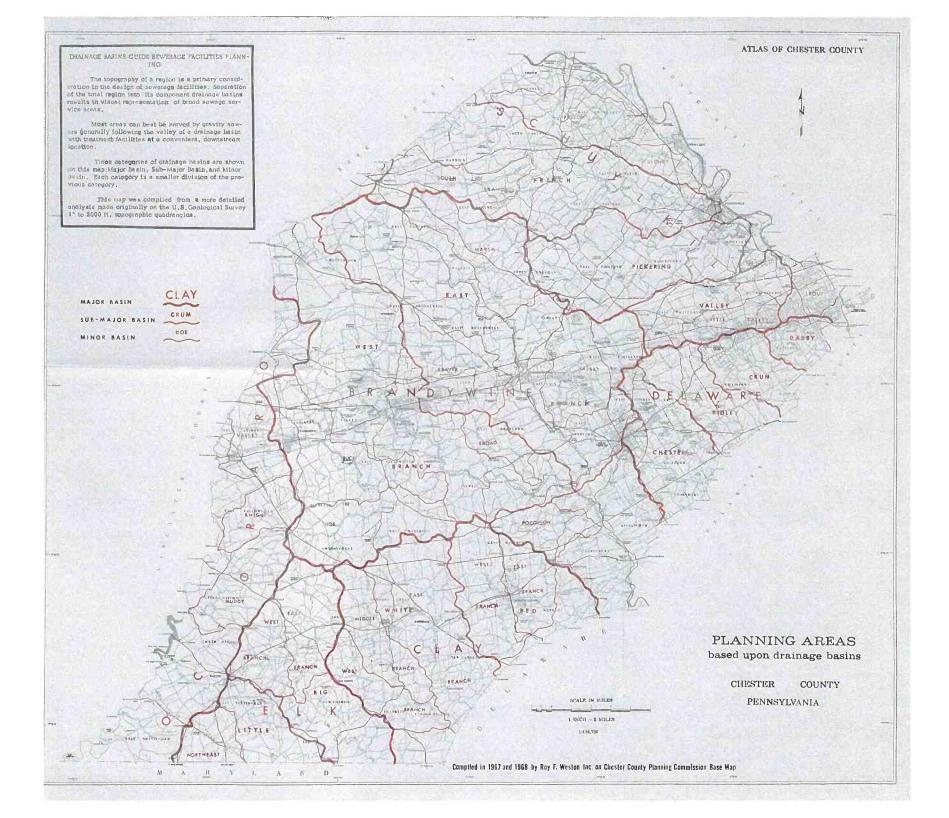
Taste and odor problems are reportedly due to the presence of Actinomycetes in secondary industrial waste treatment work effluents. These treatment works are required to provide, by Sanitary Water Board order. a very high degree (94% BOD Reduction) of treatment. Further study is needed to determine if the Actinomycetes problem, which occurs intermittently at random intervals, can be resolved without adversely affecting the BOD Reduction.

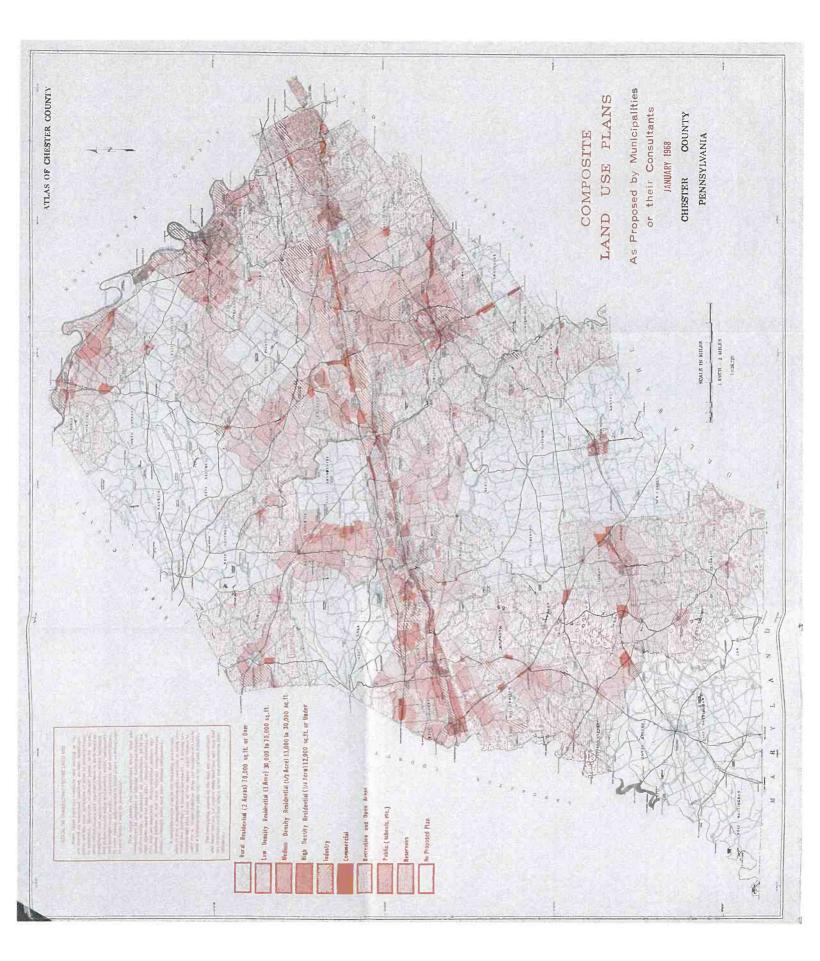
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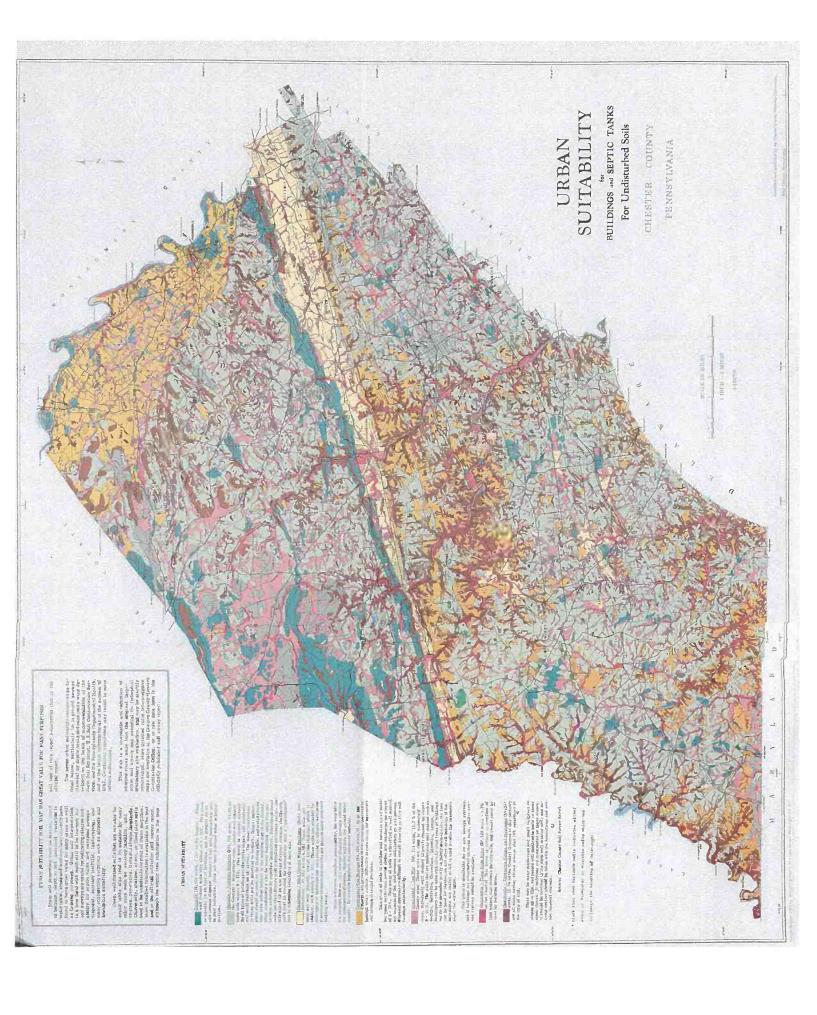


