

TOWNSHIP OF FALLS
RESOLUTION NO. 04- 18

FALLS TOWNSHIP COMPREHENSIVE PLAN ADOPTION

WHEREAS, the Board of Supervisors of Falls Township has the power to adopt and amend the Comprehensive Plan as a whole or in parts, pursuant to Section 302 of the Municipalities Planning Code, 53 §10302; and

WHEREAS, the Board of Supervisors of Falls Township in compliance with the requirements of law has conducted the requisite public hearings, and requested and/or obtained the comments of Bucks County, contiguous municipalities, and Pennsbury School District; and

WHEREAS, the Board of Supervisors of Falls Township has considered the final draft of the Falls Township Comprehensive Plan, as prepared by E. Van Rieker, and recommended for approval by the Falls Township Planning Commission; and

WHEREAS, the Board of Supervisors of Falls Township desires to implement and adopt the Comprehensive Plan in its final form.

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of the Township of Falls, after public hearing, that the Comprehensive Plan including the Open Space, Existing Institutional and Historic Resources Plan, the Future Land Use Plan, and the Aerial Map is adopted this date by affirmative votes of not less than a majority of all members of the Board of Supervisors.

RESOLVED, this 17th day of August, 2004.

Township of Falls
Board of Supervisors

Attest:

Secretary



Acknowledgments

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Chapter 1

INTRODUCTION

The previous Falls Township Comprehensive Plan was adopted by the Board of Supervisors in August 1992. The following sections from Chapter II are still relevant: Community characteristics; Historical Background; Population and Housing; Natural Features; Community Facilities; and Transportation Facilities. These sections are appended to this report for ready reference.

The Comprehensive Plan Update, 2004 focuses on a report of the significant population and demographic changes based on the data provided by the 2000 Census, finalized by the Bureau of Census in August 2003; the need to address the criteria provided by Act 68 of 2000 which amended the Municipalities Planning Code by providing in Section 301 certain requirements that should be addressed by the municipal Comprehensive Plan; an examination of the regional position of Falls Township and relationship to surrounding municipalities; and a discussion of land uses existing and those which may be proposed by recent amendments or updates of adjoining municipal Comprehensive Plans.

The 1991 Comprehensive Plan was the first plan to consider the future of Falls Township without a viable Fairless Steel Works. This update continues to examine not only the future of Falls without the Fairless Steel Works but also the likelihood that by the year 2013, the current GROWS landfill will be complete and impact fees and compensation paid by the landfill may come to an end. Thus, particular emphasis is placed on a chapter dealing with a financial analysis of Falls and future decisions required to ensure the economic vitality of the Township.

The 1991 Comprehensive Plan studied five areas which are identified below:

- Study Area 1 This area is essentially the Lincoln Highway Corridor and the lands on either side of the highway.
- Study Area 2 This area is the central portion of Falls Township from approximately U.S. Route 13 and Route 1 to the railroad lines running through the southern portion of the Township.
- Study Area 3 This area is the southern portion of the Township from the railroad lines to the Delaware River.

- Study Area 3-A This area encompasses the U.S. Steel Fairless Works site.
- Study Area 4 This area is the Fallsington Village near Tyburn and Trenton Avenues.

The study areas included large portions of the Township which are used and zoned for nonresidential purposes. The current 2004 Comprehensive Plan Update has evaluated the entirety of the Township, including residential and nonresidential neighborhoods, and has provided a series of recommendations in connection therewith.

Falls completed the *Open Space Plan* for Falls Township in 1999. The priorities established in that plan have been identified on the Open Space, Existing Institutional, and Historic Resources Plan prepared as a part of this 2004 Update. It is recommended that after this Comprehensive Plan Update is adopted the Township Open Space Plan should be updated.

In addition, *The History of Falls Township, a 300th Anniversary History*, first printed in 1992 provides an expansive and detailed chronicle of the history of Falls Township. The Comprehensive Plan Committee desired that a fleshed out summary of the Township's history be presented here as well. For a more complete discussion, the reader is invited to consult the more detailed *The History of Falls Township*.

Finally, the 2004 Update has compiled all sub-areas of the Township on individual electronic map files which permit the introduction of all Township property boundaries, varied color formats, and permit changes in scale which will allow for the distribution of the various land use plans to the general public.

Action Statements, Goals, and Objectives

The Falls Township Comprehensive Plan expresses goals, objectives and recommendations which are expected to guide land use decisions and promote conservation of resources through the year 2010.

The goals, policies and recommendations are contained in the various chapters throughout the Comprehensive Plan.

Listed below are action statements which correspond to specific policy topics or planning activities (e.g., land use, transportation, housing, open space preservation, etc.). Many of the items listed in one topic are interrelated and should be coordinated with other elements of the Comprehensive Plan. Each action statement will list a goal which is expressed as a summary of an element of the planning process and then identifies, where appropriate, objectives and recommendations which can be used for decision making.

Future Land Use Map

The Future Land Use Map strives to accurately reflect existing land use patterns and to promote neighborhood preservation, new employment opportunities, recognize and continue historic preservation and acquisition of future open space consistent with the 1999 Falls Township Open Space Plan and current recommendations of the Falls Township Planning Commission.

Goal: Develop a detailed comprehensive map(s) of existing and proposed land uses.

Objectives: Identify significant open space, institutional and historic resources.

Foster an appreciation of the nature of highly developed areas as well as the influence of water resources and River frontage.

Consider new zoning districts to reflect existing land uses and encourage redevelopment or improved measures for regulation of certain specific uses.

Recommendations:

- Prepare electronic maps of existing uses, proposed uses, and aerial photo of Falls Township and surrounding areas.
- Prepare suggested Zoning Map revisions to reflect land use recommendations.
- Visually reflect the significant historical sites, particularly Fallsington Historic Area.
- Continue to preserve valuable open space for natural resources protection and active/passive recreation.

Action:

See rear pockets for these plans prepared in color for improved use and interpretation.

New districts are listed in Chapter 7 and summarized below.

Historic resources are identified on the plan, and a blow up of the Fallsington area is included on the maps in rear pocket.

Identify all High and Moderate Priority Sites from 1999 Township Open Space Plan for future preservation (see maps in rear pocket).

Identify woodland River frontage - an area of approximately 300 acres on the old Fairless Works property - for future open space per Falls Township Planning Commission recommendations.

Housing Plan

Goal: To provide housing options for residents of all ages and income levels.

Objectives:

- Increase housing options for older persons.
- Increase housing options to reflect Township demographics.
- Reduce the potential for significant mobile home expansion.
- Preserve quality of existing residential neighborhoods.

Recommendations:

Action:

- | | |
|--|--|
| • Rezone surplus commercial properties for age 55 plus community. | Adopt an AQRC (Age Qualified Residential Community) District for adults age 55 plus. |
| • Increase potential for quality townhouses - a popular type for young families and seniors. | Include with AQRC (above).
Look at residential in-fill along Lincoln Highway. |
| • Rezone vacant MHP land. | See Future Land Use Map. |

Historic Preservation and Appreciation

Goal: Identify historic resources and help assure preservation.

Recommendations:

Action:

List Fallsington on National Register of Historic Places.

Done.

Emphasize long and rich history of Falls Township.

See Chapter 3 for extensive summary.

Recommendations:

Create plan and inventory of Historic Fallsington.

List and locate historic resources in a conspicuous manner on Existing and Future Land Use Maps.

Action:

See Future Land Use Map.

See Existing Historic Resources and Future Land Use Maps (rear pocket).

Land Use Goals and Objectives

Goals:

Revisit goals established in the 1991 Comprehensive Plan.

Set out goals and objectives of major land use elements of the Comprehensive Plan.

Recommendations:

Revisit goals of previous Comprehensive Plan, restate for reference and evaluation.

Highlight significant transportation proposals.

Continue to acquire open space, natural and historic resources.

Monitor progress of acquisition and preservation of important natural areas.

Identify other priority components for evaluation.

Action:

Summarize recommendations of the five Study Areas from 1991 Comprehensive Plan (see Chapter 6).

See discussion of Falls-Hamilton Bridge and Cross County Rail Line (in Chapter 6).

See listing of high priority properties from the 1999 Open Space Plan and three prominent historic resources.

See status on pages 6-7 and 6-8.

See Chapter 6 for discussion of Housing, Economic Development, Recreation and Falls Township Bicycle/Pedestrian Plan.

Land Use and Plan Implementation

Goal: Develop a strategy to implement objectives from Chapter 6 and recommendations shown on the Future Land Use Plan.

Recommendations:

Consider the demographic characteristics detailed in Chapter 5 and relate to land use recommendations to provide a diversity of residential opportunities of high quality.

Identify specific land use strategies to accomplish the recommendations identified on the Future Land Use Plan.

Action:

Develop a detailed Housing Plan with objectives and recommendations (see Chapter 7).

See list of suggested zoning steps and specific land use recommendations (beginning on page 7-6).

Financial Analysis

Goals: Look at differing financial scenarios for the future.

Relate land use decisions to tax base planning.

Recommendations:

Look at current and future sources of revenues and evaluate impacts on local services and Township residents.

Action:

Try to maintain the already low real estate taxes.

Recommendations:

Add age qualified residential communities to vacant or underutilized commercial lands.

Action:

See Land Use Plan.

Encourage steady expansion/redevelopment of existing commercial and industrial properties.

See discussion on KOIZ, enacted by Ordinance 2004-9 (page 8-11).

Prepare a Financial Analysis chapter with a detailed background study of existing and future options.

See Chapter 8 (and recommendations beginning on page 8-12).

Surrounding Municipalities

Goal: Evaluate land use policies of contiguous municipalities.

Recommendations:

Inventory existing land uses and where available current Comprehensive Plans in Tullytown Borough, Bristol Township, Middletown Township, Lower Makefield Township and Morrisville Borough; and relevant recommendations from the 1993 Bucks County Comprehensive Plan.

Respond to specific recommendations received from adjacent municipalities. Input suggestions into text of Comprehensive Plan.

Action:

See Chapter 9 for detailed inventory.

See letter under date May 24, 2004 from Morrisville Borough (page A-24). Suggestions are found in text of Plan.

Coordinate efforts to improve Oxford Valley/Route 1 interchange, work on drainage and water quality concerns in the Rock Run/Martins Creek subwatershed, and participate in preservation of Five Mile Woods, as suggested in Lower Makefield Township Comprehensive Plan.

Bucks County Comprehensive Plan

Goal: Explore consistency with the 1993 County Comprehensive Plan.

Recommendations:

The County Plan states in part:

“In the Pennsbury area, residential growth is likely to continue, primarily in Lower Makefield Township. As the remaining municipalities are fast approaching build-out for residential development, continued non-residential development in Falls Township may be key to maintaining the overall stability of this area.”

“Since all municipalities in Bucks County have zoning ordinances, this plan has not identified specific locations for future land use in each individual municipality. Therefore, municipalities have the responsibility to assess growth issues, prioritize solutions to growth problems, and use the implementation techniques and activities outlined in this plan to identify and designate growth areas within the municipality.”

Action:

The Falls Township Comprehensive Plan agrees and strives to assess and prioritize growth and redevelopment issues.

See also discussion in Chapter 8, Financial Analysis, dealing with land use considerations, industrial/commercial landfill and KOIZ - Keystone Opportunity Improvement Zone.

Local Water Resources

Goal: Work toward improved stormwater management, both in terms of improved quality of watersheds and controlling runoff using natural means.

Recommendations:

Use “best management” techniques that encourage and sometimes require infiltration of stormwater flows.

Action:

Adopt ordinance requirements consistent with the Delaware River South Model Act 167 Stormwater Management Ordinance (see Chapter 10 for detailed discussion).

Chapter 2

COMMUNITY SETTING AND REGIONAL POSITION

Falls Township is a municipality of 26.56 square miles (including both water and land) located in the Lower Bucks Region of Bucks County. Falls Township is one of the largest municipalities in all of Bucks County. However, a large percentage (over 19%) of the Township consists of water resources - ponds and lakes - and nearly nine miles of municipal boundary is along the Delaware River, which forms the boundary between Pennsylvania and New Jersey. The Township has access to numerous major arterial highways, such as U.S. Route 13 and U.S. Route 1, and via U.S. Route 1 to Interstate Route 95, but none of these cross the Delaware River from Falls Township. Connections to New Jersey, however, are available nearby via U.S. Route 1 at Morrisville to Trenton, the New Jersey Turnpike via the Bristol exit, to Florence at Route 130 and shortly thereafter Route 295 and Bristol Burlington to Burlington City at Route 130 and via U.S. Route 13 south of Bristol at the Bristol-Burlington Toll Bridge.

U.S. Route 13 is a business commuter highway connecting Yardley to the north to Tullytown, Bristol, and Bensalem to the south. U.S. 1 superhighway offers high speed connections to other Bucks County municipalities and Philadelphia, while the Interstate 95 Expressway provides high speed arterial connections to New Jersey and exits at Bristol Township and Bensalem Township at Woodhaven Road and downtown Philadelphia along the Delaware River.

Falls also has regional transportation opportunities using public transit via the SEPTA R-7 rail line. The Township has been identified as the possible future site for the Cross-County Metro Station, situate along U.S. Route 1 just south of Morrisville.

The Township is a member of the Pennsbury School District. Its population in 2000 was 34,865, which has been generally static since 1970. Before 1950, the Township was largely agricultural or sand and gravel mining. The population was 3,540. From 1950 to 1970, the population exploded by more than 32,000 during that twenty year period.

The lower half of the Township (south and east of the SEPTA R-7 line) is devoted almost exclusively to a few large scale nonresidential uses: U.S.X. properties, the Waste Management properties including the GROWS landfill, and the Penn Warner Club lakes and shore property of 2,000 acres.

The upper half of the Township (north and west of the SEPTA R-7 line) is varied and largely built out. About two-thirds of this area is residential and institutional. The balance is a mix of commercial, industrial and utility uses, including the Conrail tracks and U.S. Route 1 Expressway, which run closely parallel to each other between Morrisville and Oxford Valley.

Oxford Valley has evolved into one of the largest commercial centers in the Philadelphia region, which began in the mid 1970s with the construction of the Oxford Valley Mall, Loop Road commercial sites, and Sesame Place properties in Middletown Township along the westerly boundary of Falls Township.

The Oxford Valley properties in Falls Township have also been developed to include: Frankford Hospital - Bucks County; three hotels; the Court at Oxford Valley including Home Depot, B.J. Wholesale, Barnes & Noble, Dick's Sporting Goods, Levitz & Thomasville Furniture, Macaroni Grill, etc.; Cabot Boulevard East including a mix of retail and large industrial users; Oxford Crossing professional offices; and other retail along Commerce Boulevard and Lincoln Highway.

Chapter 3 TOWNSHIP HISTORY

As Falls Township prepares an update to its Comprehensive Plan, it is fitting to reflect on the Township's rich and extensive history which spans four centuries including its original incorporation over 300 years ago. Much of the information contained in this chapter is excerpted from *The History of Falls Township, 1692-1992 A 300th Anniversary History* by Samuel M. Snipes and Jeffrey L. Marshall and Stephanie Will of the Bucks County Conservancy, 2001 - Third Edition.

Before the Europeans

The first people to live in Falls were the Lenni Lenape Indians. Most of the Indians in Bucks were of the Unami division - the Lenape loved the Delaware River, calling it "Lenape - Wihittnek", the River of the Lenape Indians. Unlike the Europeans, the Lenape did not settle down on specific tracts of the land. Instead, they moved from place to place. In his 1654 to 1655 maps and notes, Peter Lindstrom, a Swedish engineer, recorded the Indian name of the territory around the Falls as "Sanckhickan". During Penn's proprietorship they were treated fairly, but they were eventually replaced in the Delaware Valley by the European settlers.