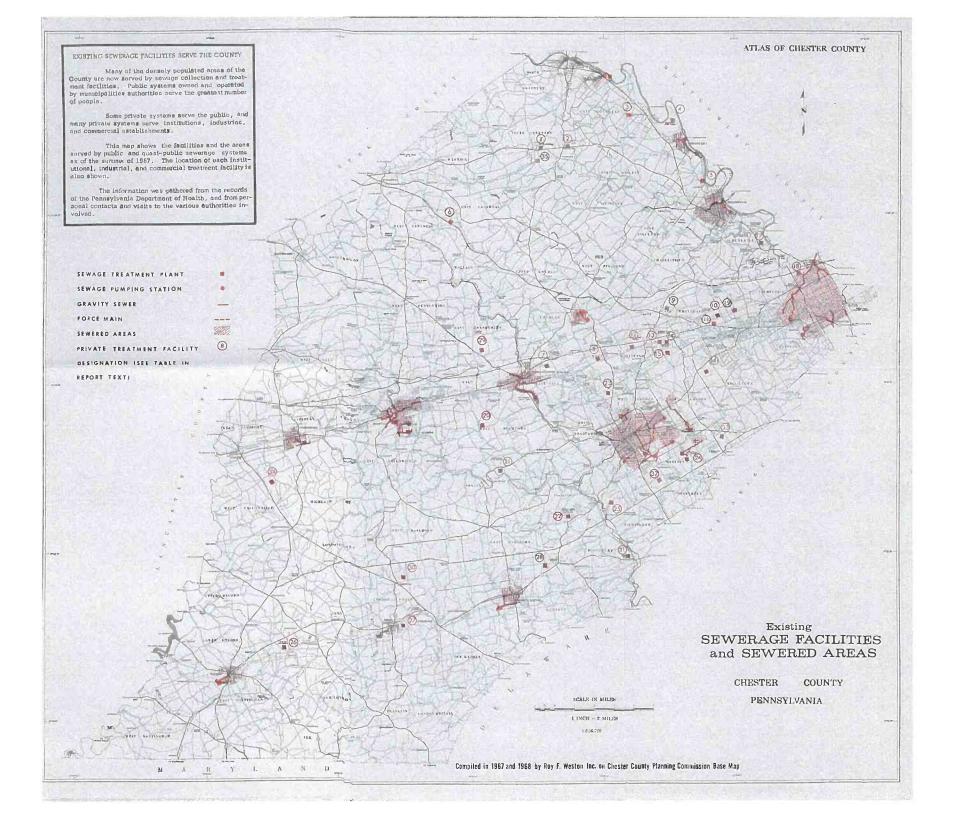
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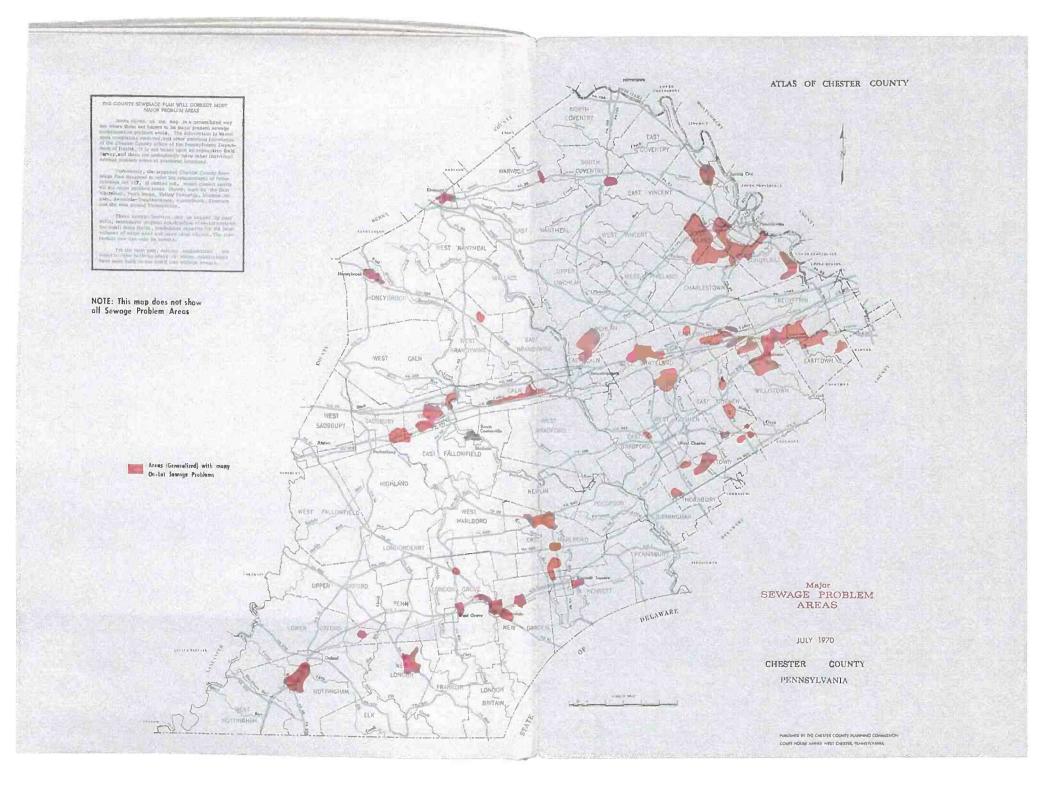
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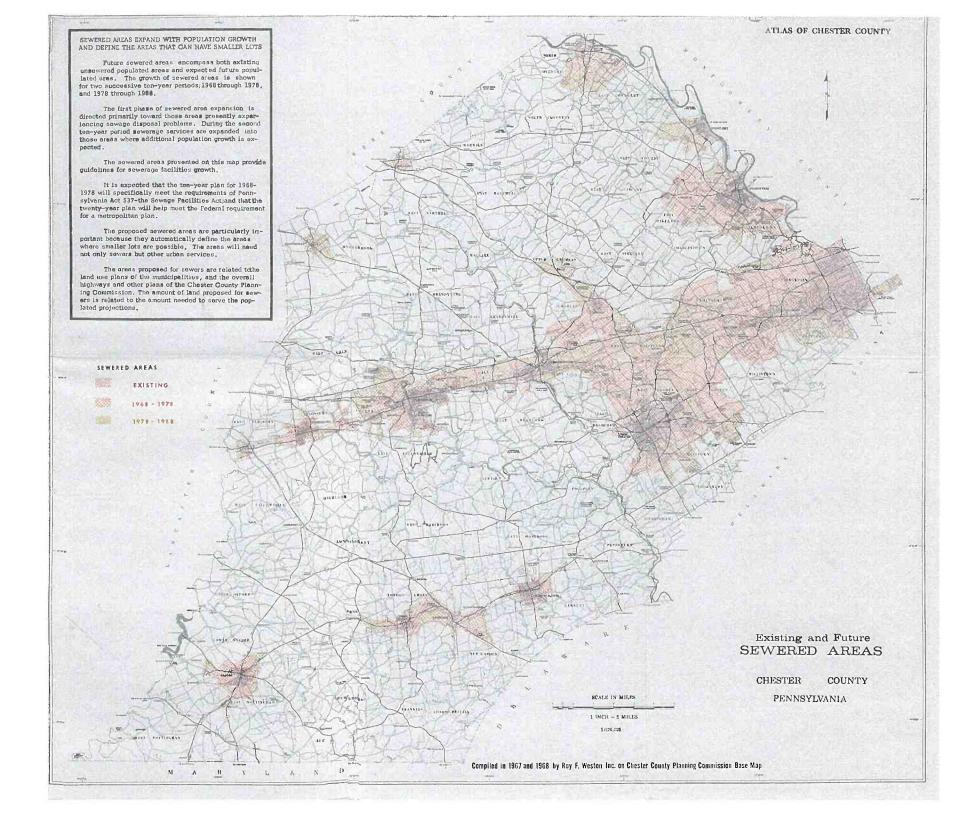