Pennsbury Manor was the site of many Indian conferences and the last great gathering there was May 9, 1735. This was the prelude to the Indian Walking Purchase of 1763 in which William Penn's sons tricked the Indians out of a lot of land north of the Delaware Water Gap.

Early Settlers

The vast majority of early settlers in Falls Township were Quakers. This group of people began to settle the area even before William Penn's arrival and were attracted to the area by William Penn's plan of freedom and his framework of civil government.

Falls Friends Meeting was established in William Biles' home in 1683, being the first church in Bucks County.

Most of the first settlers earned their living by farming. Pennsylvania was heavily forested when the settlers first arrived, and clearing enough land for cultivation was a high priority.

Delaware River

Falls Township is located at the upper limits where the river is affected by the flowing and ebbing of the tide. The very name of the Township comes from a physical feature of the river. The name came from the falls of the Delaware which prevented ships from navigating any further north in the Delaware River.

It is believed by geologists that the river once flowed from Morrisville in the low land between Bridge Street and the railroad, and wound through the "Great Timber Swamp" (now U.S. Route 13) to Tullytown. Gradually alluvial soil was washed up, as the river worked its way toward New Jersey. This accounts for the mining of the sand and gravel deposits by Warner and its predecessors over the past 90 years in the lower portion of the Township.

European Settlement

The Swedes, who settled mostly to the south of Bucks County, had explored and mapped to the falls. Other Europeans, primarily Dutch traders, were in the area by the middle 1600s. Prior to William Penn's receipt of Pennsylvania in 1681, the region was administered by Edmund Andros, the Royal Governor of New York. When Penn arrived in 1682 he found thirteen settlers already located on farms along the Delaware, who had bought the land from Governor Andros of New York, beginning in 1677.

The second tier of farms, beginning at the Makefield line, were settled by persons who came with Penn in 1682 or later, whose farms extended to Makefield Road.

The Founding of Falls Township

The establishment of Falls Township as a separate political unit occurred on the 27th day of July, 1692 by order of the County Court. Bucks, along with Philadelphia and Chester Counties, had been laid out by order of the Provincial Council in 1682. All government was administered on a County basis from the court house located at Crewcorne along the Delaware River just south of Morrisville. It is stated that the first court house in Bucks County was located in Falls Township from 1683 to 1707. It was then moved to Bristol. Historians have speculated on its precise location in Falls Township.

The inhabited portion of the County embraced what is now Bensalem, Bristol, Middletown, Makefield and Southampton in addition to Falls. Morrisville and Tullytown were originally a part of Falls Township before their incorporation. Morrisville and Tullytown became independent Boroughs in 1804 and 1891. At one time Morrisville, named after Robert Morris, the financier of the Revolution, was the largest and most important village in Falls Township. George Washington established his headquarters for six days in the village before moving upriver to Washington Crossing prior to his attack on Trenton on Christmas morning, 1776.

William Penn (1644-1718)

While there was some scattered settlement at an earlier date, most of the significant growth of the area begins with William Penn's acquisition of Pennsylvania. In 1681, Penn was granted what became Pennsylvania by Charles II in settlement of a debt owed to his father. (Penn's father, Admiral Penn, had brought Charles II from exile in Holland in 1660 to assume the throne, after the death of Cromwell.)

Penn sold tracts to potential settlers from his home in Warminghurst, Buckinghamshire, England.

Land just below the bend in the Delaware River had been chosen for the site of Penn's country home, and construction was begun in 1683. Today, the name Pennsbury Manor refers to the recreated manor house. The original manor house was only the centerpiece of an 8,431 acre estate which encompassed approximately one-quarter of the Township.

Penn visited Pennsbury frequently during its construction before the boundary dispute with Lord Baltimore required him to return to England in 1684. Penn and his second wife, Hannah Callowhill, and daughter resided in Pennsbury between 1699 and 1701.

Fallsington

Fallsington was initially a crossroads, containing the first church or meeting house in Bucks County. Gradually, various artisans and retired farmers built houses there with the oldest house being a log cabin built circa 1685 by Edmund Lovett. This house is named the Moon-Williamson House to honor Samuel Moon, a renowned chairmaker, who resided there from 1767 to 1804.

The second oldest house is the eastern brick wing of the Miller residence at 16 Main Street, built by Samuel Burgess in approximately 1692. It is believed that this house resembles the appearance of the first meetinghouse.

The first Falls Friends Meetinghouse was erected in 1692 on six acres of land donated by Samuel Burgess. This is the location of the former schoolhouse now owned by Hugh and Harriet McCue. A larger replacement Meetinghouse was built nearby in 1728, the present gambrel roof house. Craftsmen bought lots in the vicinity of the Meetinghouse. The presence of these vital goods and services generated more traffic and the townspeople provided services for the neighboring farmers, and the village continued to be the site of Falls Meeting. A draft of the village "Fallsington" in 1768 shows the same general shape and same roads that exist there today.

The Quaker population continued to grow and in 1789 a third meetinghouse was built. A fourth and final meetinghouse was erected in 1841, reflecting a doctrinal split among the Quakers throughout the Philadelphia area. Two groups known as Orthodox and Hicksite were formed.

In Falls Meeting, the Hicksites represented two-thirds of the congregation and the Orthodox one-third.

Today, on Meetinghouse Square there remain three standing meetinghouses, the only such assemblage in Bucks County.

Fallsington represents one of the County's finest collection of eighteenth and nineteenth century buildings. It is the finest restored village in Bucks County. The 1685 log cabin, the 1692 brick Miller house, the 1757 Schoolmaster's house, the original section of several other stone houses, and the Federal period additions to the Waggener and Miller houses at 100 Yardley Avenue and 16 Main Street afford an unusual sequence of architecture from very basic to extremely formal. In addition, Meetinghouse Square boasts a rare collection of stone houses (see graphic expansion of the Fallsington area on the Future Land Use Plan along with identification of 21 historic resources).

In the addendum to *The History of Falls Township, 1692-1992* it is indicated that Fallsington was among the first ten original chapters of the Women's Christian Temperance Union - WCTU circa 1874. The WCTU worked with other organizations that were opposed to alcoholic beverages. As a result of this, the tavern in the National Hotel in Fallsington as well as the Wheatsheaf Inn were closed.

Fallsington is a beautifully preserved village and is listed on the National Register of Historic Districts. It is also identified as an Historic Preservation District in the Falls Township Zoning Ordinance. Fallsington welcomes visitors and maintains a visitors' information center.

Other early villages in Falls Township in addition to Morrisville and Fallsington were:

- Tullytown;
- Oxford Valley; and
- Tyburn.

Early Transportation

Roads in colonial Bucks County were opened as they were called for by local residents. In most cases roads were officially laid out to facilitate travel between important sites such as ferries, meetinghouses, mills, or taverns. In Falls Township, as in other communities along the Delaware River, many of these older roads followed even older Indian paths. One of the earliest recorded roads was a 1703 road leading from the Falls Meetinghouse to Bristol, which was the site of an important ferry and market town.

In the early days of Pennsylvania, the Delaware River was a barrier to overland travel. Ferry landings were built in intervals along the riverbanks, connecting roads in Pennsylvania with those in New Jersey. The southernmost ferry was the Bordentown, or Kirkbride, ferry established in 1718.

The Biles Island ferry was the next one to the north, offering service between Falls and Hamilton Township, New Jersey. Three ferries operated between Morrisville and Trenton, New Jersey. The oldest was the Middle ferry which possibly was licensed before 1700. This probably was the ferry that Washington used to retreat into Pennsylvania before the Battle of Trenton.

The Morrisville to Trenton ferries became obsolete when the first bridge was put across the river by the Trenton Delaware Bridge Company and opened on January 30, 1806. This was a wooden covered bridge.

Taverns

Historically, the existence of inns and taverns has been justified primarily because they met the needs of travelers for lodging and refreshment when business or other activities required them to be away from home. Nowhere was this service to the traveling public more important than in Falls Township, even in the time of this earliest settlement.

Falls Township lay directly along the most important route that connected Philadelphia with New York, and thus along a corridor that linked all of the original Colonies. Later, taverns also served a more local function as meeting places, social centers, etc.

The History of Falls Township 1692-1992 chronicles eleven taverns or inns that once functioned in Falls Township or in neighboring Morrisville or Tullytown. Apparently, all but one of these taverns has ceased operations and disappeared. Only the Fallsington Inn, 1798, remains. Listed below is a direct excerpt from *The History of Falls Township 1692-1992*:

*Fallsington Inn
1798*

The first tavern licensed at Fallsington was that of Mahlon Rickey, who first applied for a license in November 1797, but it was not granted until May 1798. At first the inn was located in a house owned by William Dean where the Gillingham Store now stands. By the early part of 1799, Rickey moved his tavern across the street to a much larger house owned by Mahlon Minor, and there it remained. During the 19th century it was known as the Fallsington Inn and the National Hotel. It remained in license until the coming of Prohibition in 1921. The building has been restored and is part of Historic Fallsington, Inc.

Delaware Canal

Anthracite coal is the key to understanding the reason for building the Delaware Canal. The War of 1812 brought coastal blockages by the British, so that the bituminous coal from England and Virginia could no longer supply Philadelphia. Enterprising owners of a wire mill, Josiah White and Erskine Hazzard, tried anthracite coal but could not get it to ignite. In frustration, a workman slammed the door of the furnace and left for the night. Within an hour the furnace was glowing with white heat. White and Hazzard learned that anthracite coal in a closed stove with a controlled draft produced excellent heat and little smoke, and made it far superior to bituminous coal.

Subsequently, White and Hazzard developed an ingenious system of canals and locks to deliver coal to Easton and then to transport the coal by barge and mules to the Delaware River. They had hoped to transport from there to Philadelphia by road or the river. The river was impractical. The state of Pennsylvania in 1827 then built the Delaware Canal from Easton to Bristol to transport coal and other products in order to stimulate commerce.

It took twenty years to perfect the Lehigh and Delaware Canal systems. Ultimately the Lehigh system covered 46.2 miles from Jim Thorpe to Easton with a drop in elevation of 353 feet and 49 locks. From Easton to Bristol was 60 miles, with a drop of 180 feet in elevation with 24 locks. From Bristol the barges of coal were towed by steamboat tugs on the Delaware River to Philadelphia. The first mule-drawn barges reached Bristol on July 23, 1832.

The Delaware Canal was built paralleling the Delaware River from Easton to Morrisville, keeping in the narrow alluvial plain that bordered the river. At Morrisville, the Canal cuts through the broad alluvial plain of Penn's Manor in Falls Township in approximately a straight line to Bristol. Tullytown was initially considered as the port of entry into the river.

The Delaware Canal was opened to the public and tolls were charged. In addition to coal, this Canal was used by many commercial enterprises as well as leisurely passenger travel and recreational parties. Traffic was heavy on the Canal as it passed through Falls. Traffic was at its peak during the Civil War years and slacked off as the railroad network expanded. Increase in commercial transport by railroad and eventually trucks reduced the use of the Canal, which was closed in 1931.

The Delaware River Protective Association was instrumental in obtaining the gift of the Canal to the Commonwealth of Pennsylvania in 1931, and it has been an important factor in keeping the Delaware Canal and its tow path as a park over the years, rather than a roadway.

Railroads

Railroads, like canals, were important 19th century changes in methods of transportation and travel in the United States. Falls Township was the site of one of the early railroads in Pennsylvania, the Philadelphia and Trenton Railroad Company that was incorporated February 1832. It eventually became part of the line between Philadelphia and New York. This company continued to operate the line until it was leased by the Pennsylvania Railroad Company in 1871.

A second rail line, the Trenton Cut Off, was laid through Falls beginning in 1889. The section from Morrisville to Norristown opened in 1891. This was primarily a freight line which diverted traffic heading west from the congested terminal in Philadelphia. It also provided passenger stations for a few years for Fallsington and Oxford Valley.

Civil War (1861-1865)

In 1862, 100 men between the ages of 18 and 45 served in the Pennsylvania Regiment. In 1863, Samuel Comfort of Falls began recruiting a company of Bucks County Cavalry. The troopers mustered into the service on the Fourth of July and became Company "F" of the 20th Regiment of Cavalry with the 181st Pennsylvania Volunteers. They were involved in the Battle of New Market in Virginia and in operations in West Virginia, including Petersburg in the spring of 1865.

Economic History

A tremendous influx of new settlers in Philadelphia gave rise to ever increasing demands for human and animal food. To meet this need, more land was cleared. Hay, wheat and corn were hauled to various landings along the Delaware for transshipment by sailing scows or ferries to Philadelphia. Prior to wharfs being built, the team and wagon were driven out into the river during low tide to a flat bottom boat which had been run ashore during low tide.

Prior to building of bridges over the Neshaminy Creek, about 1800, the farms along the Delaware had a double advantage over those farther inland. These river farms had comparative ease in loading at their own landings. Secondly, the alluvial quality of the soil was richer than most of the interior land in the Township.

These geological influences have profoundly influenced the economic life of the Township. The alluvial plain which encompassed Penn's Manor 6,500 acres, which is now largely owned by Warner Company, and also the farms to the east and north of Penn's Manor 6,500 acres mostly owned today by the United States Steel Corporation, have become famous for abundant crops.

By the middle 1700s most farms had been cleared and the second and third generations from the original settlers had prospered sufficiently in their trade with Philadelphia to build stone farm houses. Examples of such houses are still standing in Fallsington. Others include Catherine Guzikowski's house on Stony Hill Road; the Good Friends Inc. and Samuel Snipe's houses, both on Snipes Farm on Lincoln Highway; and the Three Arches in Fairless Hills.

The period from the Revolution to the Civil War was the heyday of farming in the Township. Land values rose steadily, as more and more immigrants came to Philadelphia, and more and more food was needed.

The opening of the railroads to the West in the 1850s checked this agricultural boom, and from then on land values remained at about \$100 per acre for nearly 100 years until 1940.

The original 6,500 acre Penn's Manor tract was sold in 1770 by the great-grandchildren of William Penn after reserving the Manor House and 300 acres. The Manor was divided into tracts of 200 to 300 acres and then resold following the Revolution. Farms fronting along the river were in several instances purchased by prominent Philadelphians for country residences.

While the Penn's Manor area was thriving, the rest of the Township was also active. The canal, which was commenced in 1833, afforded transportation to Bristol on mule-drawn barges for crops. More importantly, vast numbers of mules had to be boarded in the wintertime when the canal was frozen and enterprising farmers built larger barns to accommodate these mules. The Alfred H. Moon farm on the present Strick Trailer site and the Daniel Price farm, which included both Breezy Acres Mobile Home Park and a portion of Fairless Hills, each boarded more than 200 mules.

Following the Civil War, Falls Township farmers shifted to milk production when the West began supplying grain to big cities. The dairy industry seems first to have started with individual farms transporting their milk daily to Trenton. Those who did not desire to run their own milk route sold to the middleman who operated a creamery. There were seven creameries in Fallsington during the heyday of dairying in 1900. The largest and finest dairy farm in Falls Township was owned by Henry Comfort and was known as "Castenea Farm". It embraced Pennsbury Heights, Falls Park, Sweetbrier Apartments, and some of Lower Makefield Township. The fame of Castenea Farm's milk was such that the name appeared as Borden-Castenea in this area until World War II.

The Pennsylvania Railroad also had a significant impact upon Falls Township. The line was chartered in 1833 and completed from Morrisville to Philadelphia in 1835, generally running between the canal and river. There was a station at Penn Valley Road in Falls Township. This was known as "Frog Hollow". Later, the station name changed to "Penn Valley".

As the railroad grew, it became necessary to transport freight directly from New York to Harrisburg, bypassing Philadelphia. The tranquility of Falls Township was again disturbed in 1890 by this "Trenton Cut Off", as the new rail line came to be called.