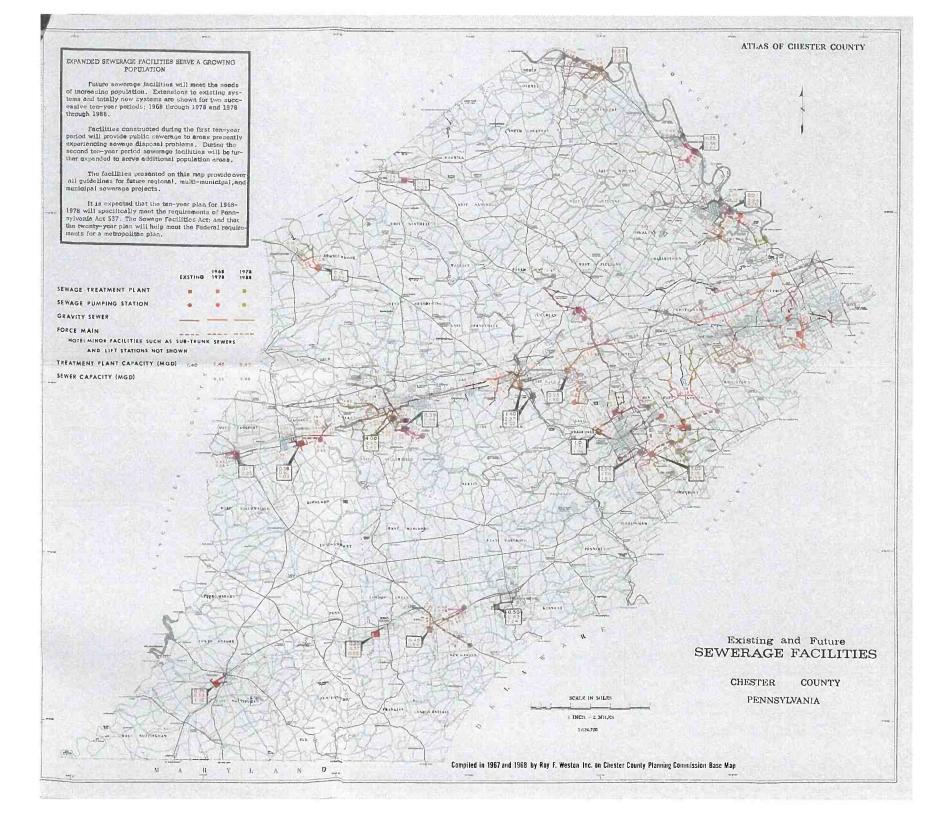


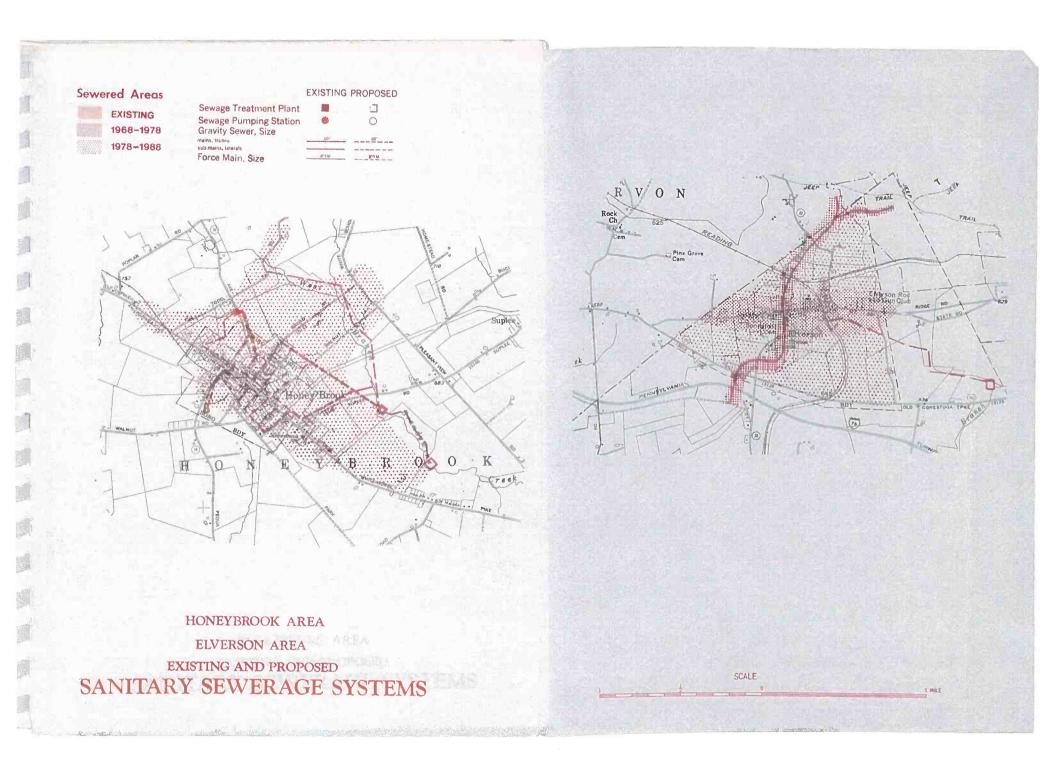


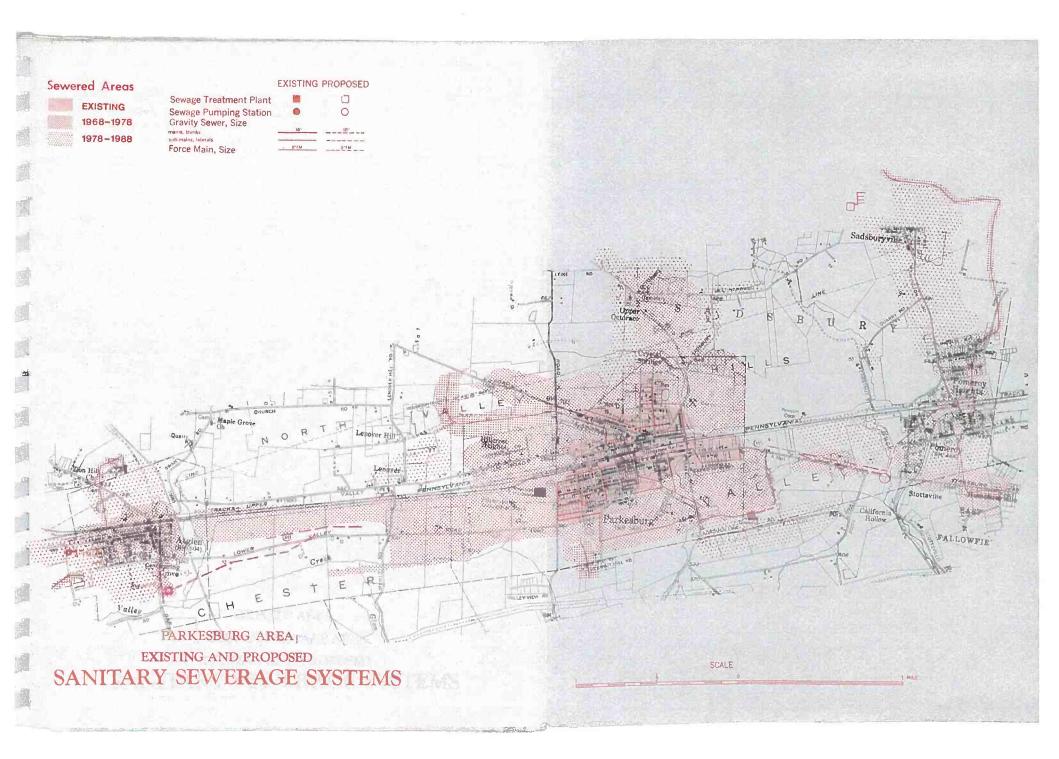


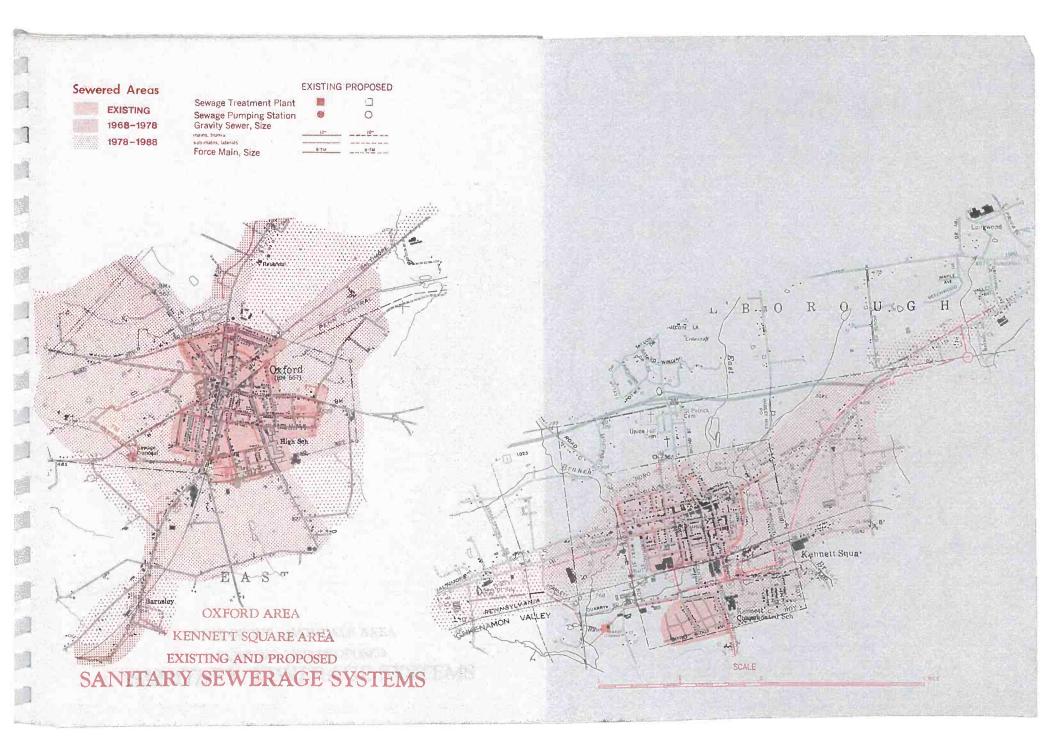


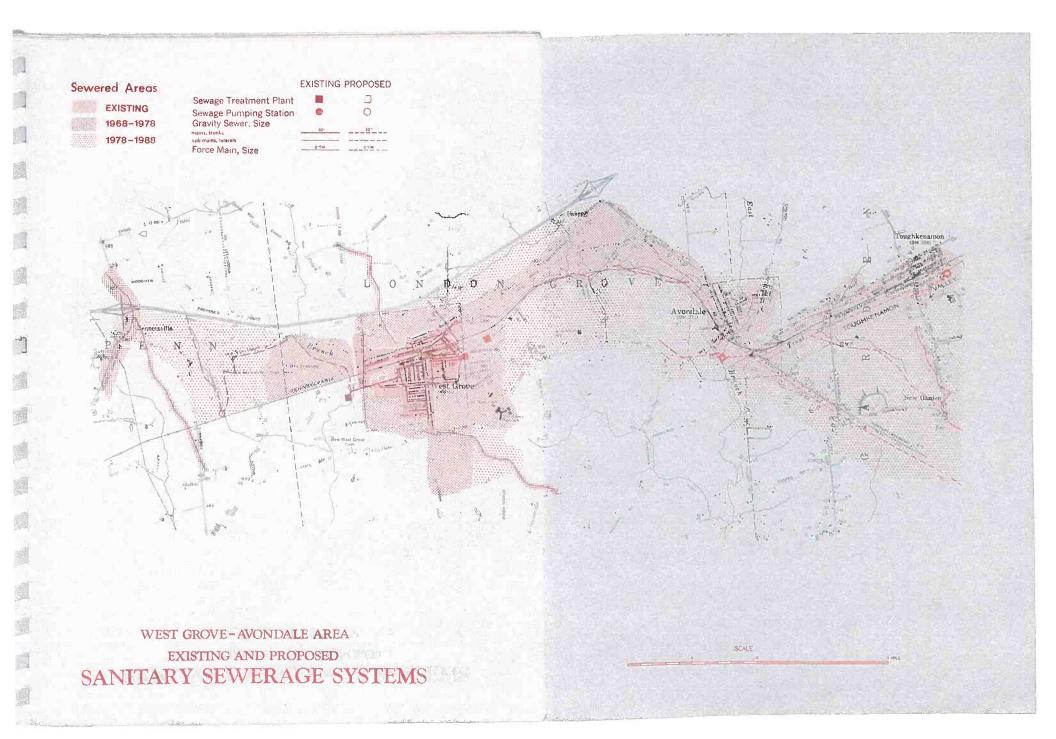


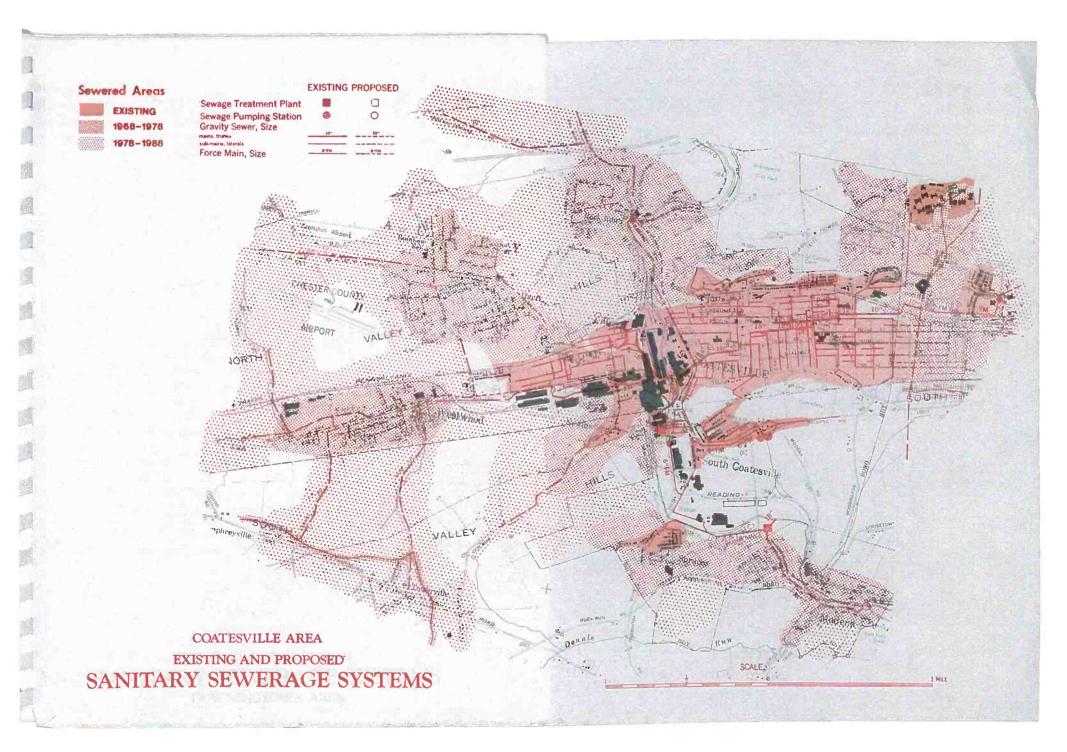


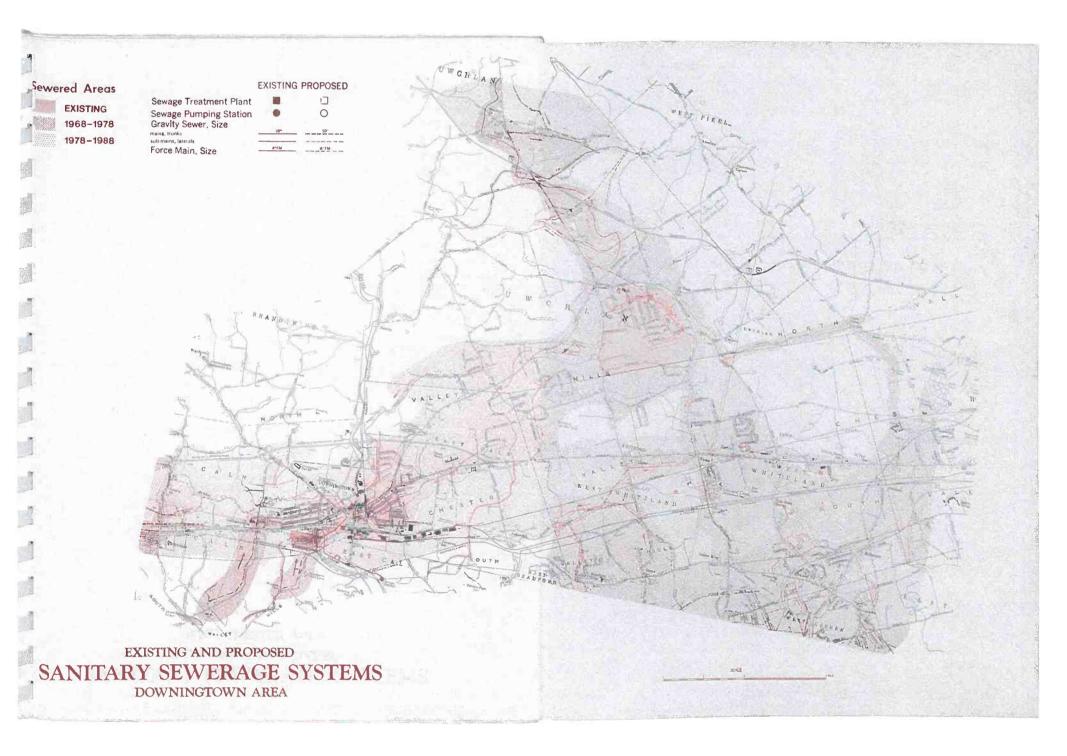


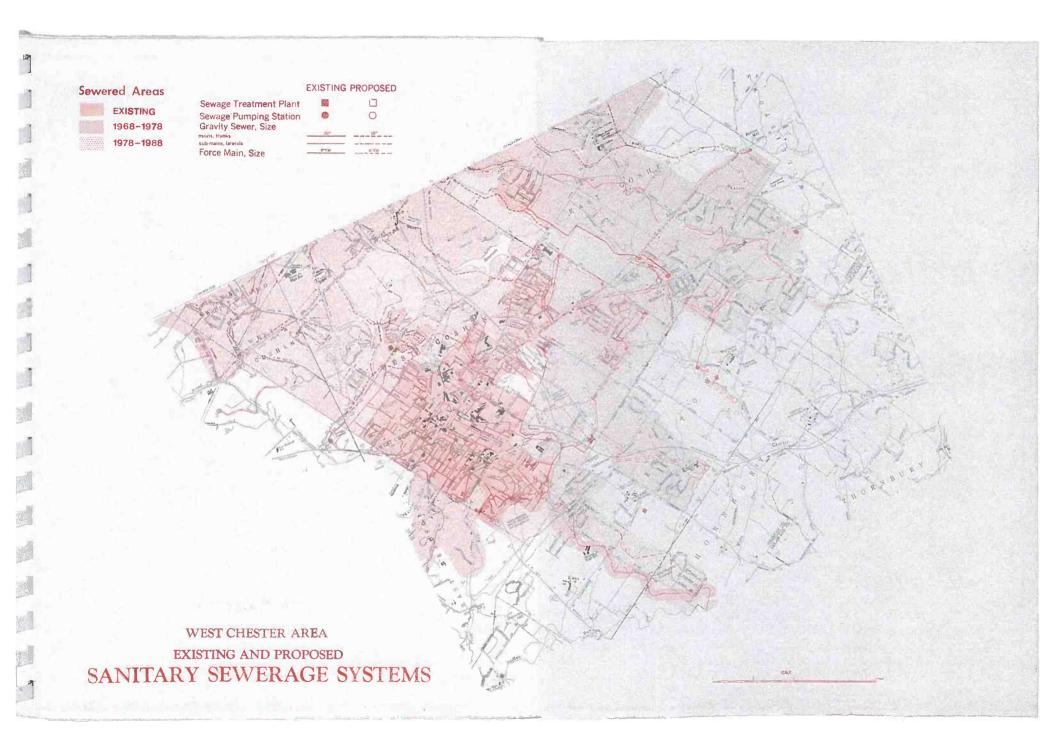


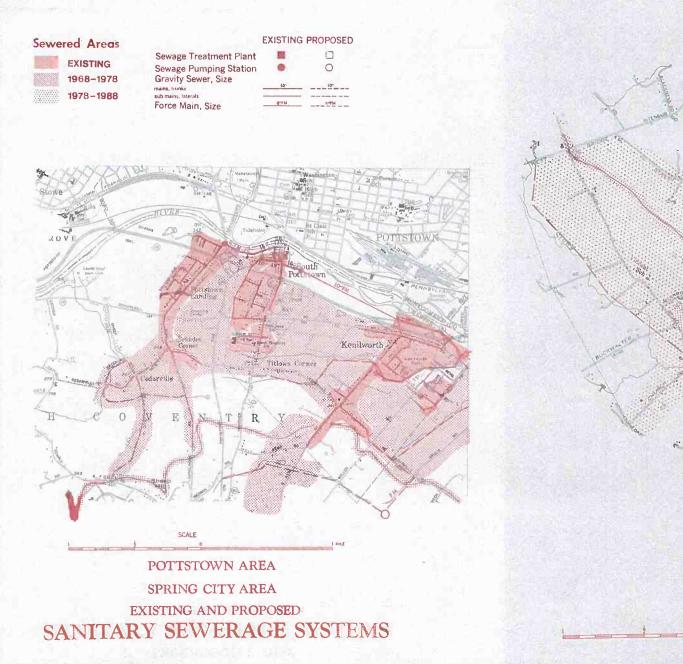




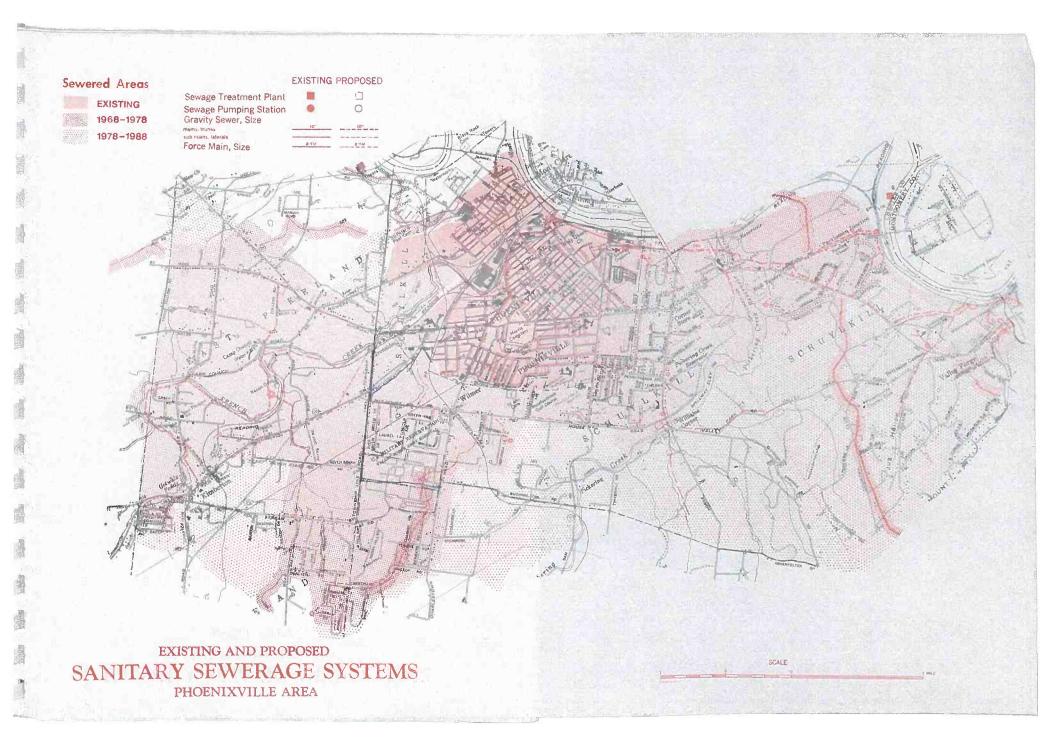


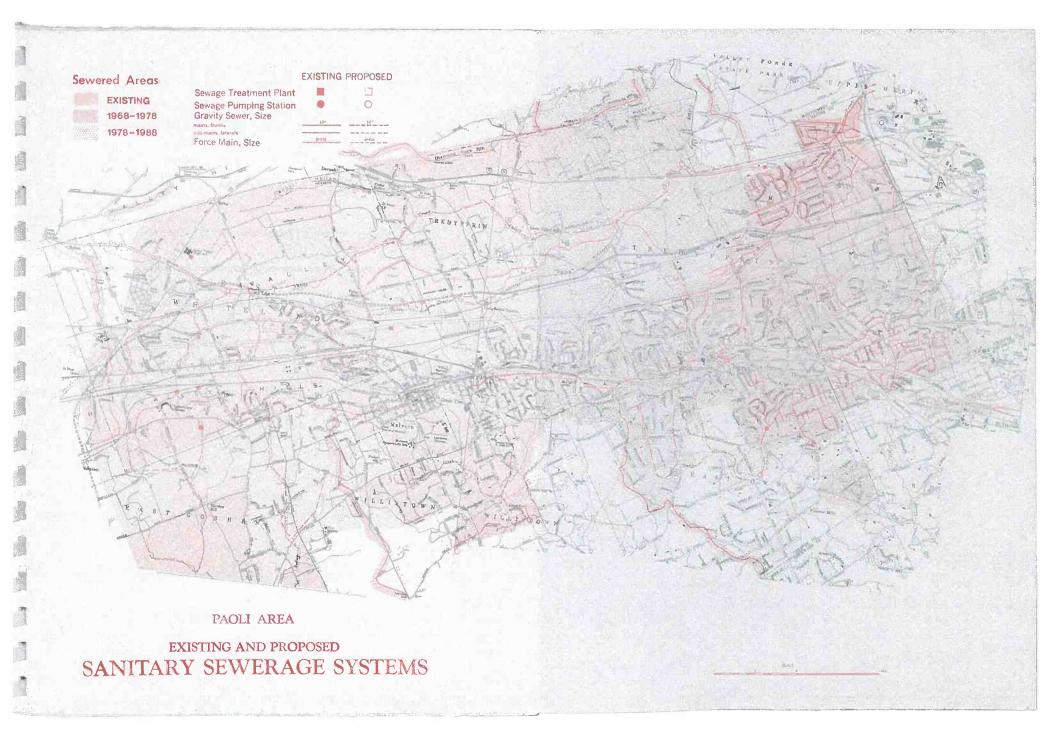












APPENDIX E

Appendix "E" has been added for the purpose of

providing additional information as requested in

letter from the State Director of the PHA on Aug-

ust 19, 1968.

APPENDIX E

I. Letter from State Director, FHA II. Introduction - Background (Revised)

III. Required Materials, Part I

A. A-2

Industry

Existing Financial Institutions (Chart)

Retail Trade

Land Value (1964)

Employment and Growth

Income

Agricultural Economy and Associated Land Use (Includes Charts)

В. А-4

Future Trends in Use of Natural Resources

IV. Correction, Page 83, Paragraph 2

V. Topo Map, Part II, A-2

OFTIONAL FORM NO. 18 MAY USE EDITION SAA FFMR (41 CFR) 101-11.4 UNITED STATES GOVERNMENT

Memorandum

Chester County Comprehensive Sewer Study

County Supervisor, FHA Lancaster, Pennsylvania

DATE: August 19, 1968

AUG 21 1968

117

FROM : State Director, FHA Harrisburg, Pennsylvania

SUBJECT:

TO

We have reviewed the plan submitted to this office in accordance with State Office Bulletin No. 684 dated July 12, 1967 and wish to make the following comments:

- 1 We cannot locate the topographic map required by Part II, A-2; perhaps this is available in the Flanning Commissioner's office, but it should be reproduced and made a part of the comprehensive sewer plan.