In 1910, the Trenton Cut Off Railroad was widened to four main tracks and a roundhouse accommodating fifty engines was erected between Fallsington and Morrisville. The volume of traffic during World War I was tremendous, with as many as four steam engines pulling transcontinental trains. The railroads have provided much employment to Township residents in former times, and were the Township's first big industry.

In the 1890s sand and gravel were sold from one of the farms along the river. Soon two separate companies: Van Scivers and Warners began competing with each other in acquiring farm after farm in Penn's Manor. In 1929, when Van Sciver's son showed no interest in continuing the family business they sold out to Warner. The Van Sciver plant and lake date from this era. The Warner Company thus acquired approximately 6,000 acres on which the present sand and gravel mining takes place. They then developed a cement plant in the early 1930s and a slag plant following the coming of U.S. Steel.

Following World War I, Paul Starkey assembled many of the remaining family farms in Penn's Manor near the curve of the river. He introduced modern truck farming, gradually shifting from horses and mules to tractors. Truck farms were active from 1930 to 1949, when U.S. Steel arrived. During that time period there were 5,800 acres in vegetable farming, which placed Pennsylvania among the top vegetable states. It is said that the King Farm of 4,000 acres was the largest grower in the country, as was written in Fortune Magazine in 1933. Following World War I, refrigeration was developed. Tractors enabled a field to be plowed, disced and planted in the same day. Large packing houses were built on the farms and vegetables were sent in fleets of trucks overnight to points as far as Boston and Richmond. Later, King patented the conveyor belt harvesting machine currently in use in the truck farming industry.

Other significant developments since World War II, in addition to the advent of U.S. Steel, have been the Penn Warner Industrial Park with K-Mart as the largest component; Bucks County Industrial Park on Cabot Boulevard East; Conrail Piggy-Back Terminal for tractor trailer transfers; Sheraton and Marriott Courtyard Hotels; Frankford Hospital - Bucks County (formerly Delaware Valley Medical Center); U.S.X. Industrial Park which occupies a portion of the now closed Fairless Works; Waste Management - GROWS landfill; and numerous shopping centers along both sides of Commerce Boulevard between Lincoln Highway and Oxford Valley Road.

Falls Township Since 1950

In the early 1950s, dramatic changes in the Township's population and economy took place (see Demographic study elsewhere in the Comprehensive Plan) following U.S. Steel's construction of the Fairless Works on 3,900 acres of farm land; followed closely by two huge housing developments: the 1,200 acre housing development of the Danhurst Corporation and the portion of Levittown located in Falls Township. These two entities in conjunction with the Warner Company's development/excavation of sand and cement comprise approximately 80% of the land and water surface of Falls Township, are largely responsible for its present land use and are assets and components which are a critical part of the elements of the Future Land Use Plan. These three land uses are largely responsible for replacing dairy farming and truck farming as the principal land uses prior to 1950.

The three developments are also strongly linked. Warner supplied 1,400,000 tons of products in building the Fairless Works of U.S. Steel and in turn developed a slag plant on Lauderbach Road to process the slag from U.S.X. into smaller sizes for use as a filler in road building and substitute for gravel and stone. The 1,200 acre (14,000 population) that became known as Fairless Hills closely paralleled the construction of the \$4,000,000 Fairless Works U.S. Steel development on 3,900 acres between the bend in the Delaware River and Morrisville.

The Warner Companies (1687-1991)

William Warner of Worcestershire, England settled on the Schuylkill in 1678 just as the 13 pre-Penn settlers did along the Delaware. Joseph Warner (1742-1800) was a silversmith in Wilmington, Delaware; a leader of the Abolitionist movement to free slaves; Mayor of Wilmington; and founder of a sailing ship business trading in the West Indies.

His two sons continued in the West Indian and coastal shipping businesses and began to sell anthracite coal and founded a passenger steamship service from Wilmington to Philadelphia, which they gradually shifted to hauling freight. This expanded into hauling other products such as sand and cement. As early as 1833, William Warner began supplying sand to builders from the beaches of the Delaware Bay. In 1883 the growing volume of sand sold by Warner demanded a speedier transfer from vessels to rail cars. New unloading equipment was invented. In 1890 they began dredging the river for more sand, which was a turning point in reference to the future of Falls Township. As World War I progressed, the need for sand and gravel increased. To augment its sand reserves, Warner entered Falls Township by buying a half interest in Manor Sand and Gravel Company, which ran from Scotts Creek to Lauderbach Road (U.S.X. boundary). In 1920 Warner bought the other half interest.

Because of the presence of clay near the river, dredging equipment could not start at the river's edge and work inward. To solve the problem, a channel was dug through the clay, into a small interior basin surrounded by deposits of rich sand and gravel. Then a dam was built across the channel and water pumped in 10 feet above the river high tide level so that the dredge could operate. The mined sand and gravel were then transported by Warner's private railroad to Warner's terminal plant above Pennsbury Manor for shipment by barge to Philadelphia.

James Van Sciver entered the concrete sand business in 1901, obtained properties in Falls Township that became the lake that bears his name, and was an intense rival of Warner. Van Sciver and Warner both expanded and Warner bought out Van Sciver in 1928. From 1928 through 1952 Warner acquired most of the rest of the farms in Falls Township, but for a time Warner leased its reserve farm land to King Farms Company (see the discussion on King truck farming previously in this chapter).

Warner developed the art of mixing concrete by prepared formula in a central plant and hauling it to the customers' location in a rotating barrel on a truck. A large fleet of cement trucks operated for many years. Charles Warner, as President of Warner Company, donated ten acres that included the site of Pennsbury Manor to the Commonwealth of Pennsylvania in 1932. The Warner Company likewise donated the Falls Waterfront Park to Falls Township in 1983. Warner then developed Penn Manor Club, Village of Pennbrook Apartments, Pennbrook Crossing Mobile Home Park and Penn-Wyn Mobile Home Park, and Penn Warner Industrial Park on New Falls Road.

In 1981 and 1982, Waste Management Company bought Warner Company to use the 19 landfills that Warner operated at various locations throughout the U.S.A. Warner's mining activities on the north side and west side mining areas continue under Waste Management.

Waste Management and GROWS Landfill

The Waste Management headquarters is on New Ford Mill Road at the former Turkey Hill Club. There are eight subsidiaries of Waste Management in Falls Township and Tullytown Borough. They embrace all of the former Warner Company operations as follows:

1. GROWS - Geological Reclamation Operation and Waste Systems, Inc. landfill on Bordentown Road.
2. Pennsbury Power Production plant on Bordentown Road.
3. Tullytown Resource Recovery facility.
4. Warner Slag division on Lauderbach Road.
5. Warner Northside - The excavation north of Tyburn Road.
6. Warner Westside - The excavation on Wheatsheaf Road and Penn Valley Road.
7. Penn Warner Club.
8. Waste Management Hauling on Newbold Road.

GROWS landfill is a municipal solid waste disposal facility used for the disposal of both residential and non-hazardous industrial wastes. The landfill is located in Falls Township, Pennsylvania. The facility disposes of solid waste generated in Bucks County, Southeastern Pennsylvania, and the greater Trenton area of New Jersey. A total of 304.5 acres is permitted for landfilling operations, although the company owns several thousand acres surrounding the facility, including the Penn Warner Fishing and Camping Club. GROWS landfill is considered to be a state-of-the-art landfill that is designed, constructed and operated with extensive environmental protection safeguards.

In 1974 construction of a leachate treatment plant was begun at the GROWS landfill facility, in cooperation with the United States Environmental Protection Agency (U.S. EPA). The leachate treatment plant incorporates biological, chemical, and physical treatment processes to maintain the quality of its effluent. This plant is the first of its kind in the United States and was the subject of several years of study by the EPA and private companies.

The operation of the treatment plant and the quality of its effluent is monitored on a daily basis by the plant operators and on-site laboratory staff; and on a weekly basis by an independent laboratory.

The Pennsbury Power Production plant began operation during January 1988. Landfill gas (methane) generated by the decomposition of solid waste is collected via gas wells and a piping network and is transported to the adjacent Pennsbury Power Production plant, where it is recycled to produce energy. Currently, enough electricity is generated in one day to provide power for approximately 10,000 homes.

Fairless Works

In 1948 the Supreme Court outlawed the "basing point system". This meant each customer for steel had to pay his own transportation costs. This decision, along with the discovery of rich deposits of iron ore in Venezuela, were key to building the Fairless Works. The location of the Fairless Works was the only available area north of Philadelphia on the Delaware River below the tide water limit at Morrisville - Trenton. It provided an East Coast mill to enable U.S. Steel to more profitably serve existing East Coast customers.

The Pennsylvania Railroad was ever ready to promote industry through its development subsidiary and began quietly acquiring farms in the lower part of Falls Township - still then known as Penn's Manor. Thousands of acres were acquired including the 1,900 acre Starkey farm, which included packing houses and a canning factory. As prices rose more farmers sold their land. Between November 1948 and January 1950 Manor Real Estate took title to 60 properties, embracing most of the 3,800 acres which became Fairless Works. Fairless Works was proclaimed as the largest integrated steel mill built at one time in the country. It produced its own coke, iron and steel. The iron ore and limestone were unloaded from ocean-going ships at the river dock. Coke was made from coal in the nearby coke works. Iron was produced from ore and limestone and coke in three blast furnaces and then transported to the nine open hearth furnaces, where it was mixed with alloys to form steel. 13,000 workers were on site to develop the equipment and the facilities.

Traffic was so heavy and continuous through Fallsington and Morrisville that the New Tyburn Road around Fallsington was constructed (circa 1954). The Fairless Works poured its first steel December 11, 1952 and by the end of 1953 all facilities were in full operation. Starting in 1954 ore began arriving regularly from foreign ports.

From the early days of iron and steel production until 1968, Fairless Works maintained a steady employment rate of 6,000 to 7,000 employees. The Fairless Works was constructed using the traditional open hearth method of producing steel. It is the last such open hearth mill constructed in the United States. Ironically, a new advanced state of the art process - the first Oxygen steel making type of mill - was built in 1949 and this process was eventually to make the open hearth method outmoded because it could produce greater quantities of steel in a shorter time. Other new plants around the world adopted the oxygen steel making process and seriously challenged the older American open hearth steel mills. U.S. Steel eventually modified its open hearths over the years by adding oxygen jets, and this reduced the time of each "heat" by 50%. But it was not enough to combat the many aspects of foreign competition.

In the early 1990s United States Steel was renamed U.S.X. By 1972 production capacity had increased to 4 million tons and employment reached 9,000 workers. But by 1975 "continuous casting" in newer steel mills made Fairless outmoded. The first big layoff - 2,300 workers - occurred in 1975. Things continued to decline and by 1991 most of the steel making operations in the "hot end" were shut down.

In 1992 U.S.X. Fairless Works began demolition of seven major structures. Three blast furnaces, the coke plant, the open hearth, the loading dock cranes, the prodigious ladles and structural steel walls were all dismantled and cut up for scrap iron and melted down. Today, virtually all of the remaining operations in Falls Township have been shut down and Falls Township is dealing with a future without the Fairless Works, which at one time was by far the single largest employer in Bucks County.

Residential Communities of Levittown and Fairless Hills

The Danhurst Corporation started construction of Fairless Hills in April 1951. The 2,200 homes were built along Trenton Road in the Township. A short time later Levitt and Sons purchased several farms along Mill Creek Road and planned to build 4,000 homes in Falls Township (other parts of Levittown are situated in Bristol and Middletown Townships and Tullytown Borough). These new developments brought requirements for volunteer rescue squads, fire companies, service clubs, Boy and Girl Scout troops, business organizations, and local newspapers. Obviously, great pressure was placed upon Falls Township to provide for adequate municipal services of sewer and water, and police, and the Pennsbury School system to provide for adequate facilities for the education of a population growing at an explosive rate. Many new churches also followed, along with recreational facilities. Thus, in the decade of the 1950s thousands of new single family homes were added in an area that had largely been agricultural and gravel and sand mining. Levittown was planned so that an elementary school would be in the center of each master block, which included a swimming pool, ball field, and recreation places. In the Falls Township sections the Levittowner, the Rancher, and the Jubilee models were available for \$100 down payment.

Pennsbury School District

Soon after the conclusion of World War II, members of the School Board of Falls and Lower Makefield Townships and Yardley Borough realized the need for a more comprehensive and diversified school curricula. There was a consensus that some form of consolidation could address community concerns for a more comprehensive educational system at all grade levels. This led to the formation of the Pennsbury Joint School District in 1948 (eventually in 1964 Tullytown Borough became the fourth municipality in the Jointure). Shortly after plans had been completed for the new school district it was learned that the new industry, later identified as U.S. Steel, followed shortly in 1950 by the Danhurst Corporation and Levitt and Sons' plans to build collectively over 6,200 homes which meant that a great challenge needed to be addressed by the School District (12 new schools were added from 1950 through 1962). The rapid growth experienced in the 1950s and 1960s with a peak enrollment of 13,380 students in 1973 tapered off for the remainder of the decade and began to decline through the 1980s. Current enrollment is approximately 11,452 students. In 1966 the school system became the Pennsbury School District.

Five elementary schools (including a portion of Walt Disney campus), Pennsbury West (formerly Medill-Bair Intermediate School) and Pennsbury East High Schools (on a 110 acre campus with Village Park Elementary) are located in Falls Township.

The Pennsbury schools are complemented by the fine private and parochial schools in Falls Township and surrounding area: St. Joseph the Worker, St. Francis Cabrini, St. Michael the Archangel, Bishop Conwell, Bishop Egan, Pen-Ryn and Hebrew Religious School, the Valley Day School, and the soon to be constructed Montessori School adjacent to the Tyburn Road U.S. Route 13 Interchange.

Chapter 4

DEMOGRAPHIC SUMMARY

The following is a summary of the complete Demographic Profile Falls Township, Bucks County, PA.

The report presents selected population, housing, and economic characteristics for Falls Township. When applicable, data for Bucks County and the Delaware Valley 5-County Pennsylvania Region are also included in order to enable comparisons with regional trends. The 5-County Region being utilized in this report encompasses Bucks, Chester, Montgomery, Delaware and Philadelphia Counties.

Population

Falls Township grew from a relatively rural undeveloped community through the 1940s, to a highly suburbanized municipality as a result of the 1950s decade of growth which added nearly 28,000 people during that short span in time that included U.S. Steel Corporation's plans to construct a new steel plant on the Delaware River in Falls Township and the development of Levittown and Fairless Hills in significant portions of Falls Township. As a result of these combined forces, Falls Township experienced a population growth of nearly 722% in the one decade of the 1950s.

Since that time, population growth has slowed considerably and has remained fairly consistent, vacillating slightly between 35,000 and 36,000 over the past 30 years.

From 1980 to 2000 Falls Township decreased approximately -3.4% in population, while during the same time period Bucks County increased at a rate of 24.7% and the 5-County Region increased at the rate of 4.5%. Falls Township and its five neighbors¹ comprised 30% of the County's total population in 2000.

Population forecasts from the year 2000 to 2025 estimate that Falls will grow at the rate of approximately 2% (an addition of 595 persons), whereas during the same period Bucks County will grow at the rate of 25% and the 5-County Region will grow at 9.2% during the 25 year period.

¹Bristol Township, Lower Makefield Township, Middletown Township, Morrisville Borough, and Tullytown Borough.

Comment: During the next 25 years Falls Township is in the somewhat unique position of having to deal with a relatively static population, that is to say the relative density of population is expected to remain virtually unchanged or perhaps even decrease. During the same period, Bucks County and the 5-County Region will experience significant population growth and increases in population density. Demand for services has perhaps peaked. Revenues that rely on an expanding population will likely not support a future increase in costs for a declining population.

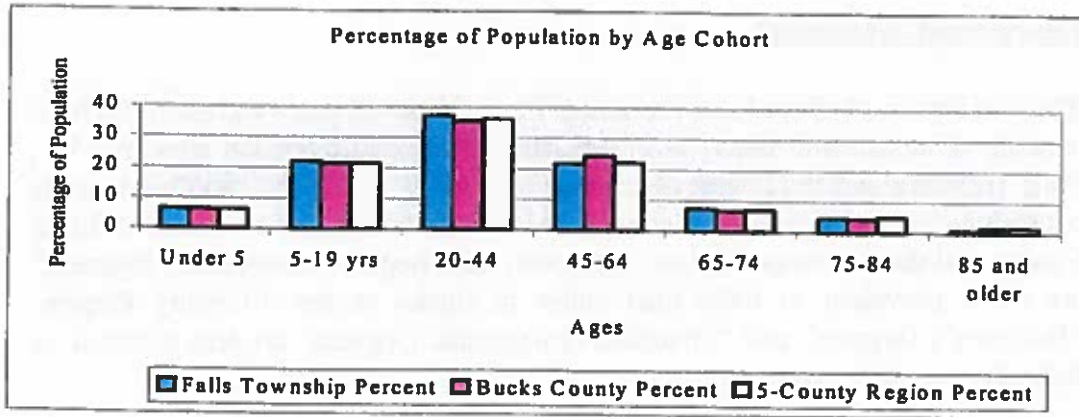
Age of Population

The median age in 2000 in Falls Township was 36.4. The residents of Falls Township are slightly younger than Bucks County and the 5-County Region's population. Of the seven age cohorts studied in the U.S. Census of 2000, the cohort with the greatest deviation from Bucks County and the 5-County Region was the 85+ range, which is significantly smaller (0.7%) compared to Bucks County and the 5-County Region (1.4% and 1.7% respectively). A comparison to the age cohorts of the five adjoining municipalities (Bristol, Lower Makefield, and Middletown Townships and Morrisville and Tullytown Boroughs) reveals a general similarity among the six municipalities with slight differences observed in the age 20-44 cohort where Falls Township is among the larger percentage and in the 85+ plus cohort whereas consistent with other comparisons Falls Township has among the lowest percentage.

Change in Age Cohorts

Despite an overall slight loss in population from 1990 to 2000 in Falls Township, several age cohorts experienced enormous gains nearly doubling in size during the same period. Most of the increase occurred in the older groupings, i.e., 75-84 and 85+. These increases were significantly greater than the County average but in general parallel to the adjoining Townships. The cohort under 5 years of age experienced the greatest decline at a negative rate five times that for Bucks and twice that of the 5-County Region. All the age cohorts under the age of 64 grew at rates less than the County average or declined at rates greater than the County average. There are similar patterns in most of the adjacent municipalities with the exception of Lower Makefield's distribution, which stands out in comparison largely because no cohort experienced any decline throughout the 1990s.

Age Cohorts as a Percentage of Total Population, Falls Township, Bucks County, and 5-County Region, 2000



Source: US Census, 2000

Race

The racial distribution of Falls Township is similar to Bucks County's overall racial distribution in 2000, though there were some variations. Of Falls total population of 34,869, 90.7% are white and black/African American is the second largest racial grouping in Falls accounting for 4.1% of the Township's population. Bucks County has a slightly higher percentage of whites and a slightly lower percentage of blacks/African Americans than Falls Township.

Household Characteristics

Falls Township primarily consists of family households (71.4%), of which more than half are married couple families and 12.1% are female-headed families. This pattern is similar to that found in Bucks County where 73.6% of all households are *family households*. The average family size in Falls (3.15) is comparable to that in Bucks County (3.17).

Another indicator of community character is the presence of group homes. This term includes those people residing in group quarters such as:

- Institutional population including correctional institutions, nursing homes, and juvenile institutions; and
- Non-institutionalized population such as college dormitories, military quarters, and group homes.

Falls has a significantly lower percentage of persons residing in group homes (0.2%) than both the County, where 1.7% of the population resides in group homes, and the 5-County Region where 3.2% of the population resides in group homes.

Educational Attainment

The distribution of educational attainment for residents 25 years and older has been studied. Compared to Bucks at 2.75% and the 5-County Region at nearly 5%, Falls Township has the lowest percentage of persons with a less than ninth grade education (2.61%). Patterns of educational attainment are similar to that of Bucks County and the 5-County Region. However, the category "Associate's Degrees" are more prevalent in Falls than either in Bucks or the 5-County Region, "Bachelor's Degrees" and "Graduate/Professional Degrees" are less common in Falls than in other geographies.

Comment: If there is a correlation between lower percentage of advanced degrees and lower household incomes, then the Township would benefit by having an affordable college presence in the community.

Housing

The Township's housing stock has been increasing through the 1980s and 1990s. In 1980 there were 12,450 housing units, by 1990 the number of units had grown by 6.9% to 13,307 and by the year 2000 had reached 13,522. From 1990 to 2000, Falls grew at a much lower rate (1.6%) when compared to Bucks (12.8%) and the 5-County Region (5.0%).

Comment: It should be noted the housing stock has risen over the last two decades despite the fact that the actual population has slightly decreased during the same period. This gives evidence of the increase in one person households and the general decrease in family size.

Analysis of the type of homes or units in the Township is important in forming an understanding of the character of the community. Falls Township has a majority of its housing stock in single unit detached homes (62.4% in 2000 compared to Bucks County which was only slightly higher at 64.1%). This data is significantly greater than the percentage of single family detached homes (35.9%) in the 5-County Region.

The second most prevalent structure type by percentage in Falls is the mobile home at 11.7%. This rate is very significantly greater than the percentage for Bucks (2.5%) and for the 5-County Region (1%).

The category of 1-unit attached (twins) for Falls at 3.2% is far less than Bucks (13.9%) and the 5-County Region (37.1%), where in both instances it ranks as second highest.

Comment: Single family homes (standard and mobile homes) account for 74% of all housing types, far greater than for Bucks (66.5%) and the 5-County Region (36.9%).

**Units in Structure as a Percentage of All Units
Falls Township, Bucks County, and the 5 Pennsylvania County Region, 2000**

Housing Type	Falls Township				Bucks County				5-County Region	
	2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%
1-Unit, Detached	8,435	62.40%	8,371	62.90%	144,555	64.10%	126,347	63.20%	561,806	35.90%
1-Unit, Attached	432	3.20%	293	2.20%	31,382	13.90%	24,446	12.20%	580,688	37.10%
2	152	1.10%	93	0.70%	5,752	2.60%	4,937	2.50%	84,349	5.40%
3 or 4	109	0.80%	80	0.60%	5,963	2.60%	5,050	2.50%	78,943	5.00%
5 to 9	424	3.10%	297	2.20%	8,256	3.70%	7,186	3.60%	54,976	3.50%
10 to 19	1,052	7.80%	828	6.20%	9,805	4.30%	11,258	5.60%	50,094	3.20%
20 to 49	816	6.00%	1,353	10.20%	6,278	2.80%	8,851	4.40%	45,281	2.90%
50 or more	517	3.80%	323	2.40%	7,713	3.40%	4,006	2.00%	94,156	6.00%
Mobile home	1,585	11.70%	1,612	12.10%	5,723	2.50%	5,663	2.80%	14,916	1.00%
Boat, RV, van, etc.	0	0.00%	57	0.40%	71	0.00%	2,190	1.10%	432	0.00%
Total	13,522	100.00%	13,307	100%	225,498	100%	199,959	100.00%	1,565,641	100%

Sources: U.S. Census 2000

Selected Characteristics of Housing

The majority of the housing stock in Falls Township is comprised of owner-occupied units, which at 73.5% is similar to that of Bucks (77.3%) and the 5-County Region (68.4%). A look at the absolute numbers of rental tenure indicates that 3,487 renter-occupied units existed in Falls Township in 2000.

In 2000 the overall vacancy rate for Falls Township was 2.6%. This is a significant reduction in the vacancy rate from 1990 and ranks below that of Bucks County (3%) and the 5-County Region (6.8%).

Comment: Falls Township's very low vacancy rate suggests a strong and popular housing market and is perhaps symptomatic of few housing starts throughout the 1990s.

**Total Units and Vacancy Status
Falls Township, 2000**

	1990	2000	Change 1990 - 2000	
			#	%
Total Housing Units	13,307	13,522	215	2%
Occupied Housing Units	12,546	13,166	620	5%
Percent Occupied Units	94.3%	97.4%		
Vacant Housing Units	761	356	-405	-53%
Percent Vacant Units	5.7%	2.6%		

Source: U.S. Census, 1990 and 2000

Age of Housing Stock

On a decade basis, a majority of the housing stock in Falls Township was built in the 1950s (nearly 50%). The second most prolific time period of construction is the 1960s and 1970s, when 33% of the housing units were built. It is interesting to note that only 2.7% of the total housing existing in Falls Township was built before 1940.

Housing Value and Rent

A majority of Falls Township's housing is in the \$100,000 to \$150,000 range (67.5%). The median value of owner-occupied housing in Falls Township is \$123,700. The median value for Bucks County is \$163,200.

Comment: Falls Township housing is considered very affordable with 96.2% of all housing valued under \$200,000. This is far greater than any other comparison with either Bucks County (68.9%) or the 5-County Region (79.4%). The lower median may be influenced by the high number of mobile homes in Falls Township.

Falls Township's median gross rent at \$736 per month is exactly in line with the County's, also at \$736 per month.

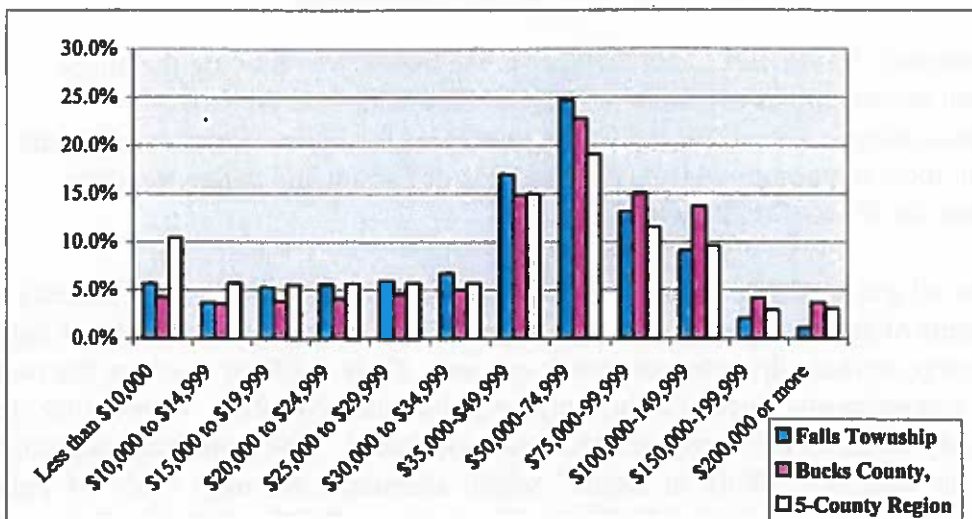
66.7% of the population lives in the same house as in 1995. This is slightly higher than 63.2% for Bucks County. This range is comparable to adjoining municipalities (with the exception of Tullytown Borough which is the highest at 72.1%).

Comment: However, said another way in the five year period from 1995 to 2000 exactly one-third of the residences changed ownership/occupancy. This would average an excess of 6% a year, which represents a fairly dynamic transfusion of ownership. Since few new houses have been built since 1995, the ownership change is largely due to resales.

Household Income

The median household income for Falls Township is \$50,129 which is approximately 16% behind the median for Bucks County at \$59,727. However, for comparison to Bucks County and the 5-County Region the highest incidence were virtually identical with the highest income category in the \$50,000 to \$74,999 range (24.7% for Falls), followed by the \$35,000 to \$49,999 range (17% for Falls), with the third category of \$75,000 to \$99,999 range (13.1% for Falls). The most significant differential lies in the over \$150,000 income distribution, which for Falls accounted for 3.2% and for Bucks accounts for 7.9% and for the 5-County Region is 6.2%.

Household Income Distribution, 1999: Falls Township, Bucks County and the 5-County Region



Source: U.S. Census, 2000 Summary File 3 (SF 3) - Sample Data

Employment and Jobs

According to the 2000 Census 68.5% of the Township's population is in the labor force, 31.5% is not, and 0.10% is in the Armed Forces. This distribution is similar to that found in Bucks, Chester and Montgomery Counties. The Township's employment rate for those 16 years of age and over in the civilian labor force is 96.6%, the highest of the geographies presented. Similarly, the unemployment rate for Falls Township is 3.4%, the lowest of the areas examined. The unemployment rate for Bucks County is 3.5% and the 5-County Region is 6.5%.

The distribution of residents' employment by industry type is listed below. The top five industries employing residents of Falls Township include:

- Educational, health and social services.
- Retail trade.
- Manufacturing.
- Professional, scientific management administrative, waste management services.
- Finance, insurance, real estate, rental and leasing.

Educational, health and social services is the industry employing the single greatest percentage of residents in both the Township and the County, *manufacturing* is second for the County but third for Falls. *Retail trade* is the second most important industry for residents of Falls while taking the third position for Bucks County overall.

Across all geographies, the most popular means of transportation for residents is by means of automobile with the majority of them driving alone (93.4% of Falls Township workers drive by car, truck or van). Only 2.8% of workers for both Falls Township and Bucks County rely on public transportation, whereas for the 5-County Region 11.3% rely on public transportation. One significant departure is in the category "Work at Home" which accounted for only 1.6% of Falls Township residents, whereas for Bucks County it was 3.6% and for the 5-County Region 3%. However, it is interesting to note that the residents of Falls have the shortest commutes, in terms of duration. Residents of Bucks County and the 5-County Region have similar distribution of commuting time with both having a higher commuting time than for Falls Township.

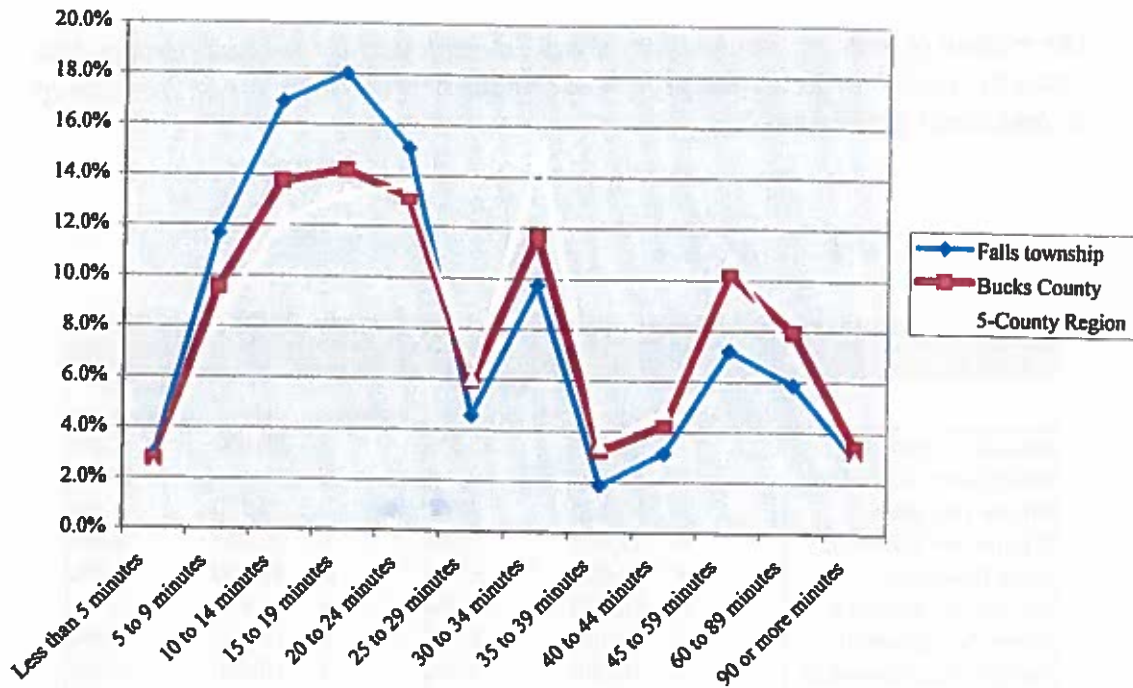
Comment: Residents of Falls are living within five miles of more than 100,000 jobs in Lower Bucks County alone - see discussion below. This, along with good access to major highways, accounts for the shorter than average travel to work. However, zoning ordinance standards should be evaluated to make certain there are not barriers to fostering home occupations (Falls is less than half of the County average for work at home).