- 2 Part I, A-2, under the required materials. It is our opinion that the economic condition has a considerable effect upon the comprehensive plan. We are sure that this was taken into consideration when the plan was prepared, however, it is our opinion that considerable more detail should be included in this portion of the report. Some of the items would be the report of personal income, financial institutions in existence, real estate trends, manufacturing and commercial establishments, employment and growth area. The agriculture land use patterns and trends is covered on Page 31 of your report. It is our opinion more detail should be included under the above paragraphs as to the 1964 agriculture statistics. Information on agriculture relative to the number of farms, types of farming and gross income, percentage of tenants on farms and other information that would be important in the next 10 or 20 years as to the shift of this agriculture area to non-agriculture use. This also would reflect the needs for sewers in these rural areas that may not be now developed.
- 3 Also under Part I, A-4, the information on natural resources where the development will take place should be discussed in more detail as it relates to the future planning and development of specific areas.

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

County Supervisor, FHA Lancaster, Pennsylvania August 19, 1968 Chester Co. Comprehensive Sewer Study

4 - It is our suggestion that the statement that appears in the introduction of the report, discussing the requirements of Act 537 be eliminated. Our discussions with the Pa. Department of Health relative to comprehensive planning requirements by their agency in 1966 appeared to be fully met by the contract executed between the Planning Commission and the consultant. It is our opinion that this statement does not contribute to this report and may create a violation of the grant agreement with this agency.