Data on residents' commutes can be categorized in three destinations:

- Work outside place of residence.
- Work outside County of residence.
- Work in County of residence.

Residents of Falls Township are more likely than other Bucks County residents to work in the County (60.4% versus 55.4%), but are also much more likely to work in a different State (26.8% versus 14.4%). This is largely attributable to Falls Township's close proximity to New Jersey and access to major arterials that provide easy access.

Commuting Time Distribution for Workers 16 Years and Older not working at home: Falls Township, Bucks County and the 5-County Region, 2000



Source: US Bureau of the Census, SF3, 2000

Jobs in Falls Township

An important indicator of economic vitality for a community is the number and growth of jobs in that community. Falls Township had 14,400 jobs in 1990 and it was expected that the Township would increase that number by 1,120 by the year 2000, representing a 7.8% increase over ten years. The Delaware Valley Regional Planning Commission forecasts that Falls will increase the number of jobs in the Township by 4.8% from 2000 to 2010 and another 5.2% from 2010 to 2020. The DVRPC forecasted percent change 2010 to 2020 at 5.2% falls behind Bucks County at 9.1% and the 5-County Region at 6.2%. In terms of importance in Bucks County, Falls ranks among the top five municipalities on number of jobs and is expected to maintain that rank through the year 2020.

Comment: Lower Bucks communities account for six of the top ten employers in the County (Falls ranks 5th). When jobs per population are evaluated, Doylestown ranks the highest at 1.32 jobs per resident - the largest "job importer" in the County. Falls Township ranks 9th out of the top ten at 0.45 jobs per resident (Bristol Township is lowest at 0.36).

The median of jobs per resident for the top 10 employers is 0.61 and perhaps this would be a good target for job growth during the next ten years (or an increase of an additional 5,579 jobs).

Top 10 Employment Municipalities in Bucks County, 2000 and 2020.

Area Name	2000 Forecast			2020 Forecast		
	Job Rank	Jobs	% of all County Jobs	Job Rank	Jobs	% of All County Jobs
Bensalem Township	1	36,630	13.5%	1	38,040	12.8%
Middletown Township	2	25,420	9.3%	2	32,110	10.8%
Bristol Township	3	20,780	7.6%	3	20,770	7.0%
Warminster Township	4	19,050	7.0%	4	20,040	6.8%
Falls Township	5	15,520	5.7%	5	16,270	5.5%
Doylestown Borough	6	10,890	4.0%	6	10,970	3.7%
Lower Southampton	7	10,160	3.7%	8	10,560	3.6%
Northampton Township	8	10,020	3.7%	7	10,700	3.6%
Quakertown Borough	9	7,870	2.9%	10	7,810	2.6%
Bristol Borough	10	7,780	2.9%	9	8,000	2.7%
Bucks County, PA		271,880			296,610	100.0%

Source: Delaware Valley Regional Planning Commission, Population and Employment Forecasts, 2000-2025, 9-County DVRPC Region, Publication #73, March, 2002.

Chapter 5

DETAILED DEMOGRAPHIC PROFILE

The following report presents selected population, housing, and economic characteristics for Falls Township. When applicable, data for Bucks County, and the Delaware Valley 5-County Pennsylvania Region are included in order to enable comparisons with regional trends. The 5-County Region being utilized in this report encompasses Bucks, Chester, Montgomery, Delaware, and Philadelphia Counties. Data were obtained from various sources but primarily consist of the information collected and compiled by the U.S. Bureau of the Census. Other data sources include the Delaware Valley Regional Planning Commission (DVRPC) and the Bucks County Planning Commission.

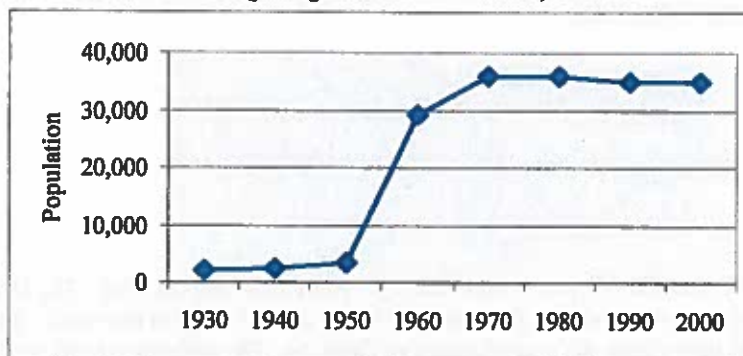
The intent of this report is to highlight past and future growth patterns for purposes of community planning for the future.

POPULATION

As can be seen from Figure 1 below, Falls Township's residential population had been hovering around 2,000 through the 1930s and 1940s. It was in the 1950s, however, that things changed dramatically for the Township as it was during this decade that the nation underwent a massive shift toward suburbanization largely aided by the construction of the interstate highway system, wider availability of automobiles, and low interest mortgages through the GI Bill of Rights for returning World War II veterans. It was also in this decade that United States Steel Corporation announced plans to construct a steel plant on the Delaware River, in Falls Township. This made lower Bucks County, and particularly Falls Township, ripe for development. William Levitt, of Levitt & Sons, a renowned developer in New York, saw the potential of the area and purchased more than 5,700 acres in four municipalities in Bucks County for the eventual construction of 17,311 units. Levittown, as the development is known, crosses four municipalities of which Falls Township is one. It is as a result of these combined forces that Falls experienced a population growth rate of nearly 722% in one decade, the 1950s.

During the 1960's the Township continued to add to its population though at a much more moderate rate (23.2 percent over 10 years), and by the 1970's the rate of growth had declined to the nearly static level of less than 1 percent. The next two decades realized a slight loss in population for the Township (36,083 residents in 1980 and 34,865 residents in 2000, a decline of 3.50% in 20 years). Overall, however, the Township's population has remained fairly consistent vacillating slightly between 35,000 and 36,000 for over 30 years.

FIGURE 1:
Falls Township Population Growth, 1930 - 2000



Source: US Bureau of the Census, 1930 - 2000

TABLE 1 below provides specific population data from 1950 to 2000.

**TABLE 1:
Falls Population and Percentage Change, 1950 – 2000**

Year	Population	Numeric Change (previous Census)	Percentage Change (previous Census)
1950	3,540		
1960	29,082	25,542	721.50%
1970	35,850	6,768	23.20%
1980	36,083	233	0.60%
1990 ¹	35,047	-1,036	-2.80%
2000	34,865	-182	-0.50%

Source: 1980-2000 Census Population by Minor Civil Division (28-county Service Area). *The Delaware Valley Regional Planning Commission, Publication No. 67, December 2001* 1950-1970 from US Census Bureau as prepared by the Bucks County Planning Commission.

As shown in TABLE 2, Falls Township experienced a decline in population over the last two decades, for a total decline of 3.4%. However, despite recent loss in population, Falls has increased in population 19.9% since 1960. For comparison, Bucks County as a whole saw two decades of growth of over 10% in both the 1980's and 1990's. Total number of residents in Bucks County grew by almost one fourth (24.7%) in twenty years. The 5-County Region also experienced growth albeit at a smaller rate than Bucks County alone. Residents of this Region gradually increased 1.3% in the 1980's, 3.1% in the 1990's, for a total increase of 4.5% in twenty years.

**TABLE 2:
Population and Percentage Change
Falls Township, Bucks County, and the 5-County Region, 1980-2000**

Municipality	1980	1990	Absolute change 1980-1990	% Change 1980-1990	2000	Absolute Change 1990-2000	% Change 1990-2000	Absolute Change 1980-2000	% Change 1980-2000
Falls Twp.	36,083	35,047	-1,036	-2.9%	34,865	-182	-5%	-1218	-3.4%
Bucks Co.	479,180	541,174	61,994	12.9%	597,635	564,461	10.4%	118,455	24.7%
5-County Region	3,682,450	3,728,991	46,541	1.3%	3,849,647	120,656	3.1%	167,197	4.5%

Source US Census, 1980, 1990, 2000

¹ There are minor discrepancies on population totals for Falls Township in 1990. The DVRPC in their publication #67 shows a total population for Falls in 1990 at 35,047, used in this table. The Census, on their site (www.census.gov) shows the total depicted in Table 5a. The difference is 50, and is negligible in terms of overall impact on our understanding of the characteristics and growth in population for Falls Township.

TABLE 2a below presents population figures for Falls Township, the communities surrounding Falls, Bucks County and the 5-County region. These six communities listed below, representing 11 percent of the 54 municipalities in Bucks County, comprised 30 percent of the County's total population in 2000.

**TABLE 2a:
Population and Percentage of Total County Population
Falls Township, Adjacent Communities Bucks County,
and the 5-County Region, 2000**

Municipality	Population	Percentage of County Population
Falls township	34,865	5.8%
Bristol township	55,542	9.3%
Lower Makefield township	32,681	5.5%
Middletown township	44,141	7.4%
Morrisville borough	10,019	1.7%
Tullytown borough	2,031	0.3%
Bucks Co.	597,635	100.0%
5-County Region	3,849,647	n/a

Source US Census, 1980, 1990, 2000

Population Projections:

The Delaware Valley Regional Planning Commission has prepared population forecasts through 2025. TABLE 3 below presents the forecasts for Falls Township, Bucks County, and the 5-County Region. These forecasts show a turning point from previous decades of minor loss to population gains.

According to these forecasts, Falls Township can anticipate a minor decrease in population in the present decade 2000-2010. There will be 75 fewer residents in Falls in the year 2010, by forecasts, equivalent to a 0% population change. The township can then expect slow but steady growth through the next 15 years, to 2025. Overall, Falls is projected to gain 2% in population from 2000-2025. Actual population is expected to increase by 595 residents. Bucks County is expected to steadily increase in population, from 597,635 residents in 2000 to a total of 748,120 residents in 2025. This represents a growth of 25% in 25 years. The 5-County Region also is expected to gain population, more moderately than Bucks County, but more rapidly than Falls Township. The rate of growth forecasted in the 5-County Region is a total of 9.2% over 25 years, raising the total population from 3,849,647 to 4,203,094 residents.

TABLE 3
Population Forecasts and Change to 2025
Falls Township, Bucks County, and the 5-County Region 2000 - 2025

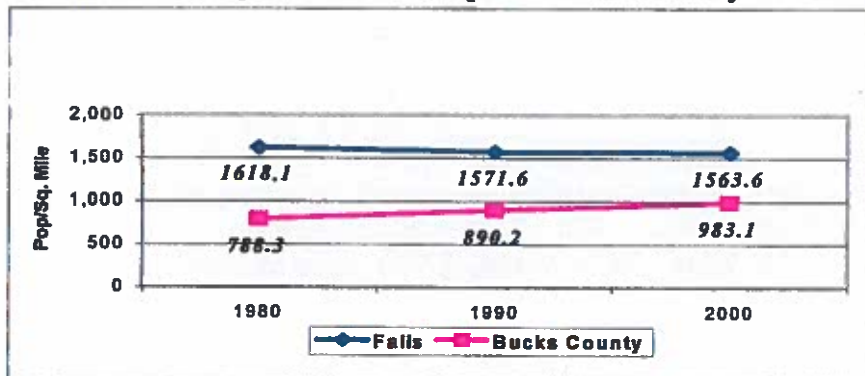
Area Name	2000 Census population	2005 Forecast	2010 Forecast	2015 Forecast	2020 Forecast	2025 Forecast
Falls Township	34,865	34,900	34,790	35,290	35,400	35,460
Bucks County, PA	597,635	634,250	662,400	688,660	719,610	748,120
5-County Region	3,849,647	3,921,530	3,979,850	4,064,250	4,148,292	4,203,094
Area Name	2000-2010 Absolute Change	2000-2010 Percent Change	2010-2020 Absolute Change	2010-2020 Percent Change	2000-2025 Absolute Change	2000-2025 Percent Change
Falls Township	(75)	0%	610	2%	595	2%
Bucks County, PA	64,765	11%	57,210	9%	150,485	25%
5-County Region	130,203	3.3%	168,442	4.2%	353,447	9.2%

Source: Population and Employment Forecasts, 2000 – 2025, 9-County DVRPC Region. *The Delaware Valley Regional Planning Commission, Publication No. 73, March 2002.*

Population Density:

The population density of Falls Township has slightly decreased as the actual number of residents has decreased. The density of Falls was 1,618.1 persons per square mile in 1980. In 2000, the density dropped slightly to 1,563.5 persons per square mile. Falls is a more densely populated area than the whole of Bucks County. In Bucks County, the density rate has increased from 788.3 persons in 1980 to 983.1 persons per square mile in 2000. See Figure 2 below.

FIGURE 2:
Population Density: Falls Township and Bucks County 1980-2000



Source: US Bureau of the Census, 1980, 1990 and 2000.

Select Characteristics of Population:

The US Census, in addition to collecting information on numbers of population, also strives to secure information on the characteristics of the US population. The following section presents information on a variety of characteristics for the population of Falls Township, Bucks County and the 5-County Region.

Age of Population

As Table 4a and Figure 3 below demonstrate, the age distributions for Falls Township, the County, and the 5-County Region are very similar. The largest differences are found in the age groups 20-44 and 45-64, specifically the subcategories 25-34 and 34-44, that for Falls Township, comprise 30.6% of the total population. The 45-54 cohort adds another 15.1% for a total of 45.6% of the total population in this middle age cohort of the population. The residents of Falls Township are slightly younger than the County's and the 5-County Region's residents. Slightly over 65 percent (65.6%) of Falls' population is below the age of 45. In keeping, the school-aged population (5-19 years of age) is slightly larger than both the County and the 5-County Region. The median age in 2000 of Falls Township was 36.4. The County median age was slightly older at 37.7.

Median Age in 2000:

Falls Township: 36.4

Bucks Co.: 37.7
Chester Co.: 36.9
Delaware Co.: 37.4
Montgomery Co.: 38.2
Philadelphia Co.: 34.2

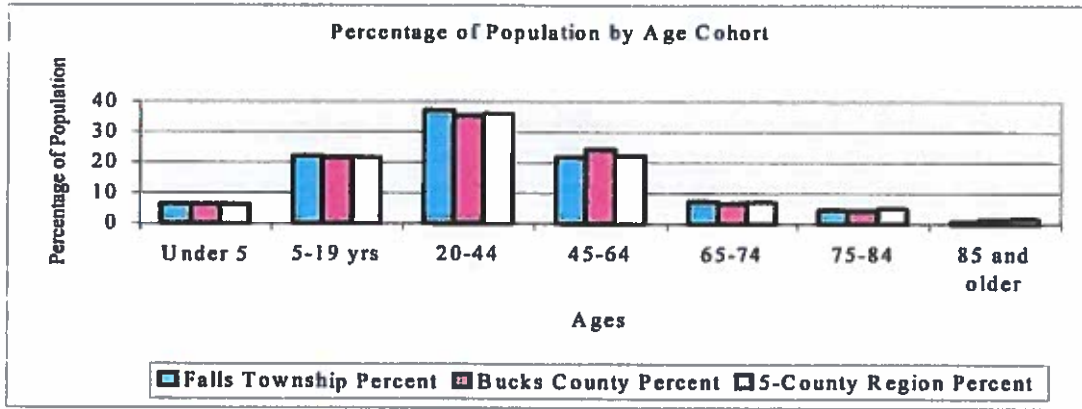
**TABLE 4a:
Age Cohorts
Falls Township, Bucks County, and the 5-County Region, 2000**

AGE Group	Falls Township		Bucks County		5-County Region	
	Number	Percent	Number	Percent	Number	Percent
Under 5	2,153	6.3	38,288	6.4	247,463	6.4
5-19	7,696	22.1	128,592	21.5	828,550	21.5
20-44	12,985	37.2	211,603	35.4	1,385,820	36.0
45-64	7,606	21.8	145,058	24.3	851,855	22.2
65-74	2,554	7.3	39,983	6.7	271,774	7.1
75-84	1,620	4.6	25,888	4.3	197,271	5.1
85 and older	251	0.7	8,223	1.4	66,914	1.7

Source: US Census, 2000

The 65 and older group, which includes the three intervals of 65 – 74, 75 – 84 and 85+, comprises 12.6 percent of the Township's total population as compared to 12.4 % and 13.9% of the County and the 5-County Region respectively. Falls' total population in the 85+ range is significantly smaller (0.7%) compared to the Bucks County and the 5-County Region (1.4% and 1.7% respectively).

FIGURE 3a:
Age Cohorts as a Percentage of Total Population,
Falls Township, Bucks County, and 5-County Region,
2000



Source: US Census, 2000

Table 4b below presents the age distribution for Falls Township, adjacent communities, Bucks County and the 5-County Region for 2000.

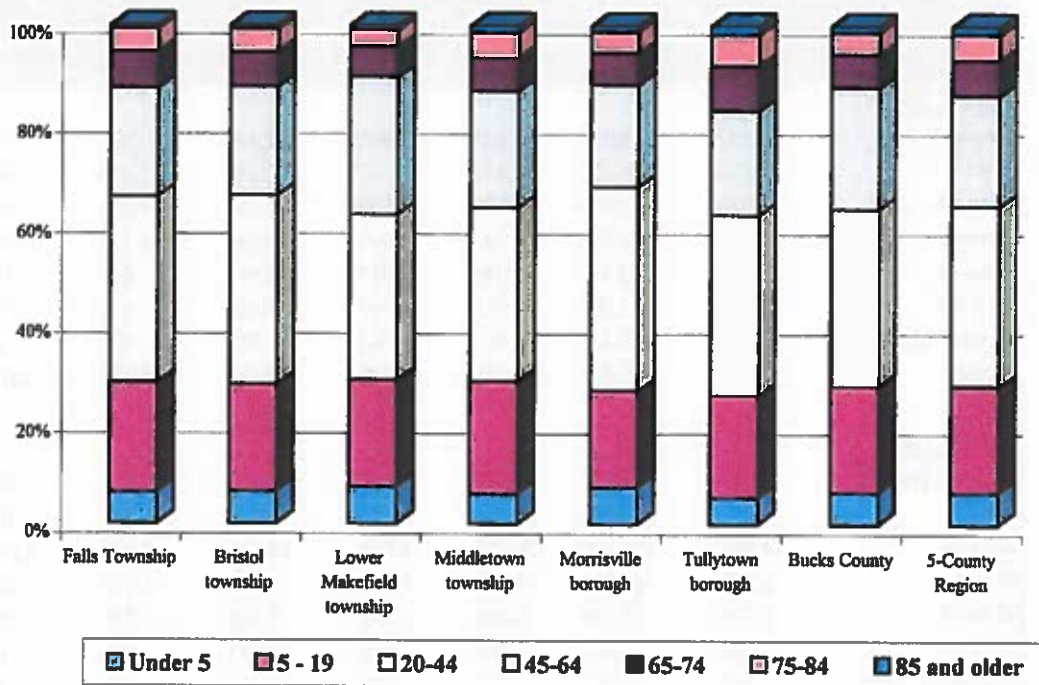
TABLE 4b:
Age Cohorts
Falls Township, Adjacent Communities, Bucks County,
and the 5-County Region, 2000

AGE	Falls Township		Bristol township	Lower Makefield township	Middletown township	Morrisville borough	Fullytown borough	Bucks County	5-County Region	
	Number	Percent	Percent	Percent	Percent	Percent	Percent	Number	Percent	
Under 5	2,153	6.3	6.5	7.4	6.0	7.4	5.3	6.4	6.4	
5 - 19	7,696	22.1	21.5	21.5	22.7	19.5	20.7	21.5	21.5	
20-44	12,985	37.2	37.8	33.1	34.8	40.7	36.0	35.4	36.0	
45-64	7,606	21.8	21.7	27.5	23.3	20.5	20.8	24.3	22.2	
65-74	2,554	7.3	7.1	6.2	6.8	6.3	9.1	6.7	7.1	
75-84	1,620	4.6	4.6	3.3	5.0	4.3	6.2	4.3	5.1	
85+	251	0.7	0.8	0.9	1.4	1.2	1.8	1.4	1.7	
Total	34,865	100.0	55,542	32,681	44,141	10,019	2,031	597,635	3,849,647	

Source: US Census, 2000

And, Figure 3b below graphically displays the age distribution for Falls Township, the adjacent communities, Bucks County and the 5-County Region for 2000.

FIGURE 3b:
Age Cohorts as a Percentage of Total Population,
Falls Township, Adjacent Communities, Bucks County, and 5-County Region, 2000



Source: US Census, 2000

Table 4c below presents age cohort information over time (1990 to 2000) for Falls Township, Bucks County, the 5-County Region and the communities adjacent to Falls. The distribution of population by age cohort over time is important in understanding the composition of a community.

Despite an overall slight loss in population from 1990 to 2000 in Falls Township, several age cohorts experienced enormous gains, nearly doubling in size. From 1990 to 2000, the Township's population 65 and older increased by 692 people for an 18.5 percent increase over 10 years. Most of that increase occurred in the older groupings, i.e. 75-84 and 85+. Younger cohorts, particularly those between the ages of 20 and 44, and related, the very young (under 5 years of age) experienced a decline throughout the 1990s. We see similar patterns in most of the adjacent communities. Lower Makefield's distribution stands out in comparison largely because no cohort experienced any decline throughout the 1990s.

TABLE 4c:
Age Cohorts 1990 – 2000, Falls Township, Adjacent Communities, Bucks County,
and 5-County Region, 2000

	Falls Township	Bucks County	Lower					5-County Region
			Bristol township	Makefield township	Middletown township	Morrisville borough	Tullytown borough	
YEAR 2000								
Under 5 years	2,153	38,288	3,645	2,457	2,567	737	116	247,463
5 to 19	7,696	128,592	12,161	7,047	10,210	1,948	443	828,550
20 to 44	12,985	211,603	20,777	10,704	15,267	4,023	713	1,385,820
45 to 64	7,606	145,058	11,892	9,090	10,348	2,111	415	851,855
65 to 74	2,554	39,983	4,046	2,017	2,956	630	183	271,774
75 to 84	1,620	25,888	2,543	1,099	2,083	445	130	197,271
85 years & over	251	8,223	457	267	710	129	31	66,914
Total	34,865	597,635	55,521	32,681	44,141	10,023	2,031	3,849,647
YEAR 1990								
Under 5 years	2,565	39,755	4,551	1,785	3,367	718	178	267,701
5 to 19	7,297	113,068	12,434	5,467	9,176	1,792	482	731,427
20 to 44	14,666	220,720	23,318	9,774	18,025	4,148	1,009	1,478,931
45 to 64	6,736	108,719	10,808	5,961	7,956	1,763	411	723,322
65 to 74	2,774	36,195	4,448	1,437	2,650	791	182	308,213
75 to 84	814	17,060	1,297	530	1,273	454	60	167,950
85 years & over	145	5,657	273	129	616	99	17	51,365
Total	34,997	541,174	57,129	25,083	43,063	9,765	2,339	3,728,909
PERCENT CHANGE, 1990 - 2000								
Under 5 years	-19.1%	-3.8%	-24.9%	27.4%	-31.2%	2.6%	-53.4%	-8.2%
5 to 19	5.2%	12.1%	-2.2%	22.4%	10.1%	8.0%	-8.8%	11.7%
20 to 44	-12.9%	-4.3%	-12.2%	8.7%	-18.1%	-3.1%	-41.5%	-6.7%
45 to 64	11.4%	25.1%	9.1%	34.4%	23.1%	16.5%	1.0%	15.1%
65 to 74	-8.6%	9.5%	-9.9%	28.8%	10.4%	-25.6%	0.5%	-13.4%
75 to 84	49.8%	34.1%	49.0%	51.8%	38.9%	-2.0%	53.8%	14.9%
85 years & over	42.2%	31.2%	40.3%	51.7%	13.2%	23.3%	45.2%	23.2%
Total	-0.4%	9.4%	-2.9%	23.2%	2.4%	2.6%	-15.2%	3.1%

Source: US Bureau of the Census, SF-1, 2000 and STF-1 from the 1990 Census.

Gender

The distribution of the population by gender is approximately equal for select geographies under study, as can be seen in Table 5 below.

TABLE 5:
Total Population and Population by Gender
Falls Township, Bucks County, and 5-County Region 2000

	Total		Male		Female	
	Population		No.	Percent	No.	Percent
Falls Township	34,865		16,975	48.7%	17,890	51.3%
Bucks Co.	597,635		293,182	49.1%	304,453	50.9%
5-County Region	3,849,647		1,836,406	47.7%	2,013,241	52.3%

Source: US Census, 2000.

Race

According to a report by the Delaware Valley Regional Planning Commission on racial composition in the Philadelphia region², the 5-County Region has become more racially diverse over the decade of the 1990s. As of the 2000 Census, 29.5% of the 5-County Region's population was non-white, up from 24.9% in 1990. While remaining the least racially diverse of the 5 counties in the region, Bucks County increased in non-white population by 67% from 1990 to 2000, second only to Montgomery County, where the non-white population grew by 75% over the same period.

The racial distribution of Falls Township, shown in Table 6a, is similar to the County's overall racial distribution in 2000, though there are some variations. Falls has a total population of 34,869 and of these residents, 31,629 are white (90.7%). Black/African American is the second largest racial grouping in Falls, accounting for 4.1% of the Township's population. The County has a slightly higher percentage of whites (92.5%), and slightly lower percentage of Blacks (3.1%) than Falls Township. The racial composition of the Township and the County are however, more homogeneous than that of the 5-County Region overall. This is largely due to the fact that Philadelphia County is not only a part of the 5-County Region, but accounts for 39.4% of the 5-County population, and in Philadelphia, 54.9% of the population was non-white in 2000.

TABLE 6a:
Population by Race
Falls Township, Bucks County and the 5-County Region, 2000

	Falls Township	Bucks County	Chester County	Delaware County	Montgomery County	Philadelphia County	5-County Region
White alone	90.7%	92.5%	89.2%	80.3%	86.5%	45.1%	70.5%
Black or African American alone	4.1%	3.1%	6.1%	14.4%	7.4%	43.1%	21.6%
American Indian and Alaska Native alone	0.1%	0.1%	0.2%	0.1%	0.1%	0.3%	0.2%
Asian alone	3.1%	2.4%	2.0%	3.3%	3.9%	4.3%	3.5%
Native Hawaiian and Other Pacific Islander alone	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Some other race alone	1.1%	0.8%	1.3%	0.5%	0.7%	4.7%	2.4%
Two or more races	0.8%	1.1%	1.2%	1.3%	1.3%	2.5%	1.7%
Total Population	34,869	597,635	433,501	550,864	750,097	1,517,550	3,849,647

Source: US Census, SF3 data, 2000.

TABLE 6b:
Racial Composition,
Falls Township, 1990 and 2000

	1990	2000
Total Population	34,997	34,865
Percentage White	94.3%	90.7%
Percentage Non-White	5.7%	9.3%

Source: US Census, SF1, SF3, 2000; STF1, STF3, 1990.

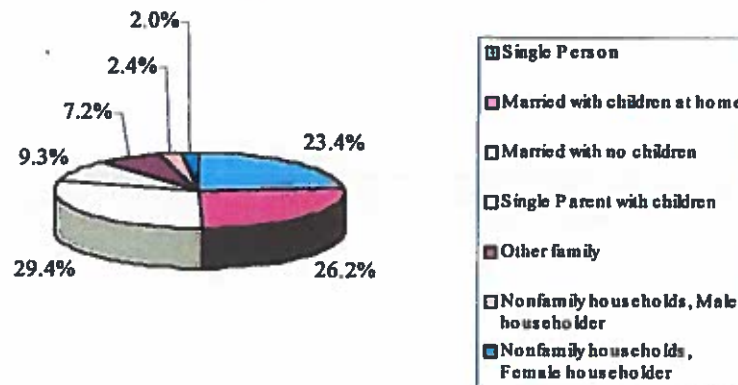
As we can see from Table 6b, the increased racial diversity of Bucks County through the 1990s was echoed in Falls Township.

² *Twenty Years of Diversification: Minority Population County, 9-County DVRPC Region. Analytical Data Report, No. 7, Delaware Valley Regional Planning Commission, November 2001.*

Household Characteristics

Household composition information is illustrated in Figure 4 and Table 7 below. Two types of householders (households) are distinguished by the Census: a family householder and a non-family householder. A family householder is a householder living with one or more people related to him or her by birth, marriage, or adoption. The householder and all people in the household related to him or her are family members. A non-family householder is a householder living alone or with non-relatives only. Households are then classified by type according to the sex of the householder and the presence of relatives. Examples include: married-couple family; male householder, no wife present; female householder, no husband present; spouse (husband/wife); child; and other relatives.³

FIGURE 4:
Falls Township Household Composition, 2000
 (percentage of total households)



Source: US Bureau of the Census, 2000

Falls Township primarily consists of family households (71.4%) of which more than half (54.4%) are married couple families and 12.1% are female-headed families. This pattern is similar to that found in Bucks County where 73.6% of all households are *family households* and of those, 61.2% are married couple families while 8.8% are female-headed.

The 5-County region maintains the largest percentage of householders living alone (28.3 percent of all households), while Bucks County reports the lowest (21.5 percent). Bucks County also reports the lowest percentage of households where the householder is 65 years or over and living alone, when comparing these three geographies.

Average household size is essentially equal (2.64 in Falls and 2.69 in Bucks County). Average family size is also comparable (3.15 in Falls, and 3.17 in Bucks).

³ US Census, glossary. See www.census.gov.

**TABLE 7:
Household Composition
Falls Township, Bucks County and 5 PA Counties, 2000**

	Falls Township		Bucks County		5 PA Counties	
	Number	Percent	Number	Percent	Number	Percent
Total households	13,170	100.00%	218,725	100.00%	1,459,119	100.00%
Families	9,407	71.40%	160,946	73.60%	963,673	66.00%
Non-family Household	3,763	28.60%	57,779	26.40%	495,446	34.00%
<i>Householder Alone</i>	3,084	23.40%	46,956	21.50%	412,465	28.30%
<i>Householder 65 and over</i>	1,186	9.00%	17,649	8.10%	151,672	10.40%
Average household size	2.64		2.69		N/A	See footnote ⁴
Average Family size	3.15		3.17		N/A	

Source: US Census, 2000.