-2-

5 - Information presented on Page 83, paragraph 2 which discussed the grants that may be available from the State under Act 13(Community Facilities Act), perhaps should be updated. Information received from the Pa. Department of Commerce that the grants cannot exceed 25% of the project costs or \$50,000 (whichever is lesser) as a maximum grant. The funds are for the purpose of assisting eligible communities towards the construction of collection lines for a sewer project but does not include interceptors or treatment plants. The funds are also available for the construction of a domestic water system in its entirety.

We recommend that the report be submitted to the Pennsylvania Department of Health for their consideration as to meeting the requirements of Act 537. No written evidence has been included to indicate that this plan is or is not acceptable.

We appreciate having the opportunity of reviewing this report and are hopeful that the comments made in this memo will be considered by the Planning Commission before adopting the County plan as the final report. It is suggested that the Planning Commission meet with you and discuss the comments made and then call a general meeting with the various agencies, who are concerned with the final report.

When you receive a copy of the Resolution passed by the Planning Commission approving the final payment of the contract, you may authorize payment, if you are satisfied that all comments made in this memo) have been met.

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Raymond J. Kezstetter State Director

CHM:fbb

cc: District Supv., FHA Lancaster, Pa.

II. INTRODUCTION

Background

In an Agreement executed 22 June 1966, and under a grant from the Farmers Home Administration, the Chester County Planning Commission retained and authorized ROY F. WESTON to prepare an official Comprehensive Plan for municipal, or public-type, domestic sewerage systems which should be developed, in addition to present systems, to adequately serve the present and probable future needs of Chester County.

The Department of Health, as well as many of the local officials consequently urged the County to accept responsibility for preparing the "Official Plan" required of the (73) municipalities in Chester County. As a result an Addendum to the basic Agreement between the Chester County Planning Commission and ROY F.WESTON, executed 6 April 1967, provided for an increase in the scope of work.

In a subsequent "Guide for Official Plan Review" adopted by the sewage Advisory Committee on 4 December 1967:

- (a.) It was recognized that public sewerage systems can best be designed to serve watersheds which cross municipal boundaries, and
- (b.) Area-wide comprehensive planning, and submission of an area-wide Official Plan by more than one municipality, was encouraged.

III. REQUIRED MATERIALS, PART I

A-2 Industry

Chester County Industrial Growth Continues Steady Rise

Chester County, the western-most and least industrial of the five (Pennsylvania) county Philadelphia SMSA, has since 1963, been steadily increasing its industrial employment with the last reporting year showing the largest growth of the period -- nearly 3,000 additional jobs. This brought the total number of industrial workers to 32,677 for 1967 (Figure 1.) During the year the number of establishments located in the county has grown from 322 to 356.

Largest industry, in terms of employment, was the primary metal group whose 13 companies employed nearly one quarter (23 1/2)percent, or (7,676) of the county's industrial workers, some 250 fewer than the previous year. Within this group were 3 stee mills that reported 6,606 workers, the largest single industry in the county. Second in total employment was another heavy industry group, non-electrical machinery (SIC 35), with 17 12/ percent (5,715) of the industrially employed working in the 53 companies in this group, including 3,688 people in two computer firms. This group, incidentally, added 1,030 jobs during the year for the next-to-largest increase of any group. Largest increase was in yet another of the heavy industrial groups, SIC 36, electrical machinery, equipment, and supplies, where 1,218 new jobs raised employment for the group to 2,779, almost 9 percent of the county total. With 1,970 job holders in SIC 34, up 237 during the year, and 922 in SIC 37, down 79, the importance of heavy industry to the county can be seen, since total employment by the groups in this category represent about 58 percent of the industrial workers in the county. Two other general groups, the food processors (SIC 20) and the chemical industry (SIC 28) also employ significant percentages of the total: the former almost 10 percent, with 3,054 workers in 43 factories, including 1,297 in 15 canning plants; the latter about 8 percent, with 2,642 employees, half of which work in 2 pharmaceutical firms among the 27 establishments in the group.

Wages and Salaries Up 10% Over 1966

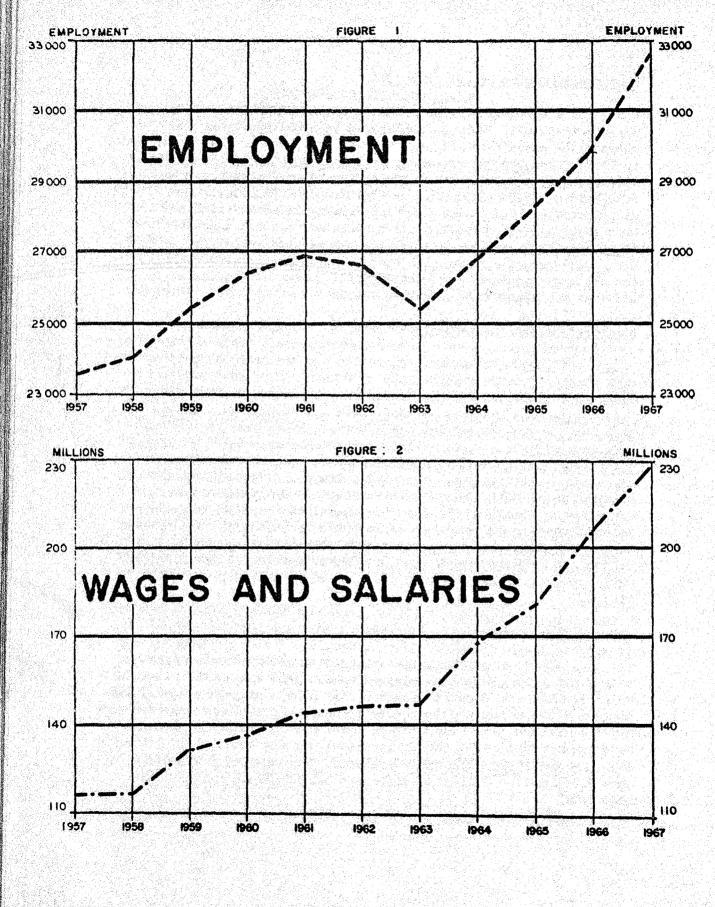
Wages and salaries, with the largest dollar increase in the past (Figure 2). About 27 percent, or \$61.6 million, was provided by the primary metal group, and \$48.5 million, or 21 percent; up \$8.7 million, by the non-electrical machinery industry. Both are several percentage points above their share of employment, and reflect the high skills required of workers in these industries. The same increase, \$8.7 million, was reported by the electrical machinery industry, and virtually doubles the previous year's payroll. These substantially larger payrolls, of course, reflect the more than 1,000 new jobs provided by these industries during the year. The chemical and food industries, with \$17.2 and \$15.8 millions in wages and salaries, follow next in order.

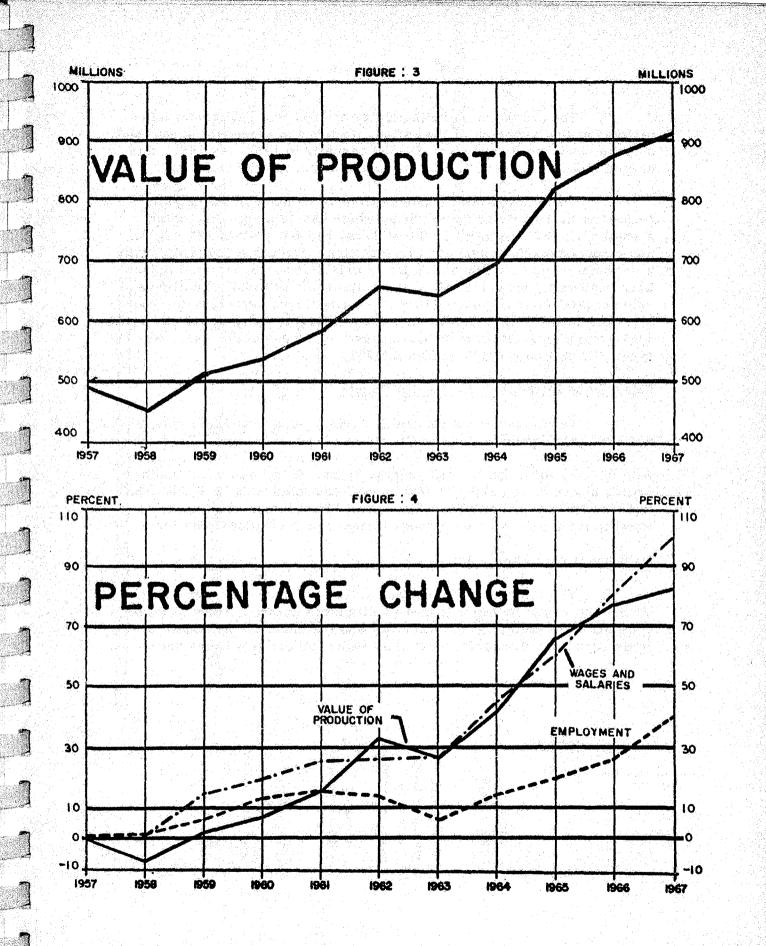
Industrial Production Up \$28 1/2 Million

With the substantial gains shown by the other indicators, it is almost axiomatic that the value of the county's industrial production should be greater than during the preceding year. This was the fact, with the increase reported at \$28 1/2 million, pushing the total to a 10-year high of (\$901,525,000 (Figure 3). The primary metal group, of course, produced the largest dollar amount, \$209 million, or 23 percent of the total. This figure was about \$14 milliom below the previous year's amount, a condition that was general throughout the industry during 1967. The chemical industry also reported a lower production value, but, at \$162.1 million, it still represented 18 percent second largest in the county. Offsetting these reductions in value were the non-electrical machinery group, up almost \$17 million, to \$108.3 million; the food processors, up about \$13 million to \$84.8 million, and the electrical machinery manufacturers, at \$33.6 million, up over \$7 million.

Value of Production Up 83% Over 1957

The final graph outlines the percentage changes and relationship of the various indicators over a 10-year span, using 1957 as a base year. Employment, during that period, has increased by 38 percent, adding over 9,000 workers to the county's industrial establishments. Reflecting this increase, and a higher wage scale as well, industrial payrolls have almost doubled (99 percent increase), thereby adding \$114 million to the income of the industrially employed. The value of production also grew substantially -- about 83 percent -- some \$408 million above the base year.





The number of establishments, at 356, was 110 greater than reported at the beginning of the period. In terms of personal income, the average employee earned about \$4,850 annually in 1957. By 1967, this amount stood at almost \$7,000, one of the highest in the state.

There are several concentrations of industry in the county. Largest is in the City of Coatesville, which has 15 plants, including a steel mill, that employed 5,911 workers, had a payroll of \$47 million, and produced goods valued at \$137.9 million. Tredyffrin Township, with a computer equipment firm among its 14 establishments, reported industrial employment as 4,336, with wages and salaries at \$37.3 million and value of production of \$80.8 million. Four boroughs, Phoenixville, Downingtown, Spring City, and West Chester, all had between 2,450 and 3,025 workers in plants within their boundaries, whose production value was between \$60 million and \$95 million in 1967.