Group Homes

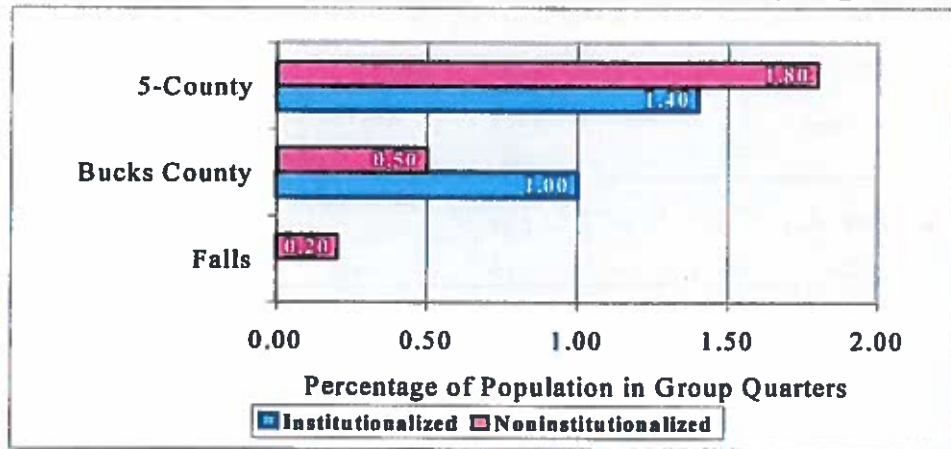
Another indicator of community character is the presence of group homes⁵. Figure 5 below illustrates the percentage of group homes in Falls, Bucks County and the 5-County Region. The Census classifies group homes into two types: institutional and non-institutional. Institutional group homes include, for example, correctional facilities, nursing homes, and mental hospitals. Non-institutional group homes include college dormitories, military barracks, group homes, missions, and shelters. Falls has a significantly lower percentage of group homes (0.2%) than both the County, where 1.7% of the population resides in group homes, and the 5-County Region, where 3.2% of the population resides in group homes. All 58 persons residing in group homes in Falls Township do so in non-institutionalized settings.

⁴ Averages for the 5-County region as a whole are not readily available. Each County's average household size and family size has, therefore, been provided for comparison purposes.

Household and Family Size (average), 2000	Avg. household size, 2000	Avg. Family Size, 2000
Chester County	2.65	3.15
Delaware County	2.56	3.17
Montgomery County	2.54	3.09
Philadelphia County	2.48	3.22

⁵ Population in group quarters, according to the Census, "includes all people not living in households. This term includes those people residing in group quarters as of the date on which a particular survey was conducted. Two general categories of people in group quarters are recognized: 1) the institutionalized population which includes people under formally authorized supervised care or custody in institutions at the time of enumeration (such as correctional institutions, nursing homes, and juvenile institutions) and 2) the non-institutionalized population which includes all people who live in group quarters other than institutions (such as college dormitories, military quarters, and group homes). The non-institutionalized population includes all people who live in group quarters other than institutions." See glossary of definitions, www.census.gov.

**FIGURE 5:
Persons in Group Homes as a percentage of Total Population:
Falls Township, Bucks County and the 5 PA County Region**



Source: US Census, 2000.

Educational Attainment

Table 8a below presents a distribution of educational attainment for residents, 25 and older, of Falls Township, Bucks County and the 5-County Region.

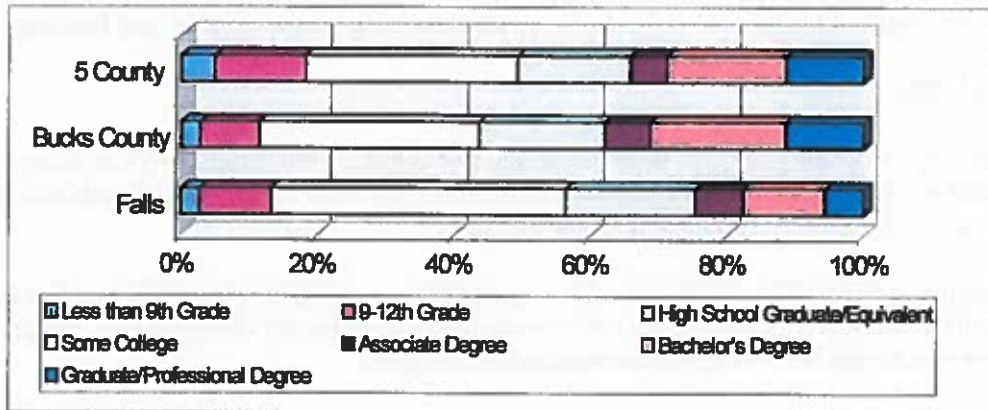
**TABLE 8a:
Educational Attainment by Number and Percentage
in Falls, Bucks County, and the 5-County Region, 2000**

	Falls Township		Bucks County		5-County Region	
	Number	Percentage	Number	Percentage	Number	Percentage
Less than 9th Grade	606	2.61%	11,078	2.75%	122,948	4.85%
9th-12th, No diploma	2,459	10.61%	34,851	8.66%	340,180	13.42%
High School Graduate (includes Equivalent)	10,011	43.18%	129,764	32.23%	787,539	31.06%
Some college, no degree	4,392	18.95%	74,209	18.43%	417,429	16.46%
Associates Degree	1,649	7.11%	27,085	6.73%	138,499	5.46%
Bachelor's Degree	2,748	11.85%	79,834	19.83%	441,167	17.40%
Graduate of Professional Degree	1,317	5.68%	45,754	11.37%	287,871	11.35%

Source: US Bureau of the Census, 2000

The data presented in Table 8a above have been graphically displayed in Figure 6.

**FIGURE 6:
Educational Attainment Educational by Percentage
Falls Township, Bucks County, and 5-County Region, 2000**



Source: US Bureau of the Census, 2000 (SF3)

Compared to Bucks at 2.75 percent and the 5-County Region at nearly 5 percent, Falls Township has the lowest percentage of persons with a less than 9th grade education (2.61 percent). Patterns of educational attainment for categories through “Some college, but no degree,” are similar to that of Bucks County and the 5 Pennsylvania Counties in total. And, while associates degrees are more prevalent in Falls than in either the County or the 5-County region, bachelor’s degrees and graduate and professional degrees are less common.

As has been the case nationally, levels of education have been on the rise in Falls and the County. From 1990 to 2000, both Falls Township and Bucks County witnessed increases in the percentage of their population 25 and older in the higher educational categories. Table 8b presents education information for the Township and the County from 1990 to 2000.

**TABLE 8b:
Educational Attainment by Percentage, 1990 - 2000
Falls Township and Bucks County**

	Falls Township		Bucks County	
	1990	2000	1990	2000
Less than High School Degree	17.6%	13.2%	17.1%	11.4%
High School Graduate (includes Equivalent)	44.4%	43.2%	34.2%	32.2%
Some College or Associates Degree	23.7%	26.1%	23.8%	25.2%
Bachelor's Degree	9.5%	11.9%	16.3%	19.8%
Graduate of Professional Degree	4.9%	5.7%	8.5%	11.4%

Source: US Census, 1990 & 2000.

HOUSING

This section of the report details data and information on housing, specifically data related to housing unit counts, housing unit projections, selected housing characteristics, and housing value.

Housing Units

The Township's housing stock has been increasing through the 1980's and 1990's as shown in Table 9 below. In 1980, there were 12,450 housing units, by 1990 the number of units had grown by 6.9%, to 13,307, and by 2000 had reached 13,522.

Bucks County and the 5-County Region also experienced growth in housing units over the last 20 years. Falls Township's growth most closely resembles that of the 5-County Region, but grew at the lowest rate during the 1990s, when compared to the others.

**TABLE 9:
Housing Units and Percentage Change
Falls Township, Bucks County, and 5-County Region, 1980 - 2000**

	Falls Township		Bucks County		5 PA County Region	
	# of Units	%Change	# of Units	%Change	# of Units	%Change
1980	12,450	NA	164,892	NA	1,393,800	NA
1990	13,307	6.9%	199,934	21.3%	1,491,310	7.0%
2000	13,522	1.6%	225,498	12.8%	1,565,641	5.0%

Source: 2000, 1990, 1980 Data: U.S. Census

It is important to note that the Township's housing stock has risen over the last two decades, despite the fact that the actual population has slightly decreased during this same time period.

Units in Structure

Analysis of the type of homes or units in the Township is important in forming an understanding of the character of the community. It is evident from Table 10 below that Falls Township has a majority of its housing stock in single-unit detached homes, 62.4% in 2000. The County's stock of single unit detached homes is only slightly higher. The 5-County Region, which includes the City/County of Philadelphia, has a significantly lower percentage of single unit detached homes, at 35.9%.

The second most prevalent structure type by percentage in Falls is the Mobile home, at 11.7%, down from 12.1% in 1990. The township also no longer has any structures classified as boat, RV, van or other⁶. Growth occurred in every other housing type in Falls with the exception of structures with 20-49 units. In this classification, there was a decrease from 10.2% in 1990 to 6.0% in 2000. The rates of growth correspond closely with Bucks County.

⁶ This may be a factor of definitional changes by the US Census from 1990 to 2000.

TABLE 10a:
Units in Structure as a Percentage of All Units
Falls Township, Bucks County, and the 5 Pennsylvania County Region, 2000

Housing Type	Falls Township				Bucks County				5-County Region	
	2000		1990		2000		1990		2000	
	#	%	#	%	#	%	#	%	#	%
1-Unit, Detached	8,435	62.40%	8,371	62.90%	144,555	64.10%	126,347	63.20%	561,806	35.90%
1-Unit, Attached	432	3.20%	293	2.20%	31,382	13.90%	24,446	12.20%	580,688	37.10%
2	152	1.10%	93	0.70%	5,752	2.60%	4,937	2.50%	84,349	5.40%
3 or 4	109	0.80%	80	0.60%	5,963	2.60%	5,050	2.50%	78,943	5.00%
5 to 9	424	3.10%	297	2.20%	8,256	3.70%	7,186	3.60%	54,976	3.50%
10 to 19	1,052	7.80%	828	6.20%	9,805	4.30%	11,258	5.60%	50,094	3.20%
20 to 49	816	6.00%	1,353	10.20%	6,278	2.80%	8,851	4.40%	45,281	2.90%
50 or more	517	3.80%	323	2.40%	7,713	3.40%	4,006	2.00%	94,156	6.00%
Mobile home	1,585	11.70%	1,612	12.10%	5,723	2.50%	5,663	2.80%	14,916	1.00%
Boat, RV, van, etc.	0	0.00%	57	0.40%	71	0.00%	2,190	1.10%	432	0.00%
Total	13,522	100.00%	13,307	100%	225,498	100%	199,959	100.00%	1,565,641	100%

Sources: U.S. Census 2000

The Bucks County Board of Assessment maintains data on types of structure for each municipality in the County. This information for Falls was obtained and the residential structures by type and percentage of residential structures are presented below in Table 10b.

TABLE 10b:
Type of Structure, Falls Township

Residential (not apartments)			
L/U Code	Description	#	% of Total within Category
1002	ranch	4,349	42.31%
1001	conventional	3,071	29.87%
1400	mobile home in park	1,478	14.38%
1005	split level	692	6.73%
1006	townhouse	200	1.95%
1004	bi-level	160	1.56%
1013	condo	82	0.80%
1023	twin	64	0.62%
1010	colonial (new)	61	0.59%
1009	colonial (old-in-town-house)	41	0.40%
1031	residential/professional	19	0.18%
1032	residential/commercial (bed & breakfast, etc.)	18	0.18%
1020	victorian	14	0.14%
1018	farm house	4	0.04%
1017	mobile home	4	0.04%
1008	cape cod	4	0.04%
1007	bungalow	4	0.04%
1040	uninhabitable/derelict house	3	0.03%
1011	multi-family (3-7 living units)	3	0.03%
1003	contemporary	2	0.02%
1140	residential conversion (6+ apartments)	1	0.01%
1100	garage apartment	1	0.01%
1056	residence with land under act 319	1	0.01%
1050	conventional	1	0.01%
1026	barn (residence)	1	0.01%
1025	cabin/cottage	1	0.01%
1016	unique	1	0.01%
Total by class		10,280	100.00%

Apartments			
L/U Code	Description		
4200	Low-rise 5 to 10 units (1 building) - 3 story or less	1	5.6%
4203	Garden type (group of low-rise) up to 50 units	1	5.6%
4204	Garden type (group of low-rise) 51 - 100 units	9	50.0%
4205	Garden type (group of low-rise) 101+ units	7	38.9%
Total by class		18	100.0%

Source: Bucks County Board of Assessment, through the Bucks County Information Services Department. Data are from February 10, 2003.

By far, the most common housing type is the ranch unit, where nearly 43 percent of the residential units (non-apartments) are of this type.

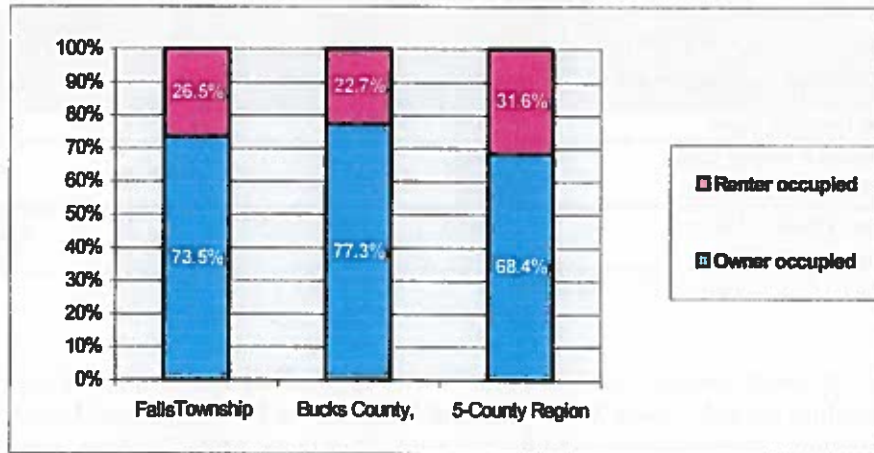
Selected Characteristics of Housing

The discussion of selected housing characteristics includes information on housing occupancy, tenure, vacancy, value, and age.

Housing Tenure

The majority of housing stock in Falls Township, Bucks County and the 5-County Region is comprised of owner-occupied units. This is illustrated in Figure 7 below. 73.52% of Falls' housing stock is owner occupied. This is 3.78% lower than the County, which has 77.3% owner occupied. The 5-County Region (68.4% of owner occupied units) trails both Falls and Bucks County. Rental units make up the remaining approximately one-quarter of the housing stock (Falls-26.48%, Bucks-22.7%). The 5-County Region has a higher rate of renter occupied units, at 31.6% of the housing stock. Table 11 provides specifics.

FIGURE 7:
Occupied Housing Units by Tenure
Falls Township, Bucks County and the 5-County Region, 2000



Source: U.S. Census, 2000

TABLE 11:
Occupied Units by Tenure,
Falls Township, Bucks County and 5-County Region, 2000

	Falls Township		Bucks County		5-County Region	
	# of Units	%	# of Units	%	# of Units	%
Total:	13,166	100%	218,725	100%	1,472,287	100%
Owner occupied	9,679	73.52%	169,177	77.3%	1,007,539	68.4%
Renter occupied	3,487	26.48%	49,548	22.7%	464,748	31.6%

Source: U.S. Census, 2000

Housing Vacancy

In 2000, the overall vacancy rate for Falls Township was 2.6%. In 1990 the vacancy rate was 5.7% for all units representing a 5 percentage point decrease in the vacancy rate over 10 years and reflects a reduction in the vacancy rate by 53%. Table 12 presents total housing units, number, percent and percentage change for occupied and vacant units in 1990 and 2000 for Falls Township.