Retail Trade Increasings in Chester County

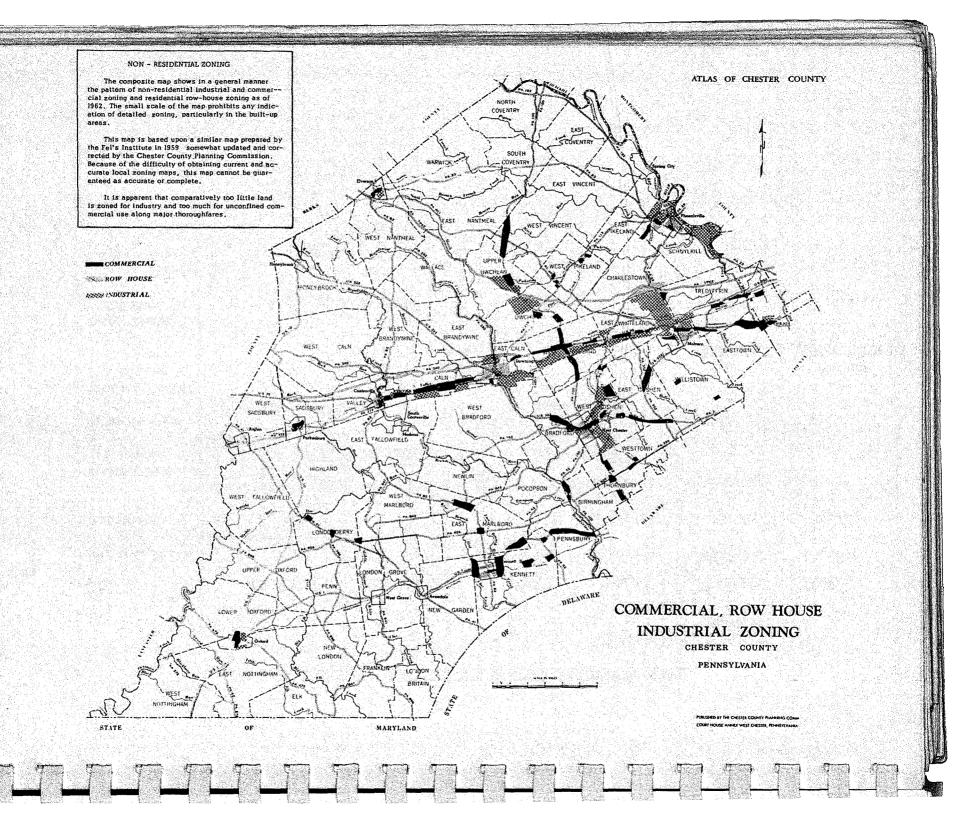
Based upon employment and sales figures from 1962, and 1963, and 1967 retail trade in Chester County has been increasing. Employment in retail trade has increased 25% between 1962 and 1967; this compares with the 10% value for the Philadelphia SMSA. Retail sales in Chester County amounted to \$326,587,000 in 1967 compared with \$259,097,000 in 1963, an increase of 21% in four years. This percentage increase is equal to the retail sales percentage increase of the Philadelphia SMSA.

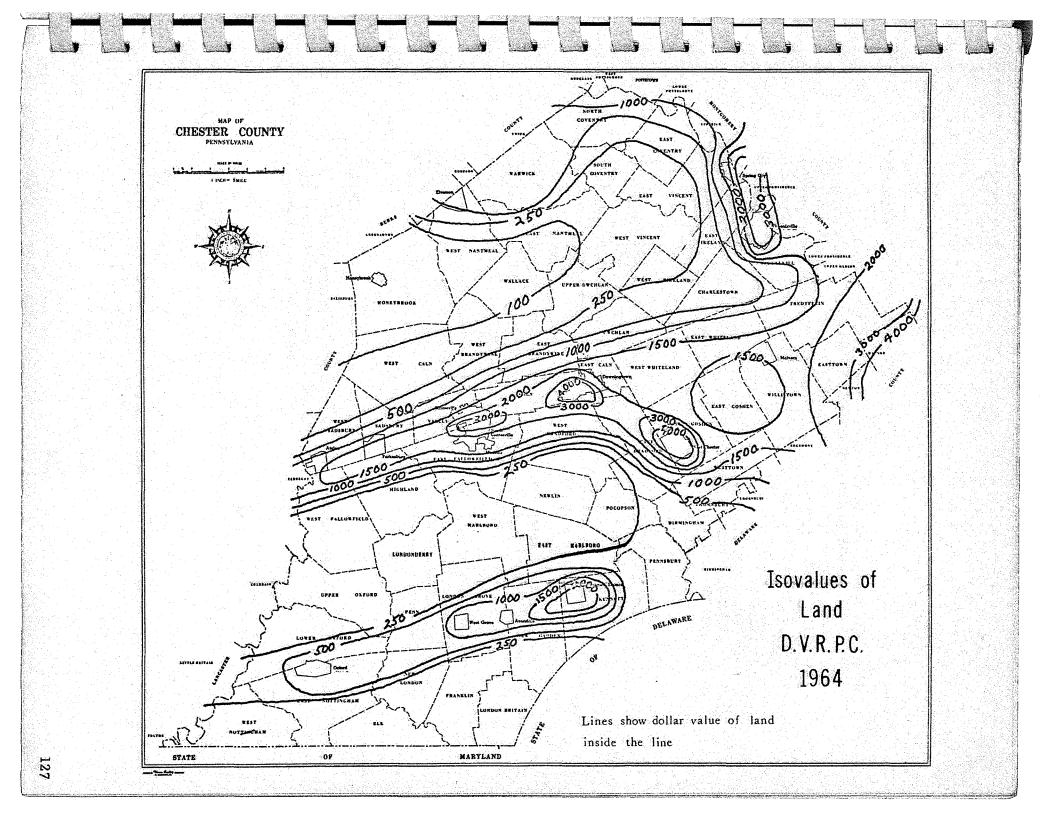
Location of Retail Trade Activity

The location of retail trade activity is centered in the urban places and along the major highways within the County. There is close correlation between this retail activity and the enclosed map showing areas zoned for commercial as well as industrial and row house uses.

EXISTING FINANCIAL INSTITUTIONS IN CHESTER COUNTY (1966)

				<u>In Thousan</u>	<u>ds of Dollars</u> Deposits	
<u></u>	<u>Number</u>	No of Members	<u>Capital</u>	<u>Surplus</u>		
National Banks	9		\$ 3,157	\$10,981	\$80,124	\$84,030
State Banks	3		935	2,565	19,328	39,559
Federal Savings & Loans	4	26,553		s <u>ets</u> 4,104		
State Savings & Loans Federal Credit & Unions	19 17	27,665	\$41,251			Amount
				<u>loans</u>	Reserves	Share Accounts
State Credit Unions	4	12,954	\$ 8,490	\$6,201	\$412	\$7,418





Table

Manufacturing Employment Change

	<u>1962</u>	<u>1966</u>	<u> 1967 </u>
Total			
Products	26,619	29,752	32,677
Food & Kindred	3,851	3,070	3,054
Textile Mills	703	615	590
Apparel & Related	996	1,254	1,327
Lumber & Wood	144	143	141
Furniture & Fixtures	288	311	299
Paper & Related	1,709	1,747	1,721
Printing & Publishing	688	841	896
Chemicals	1,760	2,617	2,642
Petroleum - Coal	38	9	38
Stone, Clay & Glass	754	602	850
Rubber & Misc Plastics	516	997	1,101
Primary Metals	6,443	7,930	7,676
Machinery	1,472	1,633	1,970
Elec. Machinery, Equip. &			
Supplies	2,519	1,561	2,779
Transportation Equip.	877	1,101	992
Instrument	340	369	452
Ordinance & Access.	12	75	325
Misc.	259	192	179

Manufacturing Employment Statistics

Between 1962 and 1966 the number of persons employed in the manufacturing industry increased by 3,133 from 26,619 to 29,752. This increase was 12%. The greatest increase, by number took place in the primary metals and machinery industries, with increases of 1,487 and 1,435 respectively. The chemical industry increased the most, when looked at employment by percentage, with 49%.

There were also decreases in employment during the 1962 to 1966 period. The greatest decrease was in the electrical machinery, equipment and supplies industries in both numbers (down 958) and percentage (38%).

Employment continued an increase between 1966 and 1967. An increase of 2,925 was realized from 29,752 to 32,677. This was a percent increase of 9%. The industry showing the greatest increase both in numbers and percent of employment growth was the electrical machinery, equipment, and supplies, up 1218 employees or 77% from 1966.

Primary metals, which had the largest increase in numbers between 1962 and 1966, decreased in numbers by 254 between 1966 and 1967, which was the greatest decrease for the period.

For the overall period from 1957 to 1967, except for the years 1961 and 1963 during which there was a decrease in the number of persons employed, there has been a steady growth in manufacturing employment from approximately 23,600 in 1957 to 32,677 in 1967. This County expand, and new companies moved into Chester County.

Income

Distribution of incomes in the County is not uniform. In 1960 and certainly true today, the higher incomes are found in the eastern municipalities of the County.

This is the combined influence of the Philadelphia - Wilmington metropolitan region. The average median family income in 1960 in the County was \$6600. It is estimated currently that this figure is closer to \$10,000. Agricultural Economy and Land Use Encroachment in Chester County

Chester County is Second in Value of Agricultural Products in Pennsylvania

As the attached statistics indicate, Chester County is Pennsylvania's number two County in overall value of farm products, and number one in Pennsylvania in total receipts for crops and horticultural specialities (including employees, value of land structures and equipment, mushrooms and rose bushes). Of interest is the high yield per acre in wheat corn.

Despite the drastic reduction in the total number of acres of cropland in Chester County from 358,000 in 1949 to 269,000 in 1964 total production has not dropped proportionately, because of the increase in yield. Much of this loss in our County is not due to direct urban encroachment. Your Southeastern Pennsylvania Region has gained over the years in relative value to the rest of the Commonwealth, despite the greater loss to urbanization.

Even in national rankings, Chester County is first in mushrooms; third in nurseries, greenhouses and flowers; approximately 16th in dairy; and 47th in values of all farm products; and in the first 100 out of 3099 counties in several livestock categories.

In terms of actual production between 1957 and 1967, according to the annual reports of the Pennsylvania Crop Reporting Service, Chester County gained in both acreage and production of corn, wheat, potatoes and held its 1957 production despite loss of acreage in barley, hay and alfalfa. In livestock categories in the number of hogs increased while other categories (sheep, chickens) decreased. In the important dairy industry the number of milk cows cropped substantially from 44,000 in 1957 to 32,600 in 1967, yet total milk production remained approximately level.

Although agriculture receipts have not increased as rapidly as many other types of economic statistics, about \$55 million in total agricultural receipts were reported in 1967. This sum turns over several times in the economy and is still significant.

We have made considerable use of the basic soil survey completing among other maps, the mapping of agricultural suitability using the same categories as used in individual farm planning. Chester County 5022 acres (or 1%) of the County is in the rare Class I Cropland, but 255,529 or 52.5% of the total acres is in the valuable Class II Cropland, and 57,993 or about 12% in the still useable Class III Cropland. Thus 65.5% or nearly two thirds of Chester County is inherently cropland. <u>Present Pattern of Urban Growth Undesirable From Both Good Planning</u> and Agricultural Viewpoint

Since at least the end of World War II, urban growth, has been relatively freed from the restrictions of sewer and water lines, public transit, schools and public services that have always shaped growth.

Seemingly freed from these restraints, and spurred by public policies, such as the Government insured mortgage insurance and automobile, urban development has tended to sprawl over the lanscape, wherever a developer can get relatively low-cost land.

This pattern of development has been or is being documented in detail, among many other places in the Bucks County Urban Fringe Study. Its adverse influences have been documented in many other publications and will not be repeated here.

Most planning agencies believe that the present pattern of sprawl and spread city is undesirable from the viewpoint of both the public interest, and the best needs of most of the homebuyers seeking homes that apparently offer a temporary escape from urbanization.

Even a few homes built along the existing road frontage have often been enough to break up an efficient pattern of large scale farming increasingly necessary for agricultural efficiency and many soon develop public protests against the smells, and chemical spraying of farming.

From the viewpoint of the public economy, scattered low density development is costly to service with postal delivery, solid waste collections, telephone, and particularly school buses. Most of all, public water and sewerage is sually not feasible. On a large scale area surplus water supply may be jeopardized as the recent Upper East Branch Brandywine Study in Chester County documented.

When the loss of agriculture land is coupled with other adverse consequences, of which we have perhaps more understanding, it would certainly seem to me that the loss of our farmland is a serious problems.

Prime Method of Preserving Agricultural Lands Is By Encouraging More Compact and Better Planned Urban Development

Much of the discussion of the agricultural land preservation tends to emphasize ways to discourage farmers from selling via means of large lot zoning; purchase, donation, or condemnation of development rights; special tax assessments; and efforts to direct highway and other services away from agricultural land. All these and probably other techniques have value; but only limited value when used alone.

It seems that the prime methods that must be used in attempting to save agricultural lands are to promote a better planned, and more compact pattern of urban growth that would take up less space, and proceed in a more orderly way, so that pressure is automatically removed or lessened from the agricultural lands. Persons who are living in compact development are not seriously encroaching on agricultural land.

We have had some success primarily through large lot zoning in keeping some lands relatively open and in low density, but little success in encouraging a more desired compact pattern of urban development, where there should be a more compact pattern such as the land adjacent to existing boroughs where municipal services can be provided.

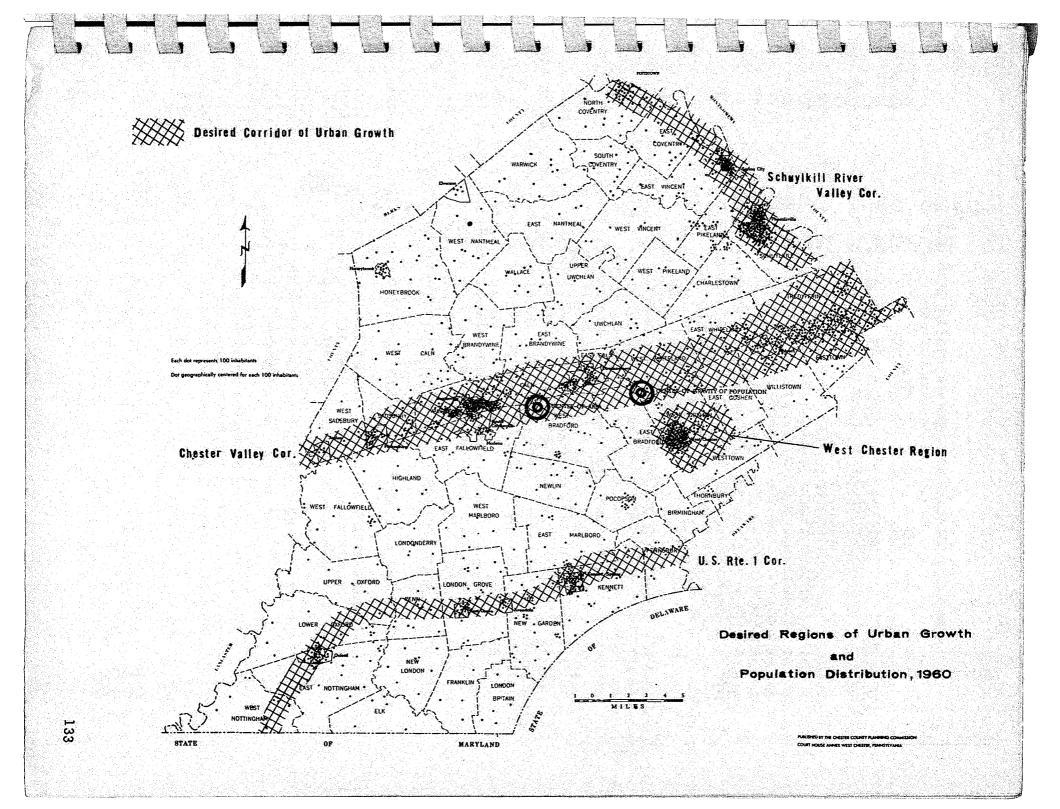
Chester County Encouraging Urban Growth Along Major Corridors Served By Public Lines

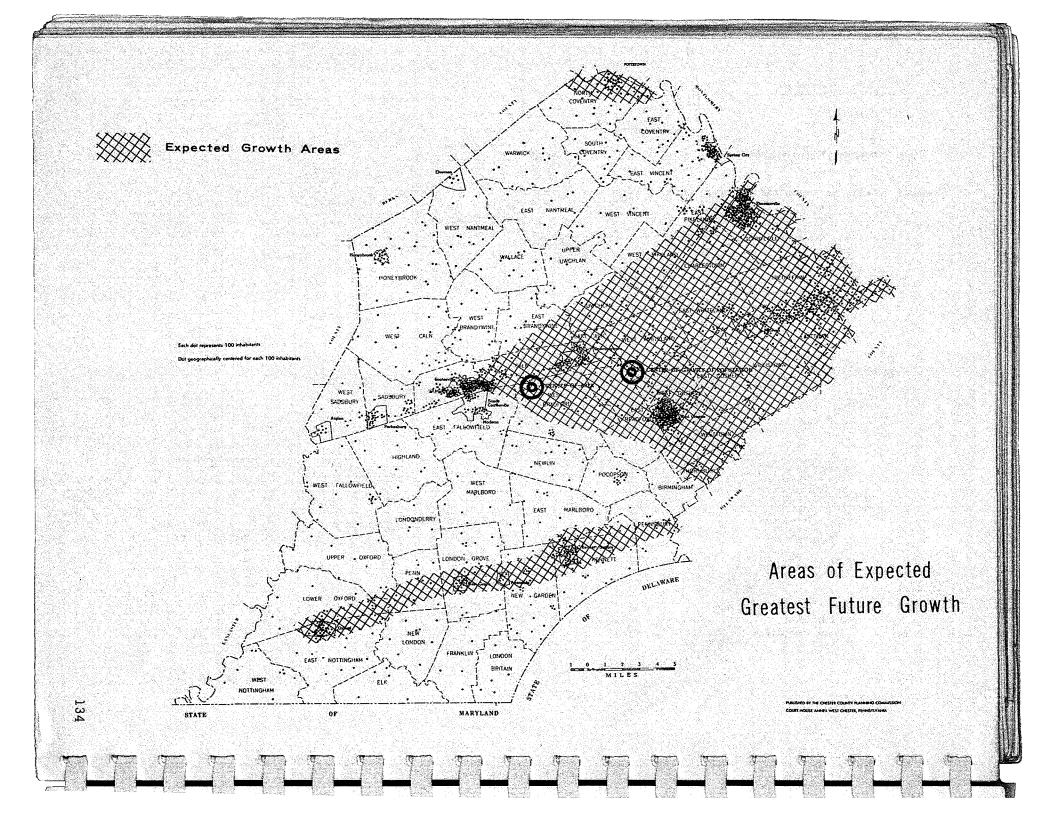
In an attempt to protect open space and preserve farm lands from large population growth, the Planning Commission has adhered to the Modified Corridor Concept for the pattern of County growth. This concept would concentrate the higher densities of population along major highway arteries or along a physiographic feature. How this concept has taken shape in our County can be seen on the accompany map of population distribution.

Developing lines for public sewerage in close conjunction along the desired corridors of urban development, is a prime method of insuring containment of high densities of urbanization and keeping such growth from becoming widely scattered.

If attempts were made to service every rural concentration of population you would have sewer lines networked throughout the County. This would be tremendously expensive and would very possibly create a situation entirely opposite of what is desired. Once sewer lines were extended into rural areas, you would be encouraging the spread of urban development which could easily tap into the new line.

It is believed that for the present, the best method of providing sewerage facilities for these scattered rural concentrations such as Kaolin, Compass, and Cochranville is through private package systems. This elimates extensive sewer lines and thus the possibility of urban spread which they often encourage. - | • • • •





VALUE OF AGRICULTURAL PRODUCTION IN CHESTER COUNTY (In Thousands of Dollars)

			<u>CROPS</u>			
<u>Year</u>	<u>Crops</u>	<u>Veg. &</u> <u>Potatoes</u>	Forest Prod. inclu. Maple	Horticultural Specialties	<u>Fruits</u>	<u>Total All</u> <u>Crops</u>
1962	\$2,091	\$ 920	\$169	\$18,835	\$262	\$ 22,277
1963	1,911	951	153	19,547	250	22,812
1964	1,900	831	123	21,901	247	25;002.
1965	1,564	1,168	141	23,645	287	26,805
1966	2,629	1,097	122	24,916	288	29,052
1967	2,803	1,174	106	26,411	211	30,705
1968	2,822	1,405	90	25,700	228	30,245

<u>Year</u>	<u>Meat</u> <u>Animals</u>	<u>Dairy</u> Products	Poultry Products	<u>Misc.Livestock</u> <u>Products</u>	<u>Total Live-</u> Stock & Prod.
1962	\$5,046	\$14,272	\$3,306	\$212	\$22,836
1963	5,325	14,330	3,131	247	23,033
1964	4,054	14,081	2,700	247	21,082
1965	4,821	14,706	2,780	269	22,576
1966	5,989*	14,070	2,019		22,078
1967	6,650*	15,300	1,970		23,920
1968	6,168*	16,234	1,769		24,171

* Includes Misc. Livestock Prod.

STATISTICS FOR VARIOUS CROPS GROWN IN CHESTER COUNTY

<u>Year</u>	<u>_Grain</u>	Acreage Harvested	Production Yield
1962	Wheat	13,600	435,200 (Bush.)
1963	11. Anna 11	14,900	520,000 "
1964	11	16,000	571,200 "
1965	$\left\ \boldsymbol{\theta}^{(1)}_{1} - \boldsymbol{\theta}^{(2)}_{1} \right\ = \left\ \boldsymbol{\theta}^{(1)}_{1} - \boldsymbol{\theta}^{(2)}_{1} - \boldsymbol{\theta}^{(2)}_{1} \right\ = \left\ \boldsymbol{\theta}^{(2)}_{1} - \boldsymbol{\theta}^{(2)}_{1} \right\ $	13,500	549,400 "
1966	Ħ	15,600	682,700 "
1967	H	12,800	463,900 "
1968			

	<u>NUMBER C</u>	<u>OF FARMS IN CI</u>	HESTER COUNTY	2019년 2019년 1월 1931년 1월 1931년 1월 1931년 1월			点) 内一
	<u>All</u> <u>Farms</u>	<u>Livestock</u> <u>Farms</u>	Commercial Dairy Farms	<u>Hog</u> <u>Farms</u>	<u>Sheep</u> <u>Farms</u>	Poultry Farms	
1963	2,415	1,490	910	420	275	825	
1964	2,330	1,440	850	405	300	790	
1965	2,248	1,380	740	350	310	667 [⊭]	Nogeli.
1966	2,240	1,400	655	240	205	360	
1967	2,170	1,350	655	240	200	340	
1968	2,100	1,350	655	240	200	340	

INVENTORY OF LIVESTOCK IN CHESTER COUNTY

	Cattl Beef	e Milk	Hogs	Sheep
1962	15,100	40,500	15,500	6,000
1963	17,300	39,000	13,300	5,300
1964	18,200	36,800	12,500	5,000
1965	22,700	32,800	9,000	4,900
1966	16,800	32,200	14,000	4,000
1967	16,500	32,600	16,000	3,300
1968	14,000	34,100	20,000	4,000

CROP ACREAGE HARVESTED IN CHESTER COUNTY

Field &	Forage Crops	Vegetable Crops (Fresh & Processed
(Acres	Harvested)	(Acres Harvested)
1962	132,530	1,180
1963	134,300	1,260
1964	130,700	1,320
1965	127,400	1,330
1966	127,100	640
1967	128,100	610
1968	122,600	680

	STATISTICS FOR	VARIOUS CROPS GROW	N IN CHESTER COUNTY
<u>Year</u>	<u>Grain</u>	<u>Acreage Harvested</u> -	Production Yield
1962	Corn - Silage	11,200	137,800 (Bush.)
1963		11,200	132,200 "
1964	h	10,500	129,200 "
1965	31	10,800	165,200 "
1966	•	18,900	192,800 "
1967		7,500	138,900 "
1968	i i i i i i i i i i i i i i i i i i i	11,000	157,800 "
<u>Year</u>	<u>Grain</u>	<u>Acreage Harvested</u>	Production Yield_
1962	Corn for Grain	29,600	1,858,900 (Bush.
1963	" " "	31,700	2,098,500 "
1964		32,100	2,076,900 "
1965		35,000	2,905,000 "
1966	H D	25,600	1,623,000 "
1967	u.	32,900	3,290,000 "
1968	i i i i i i i i i i i i i i i i i i i	30,300	2,580,100 "
<u>Year</u>	<u>Grain</u>	<u>Acreage Harvested</u>	Production Yield
1009	Clover,	04 200	24 200 /m>
1962	Timothy,	24,300	34,300 (Tons)
1963	Grasses	21,000	30,300
1964	for	19,000	01,000
1965	Hay	17,000	01,100
1966		19,600	001000
1967 1968		18,700 16,600	36,400 " 31,200 "
<u>Year</u>	<u>Grain</u>	<u>Acreage Harvested</u>	<u>Production Yield</u>
1962	Barley	10,700	512,500 (Bush.)
1963	ti.	11,000	433,400 "
1964		11,000	612,700 "
te de la factoria de la composición de	하게 하는 귀엽을 가 있었다.	12,700	704,800 "
1965	그는 그는 것은 것이 같은 것이 같은 것이 같다.		
1965 1966		8,300	563,600 "
		지수는 것이 아니는 것 같은 것이 있는 것이 집에서 가지 않는 것이 가지 않는 것이 있는 것이 없는 것이 같이 있는 것이 없다.	그는 것 같은 것 같

<u>Year</u>	<u>Grain</u>	<u>Acreage Harvested</u>	Production Yi	<u>eld</u>
1962	Alfalfa	30,000 -	62,100 (Tons)
1963	&	31,000	64,200	
1964	Hay	29,600	64,200	II .
1965	н. Т	25,000	67,000	.
1966	H .	29,000	72,500	
1967	u u	28,000	84,200	(H)
1968	H	26,500	78,400	n.
<u>Year</u>	<u>Grain</u>	<u>Acreage Harvested</u>	Production Yie	<u>eld</u>
1962	Нау	57,500	100,000	(Tons)
1963	н	54,100	97,100	n (
1964	lt -	51,500	98,200	11
1965	н — —	45,500	103,600	- 11
1966	н	52,900	112,400	"
1967	и.	53,400	131,300	
1968	U. State	49,000	120,800	n.
ear	<u>Grain</u>	Acreage Harvested	Production Yie	<u>əld</u>
1962	Potatoes	800	136,000	(cwt.)
1963	11	700	140,000	
1964	U	1,400	247,800	
1965		1,200	252,000	1
1966	0	1,700	255,000	H
1967	U State	4,200	24,300	II
1968	0	2,040	459,000) (1)

STATISTICS FOR VARIOUS CROPS GROWN IN CHESTER COUNTY

Source: Agric. Statistics Data Source

Pennsylvania Crop & Reports of Livestock Annual Reports 1962 thru 1968 Pennsylvania Department of Agric.

CHESTER COUNTY and PENNSYLVANIA STATISTICS prepared by the Chester County Extension Service - 1968 by compiling and averaging available census data (arrows indicate trends)

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Chester County	<u>Pennsylvania</u>
Area and Land Use		
Total acres	486,400	28,804,480
% in farms 🔒	55	38
% in harvested cropland +	26	16
Population		
Total 🖡	234,000	11,500,000
Rural non farm 🔹	100,000 (45%)	2,430,000 (21%)
Rural farm 🔸	9,000 (4%)	319,000 ( 3%)
Farm workers 🔸	3,600 (1.5%)	140,000 (1.2%
Farm Characteristics	영화 실제 또는 관계되었다. 기관 중 <u>중 중</u> 영화 가지	
No. farms 🔸	2,200	77,000
% commercial ("full time")	80	65
% owner-operated	<b>6</b> Ď	72
Ave. size (A.) 🔺	132	160
Ave. farm real estate: value (\$) 🔹	79,000	37,000
Type of farms:		이 것은 사람은 것을 가지 않는다. 것 같은 이 가지 <u>있는 것을 하는 것</u>
dairy	800	27,000
nurseries, mushroom and greenhouses	540	3,700
livestock	160	7,000
poultry	50	4,700
crops, fruits and vegetables	300	10,000
general miscellaneous	350	24,600
Weather Pattern - Chester County - 1967	a an taon an taon an taon an An taon an taon an taon an taon	
Length of freeze-free season - 200 days.		
Annual rainfall - 43 inches		
Growing season rainfall (April-September) - 26 inches	S	
Snowfall – 54 inches	en an an Anna an Anna Anna Anna Anna Anna	
Pennsylvania Ranking among States:		
First in – mushroom production		
Second in - manufacture of ice cream		
manufacture of condensed whole milk	a ang balang sa	
poultry sales		
sale of roses		
Third in - manufacture of condensed skim milk		
production of cut flowers eggs sold		
Fourth in - grapes produced		
Fifth in - milk produced and sold	and the second second second	
production of maple syrup	and a second second Second second second Second second	$\left  \left( \left  $
no. of chicken and turkey hatcheries		
any we wanny that we want the start approval and		

op Production - Chester County		Yield/	Ά.	<u>Sales (\$)</u>	<u>% of total</u>	-19
	Acres	Ave.	Goal			
Horticultural specialties (ornamer		oms):		- 26,411,000	47.9	
Mushrooms - about 45 million						e
(Pa. produces 60% of U.S.	production al	bout $1/2$ of w	hich comes fro	om the county)		<u>n</u>
Nursery Crops	700					100
Greenhouse Crops (flowers)						
Field Crops: Hay Crops	53,000			- 2,803,000	5.1	(
Alfalfa	28,000	2.5T. 3.0T.	5.0T. 6.0T.			
Clover-timothy	19,000	2.0T.	0.01. 4.0T.			
Silage Crops	~~,~~~	1				
Corn	10,000	20. OT.	30. OT.			Ès-
Grass	4,500	6.0T.	12.0T.			(T
Grain Crops						
Corn	33,000	100 bu.	150 bu.			(FIX)
Wheat	15,500	45 bu,	60 bu.			(
Barley	9,000	70 bu,	100 bu.			
Oats	5,000	50 bu.	80 bu.			
Soybeans Vegetables and petatessi				1 101 000		
Vegetables and potatoes: Potatoes	2,000	350 bu.		- 1,174,000	2.1	
Vegetables	2,000 700	əəv bu.	ovv pu.			,
Tomatoes	100		30.0T.			
Sweet Corn						
Peas						ſ
Tobacco	340	1. OT.	1.5T.	이 가지 않는 것은 것이 같이 있다. 같은 것은 것이 가지 않는 것이 같이 없다.		<b>k</b> -,
Fruits and forest:	یکیو سے بند جا بند شر			- 317,000	0.6	
Apples	55,000 bu.					(3
Peaches	8,000 bu.					Þ
Cherries	1,000 bu.					
Plums						
Pears						
Grapes Strawberries						្រ
Raspberries						
estock Production - Chester Cou	ntv	Production	/hd./vr			
	Head	Ave.	Goal			ſ
Dairy:				- 15,300,000	27.8	ŀ
Milk Cows	32,000	9,000 lb.	15,000 lb.	- 10,000,000	μ	
Calves and heifers	13,000					
Meat Animals:				- 6,650,000	12.0	۲
Beef	16,500					<b>r</b> iñ
Hogs	16,000					ł
Sheep	3,000					
Poultry:				- <b>1,970,0</b> 00	3.6	ſ
Layers	200,000	215 eggs	240 eggs			ŀ
Pullets and Broilers	65,000					
Turkeys	wailable					ſ
Horses: - large, but no figures a vernment payments	Valladie			460 000		F
al Farm Production - Chester Co				<u>450,000</u> \$55,075,000	0.8	
<u> a a an a concron</u> - Onesier Of	runna	그는 말 소문하는 것이다.	2019년 1월 1991년 1월 19 1월 1991년 1월 1991년 1월 1월 1991년 1월	<u></u>	99.9	

### Future Trends In Use Of Natural Resources

#### Water

A-4

With the development of the Marsh Creek Dam and Reservoir Project, the townships of Uwchlan, Upper Uchlan, East Caln, West Whiteland, portions of East Brandywine, East Bradford, West Goshen townships, and the municipalities of Downingtown and West Chester will be on the receiving end of an estimated 22 million gallons daily. This added water supply will make the area guite attractive to industrial development as well as population growth. This fact has been indicated by the Chester County Development Council.

Most of the region that would be served by the new reservoir lines are now served, or are planned for development by 1988, by public sewerage facilities:

Additional major water supply proposals, such as the Icedale Lake in Honeybrook and West Brandywine Townships, and the development of the Mason-Dixon project from the Susquehanna River which would service the Chester Valley Urban Corridor are, at present, far in the future.

#### Limestone and Other Stones

Quarrying limestones and dolomites has been an important industry in the County for years. These operations are naturally centered along the Chester Valley. Nearly all of the active quarrying operations are located in the eastern portion of the Valley in West Whiteland and Tredyffrin Townships. The only growth which is apparent in this industry is the possible expansion of present sites.

The building stone and crushed stone industries in the County are active operations but are not growing. None of the quarrying operations are ones which will cause any great growth or change within the County.

Other natural resources which might be considered of importance for future development in the County would be soils and woodlands. Soils may be viewed in conjunction with trends in agriculture also found in this appendix. Woodlands occupied approximately 96,000 acres or 19% of the County area in 1963. Although there are commercial forestry operations in the County, the majority of woodlands are presently used simply as a means of flood and crosson control. Woodlands in the County are improtant for use as areas of recreational open space.

It would be hoped that Chester County could retain much of its woodlands. This, however, may not be, especially where woodlands are presently located near already urban areas.

IV.

#### Correction Page 83, Paragraph # 2

Under Act No.13, the Community Facilities Act (Harness Racing Bill) the Department of Commerce, Commonwealth of Pennsylvania has been authorized to utilize certain monies occurring to the Commonwealth from harness racing track operations to provide grantsin-aid to qualified sewage facilities projects. The maximum grant under this program cannot exceed twenty-five (25) percent of the project costs or \$50,000 (whichever is lesser) as a maximum grant. Such grants are for the purpose of assisting eligible communities towards the construction of collection lines for a sewer project, but does not include interceptors or treatment plants. The funds also available for the construction of a domestic water system in its entirely. Project funding requests are evaluated on the basis of their impact on both the health and economic strength of the community they are to serve.