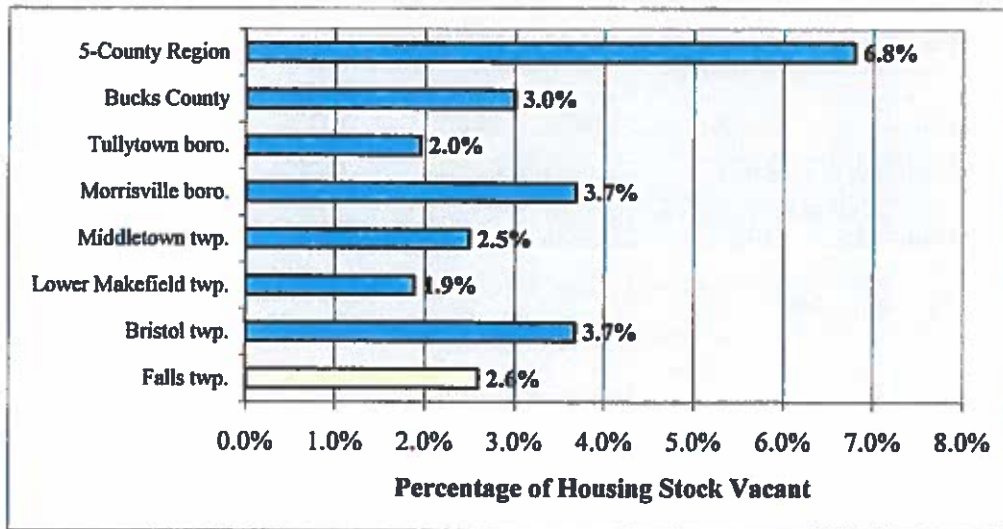
**TABLE 12:
Total Units and Vacancy Status
Falls Township, 2000**

	1990	2000	Change 1990 – 2000	
			#	%
Total Housing Units	13,307	13,522	215	2%
Occupied Housing Units	12,546	13,166	620	5%
Percent Occupied Units	94.3%	97.4%		
Vacant Housing Units	761	356	-405	-53%
Percent Vacant Units	5.7%	2.6%		

Source: U.S. Census, 1990 and 2000

Figure 8 below presents vacancy rates for Falls Township; municipalities surrounding Falls Township including Bristol, Lower Makefield, and Middletown Townships and Morrisville and Tullytown Boroughs; Bucks County; and the 5-County Region in 2000. Vacancy rates range from a low of 2.6% in Falls Township to a high of 7.2% in the 5-County Region. The County's vacancy rate is 3.0%.

**FIGURE 8:
Vacancy Rates for Fall Township, Surrounding Communities, Bucks County and the 5-County Region, 2000**



Source: U.S. Census, 2000

Falls Township's very low vacancy rate suggests a strong and popular housing market and is perhaps symptomatic of few housing starts throughout the 1990s.

Age of Housing Stock

A majority of the housing stock in the Township was built in the 1950s (nearly 50%). The second most prolific time period of construction is the 1960s and 1970s, when 33% of the housing units were built.

TABLE 13:
Select Characteristics of Housing: Falls Township

<i>Year Structure Built</i>	<i>#</i>	<i>%</i>
1999 to March 2000	72	0.5%
1995 to 1998	207	1.5%
1990 to 1994	365	2.7%
1980 to 1989	1,289	9.5%
1970 to 1979	2,274	16.8%
1960 to 1969	2,197	16.2%
1940 to 1959	6,747	49.9%
1939 or earlier	371	2.7%
TOTAL	13,522	100.0%

Source: U.S. Census, 2000

Housing Value and Rent

This section provides data pertaining to the value of owner occupied housing units and rent. A majority of Falls Township's housing is in the \$100,000-150,000 range (67.5%), with most homes ranging from \$50,000-299,999. The median value of owner occupied housing in Falls Township is \$123,700.

TABLE 14:
Housing Value: Falls Township, Bucks County, The Counties Comprising the 5-County Region and the Aggregate 5-County Region, 1999

Specified Owner-Occupied units: Housing Value	Falls Township		Bucks County		Chester County	Delaware County	Montgomery County	Phila. County	5 P A County Total
	#	%	#	%	%	%	%	%	%
Less than \$50,000	62	0.8%	865	0.6%	0.8%	6.2%	0.8%	38.4%	14.8%
\$50,000 to \$99,999	844	10.4%	14,795	9.8%	9.6%	28.6%	11.7%	46.5%	25.9%
\$100,000 to \$149,999	5,476	67.5%	47,896	31.8%	23.8%	26.6%	31.0%	9.7%	22.1%
\$150,000 to \$199,999	1,422	17.5%	40,149	26.7%	23.2%	19.4%	25.6%	2.9%	16.6%
\$200,000 to \$299,999	279	3.4%	31,666	21.0%	25.4%	11.4%	18.4%	1.4%	12.6%
\$300,000 to \$499,999	20	0.2%	12,238	8.1%	13.4%	5.5%	8.6%	0.6%	5.8%
\$500,000 to \$999,999	9	0.1%	2,661	1.8%	3.3%	2.0%	3.1%	0.4%	1.8%
\$1,000,000 or more	0	0.0%	251	0.2%	0.4%	0.3%	0.8%	0.1%	0.3%
Total Valid Units ⁷	8,112	100.0%	150,521	100.0%	106,254	138,211	190,477	315,437	900,901
Median value (dollars)	\$123,700		\$163,200		\$182,500	\$128,800	\$160,700	\$59,700	n/a

Source: U.S. Census, 2000

⁷ Not all householders of owner-occupied units responded to the question on value on the Census form. Total owner occupied units = 9,679. Total responding to the question on value was 8,112, for a non-response of 16 percent. Non-response is a common problem on questions related to income and housing value. Respondent's are either hesitant to answer or do not know the value and subsequently leave the question blank. Throughout this report, the term "valid" will be used to designate the total number responding to the question and not the total number in the universe.

According to the data contained in Table 15, a majority of rental units are in the \$500-749 range (38.0%). The second highest category of gross rent is \$750-999 (33.2%). The median value of renter occupied units in Falls Township is \$736.

**TABLE 15:
Falls Township Gross Rent, 1999**

Falls Township, 1999 Specified Renter-Occupied Units: Gross Rent	#	%
Less than \$200	202	5.8%
\$200 to \$299	124	3.6%
\$300 to \$499	175	5.0%
\$500 to \$749	1,321	38.0%
\$750 to \$999	1,151	33.2%
\$1,000 to \$1,499	429	12.4%
\$1,500 or more	9	0.3%
No cash rent	61	1.8%
TOTAL Specified Renter-Occupied (valid)	3,472	100.0%
Median rent (dollars)	\$736	

Source: U.S. Census, 2000

Falls Township's median gross rent at \$736/month is exactly in line with the County's, also at \$736/month. Compared to the other counties in the 5-County region, Falls Township's rent is slightly more affordable than the median for Chester and Montgomery Counties (see sidebar), but is more than the median found for Delaware County and the City (county) of Philadelphia.

<i>Median Gross Rent by County, 1999</i>	
<i>Bucks County</i>	<i>\$736</i>
<i>Chester County</i>	<i>\$754</i>
<i>Delaware County</i>	<i>\$662</i>
<i>Montgomery County</i>	<i>\$757</i>
<i>Philadelphia County</i>	<i>\$569</i>

Residential Stability

Table 16 and Figure 9a present data on residence in 1995 for Falls Township, surrounding communities and Bucks County. From these data, we see that the community with the most "transient" population, i.e. the community with the greatest percentage of its population not residing in the same home in 1995 as they did in 2000, was Morrisville, where 41.2 percent of the population moved at some point (and perhaps more than once) between 1995 and 2000. The most "stable" community, i.e. the community with the lowest percentage of its population moving to a different house in the five years between 1995 and 2000, was Tullytown Borough. Falls Township is slightly more "stable" when compared to the mean for all communities under study (35% having moved), and is also more "stable" than the whole of Bucks County where 36.8 percent of the County's population moved to a different home in the five years between 1995 and 2000.

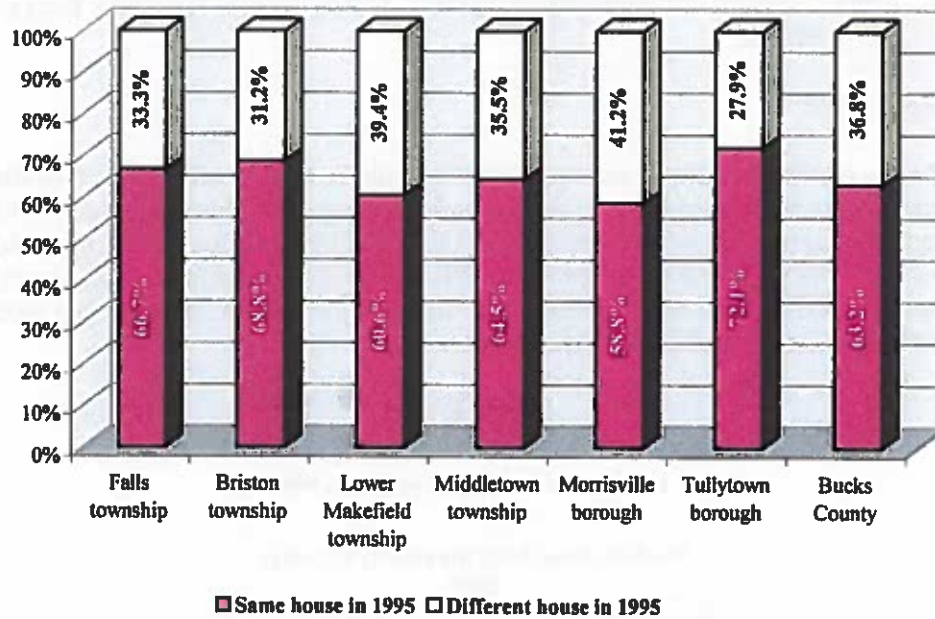
TABLE 16:
Residence in 1995 for the Population 5 Years and Over: Falls Township,
Surrounding Communities and Bucks County

	Population*	Same house in 1995	Different house in 1995
Falls township	32,666	66.7%	33.3%
Bristol township	51,926	68.8%	31.2%
Lower Makefield township	30,251	60.6%	39.4%
Middletown township	41,474	64.5%	35.5%
Morrisville borough	9,279	58.8%	41.2%
Tullytown borough	1,923	72.1%	27.9%
Bucks County	559,308	63.2%	36.8%

*see footnote #7

Source: U.S. Census, 2000

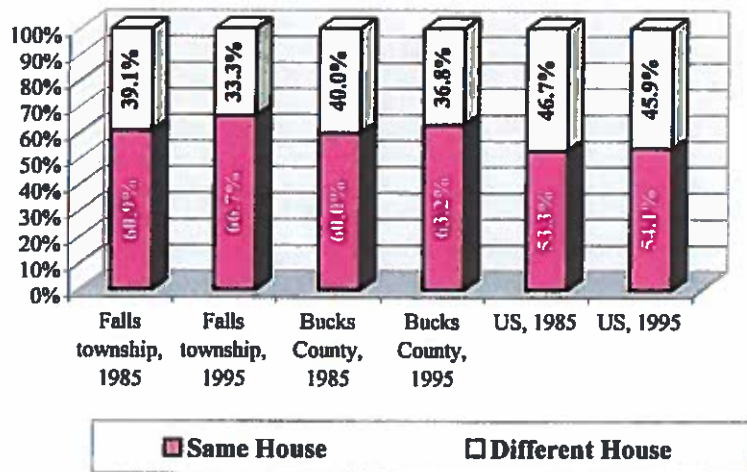
FIGURE 9a:
Residence in 1995 for the Population 5 Years and Over: Falls Township,
Surrounding Communities and Bucks County



Source: US Bureau of the Census, 2000.

Figure 9b presents information on residence over time for Falls Township, Bucks County and the Nation. We see that the pattern in the Township, the County, and Nationally is that residents were likely to remain in the same home in the 1990s than was the case in the 1980s. And, of the three geographies studied, residents of Falls Township are the most likely to stay in the same home.

FIGURE 9b:
Residence in 1985 & 1995 for the Population 5 Years and Over: Falls Township, Bucks County and the United States (US)



Source: US Bureau of the Census, 2000.

ECONOMIC/SOCIOECONOMIC

The section that follows presents information on household and family income, resident’s occupation, journey to work information, and numbers of jobs in Falls Township, Bucks County and the 5- County Region.

Household Income

At \$50,129, the median household income in 1999 in Falls Township was greater than that found in Delaware County and Philadelphia County. Bucks County’s median along with that found in Chester and Montgomery Counties exceeded that of the Falls Township in 1999, by 19%, 30.3% and 21.3% respectively. Table 17 presents the median household income for each county encompassed in the 5-County region, while 18 presents the distribution of household income for the Township, the County and the 5-County Region.

TABLE 17:
Median Household Income by County in the 5-County Region, 1999

Median household income by County, 1999	
Bucks County,	\$59,727
Chester County,	\$65,295
Delaware County,	\$50,092
Montgomery County,	\$60,829
Philadelphia County,	\$30,746

Source: US Bureau of the Census, SF3, 2000.

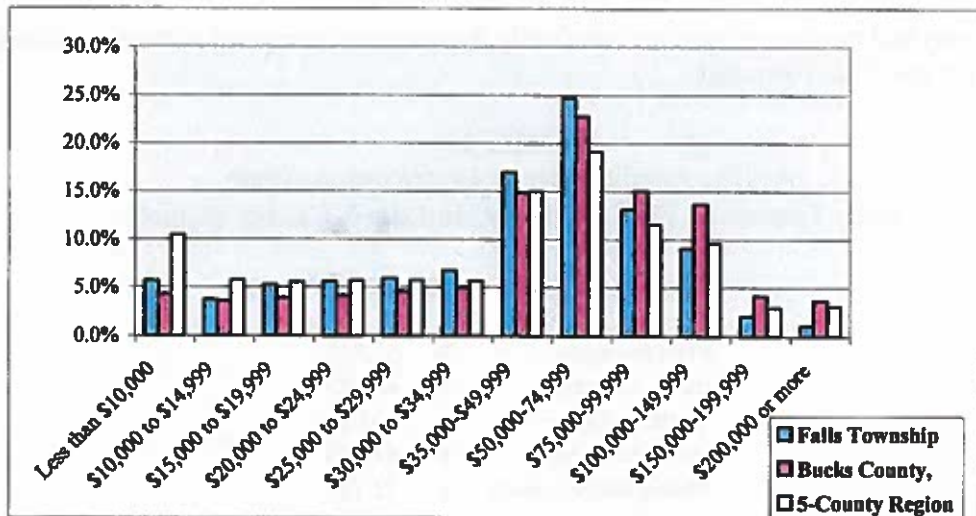
TABLE 18:
Household Income Distribution and Median Household Income, 1999:
Falls Township, Bucks County, and the Aggregated 5-County Region

	Falls Township	Bucks County	5-County Region
Less than \$10,000	5.7%	4.3%	10.4%
\$10,000 to \$14,999	3.7%	3.6%	5.7%
\$15,000 to \$19,999	5.2%	3.9%	5.5%
\$20,000 to \$24,999	5.6%	4.2%	5.6%
\$25,000 to \$29,999	5.9%	4.6%	5.7%
\$30,000 to \$34,999	6.8%	5.0%	5.7%
\$35,000-\$49,999	17.0%	14.9%	15.0%
\$50,000-74,999	24.7%	22.8%	19.1%
\$75,000-99,999	13.1%	15.1%	11.5%
\$100,000-149,999	9.1%	13.7%	9.6%
\$150,000-199,999	2.1%	4.2%	3.0%
\$200,000 or more	1.1%	3.7%	3.2%
Total (valid)	13,164	218,773	1,459,708
Median income	\$ 50,129	\$ 59,727	n/a

Source: US Bureau of the Census, 2000

Figure 10 graphically displays the household income distribution for the Township, Bucks County and the 5-County Region. Here we see clearly that the County's median household income is the highest among the three areas analyzed.

FIGURE 10:
Household Income Distribution, 1999: Falls Township, Bucks County and the 5-County Region

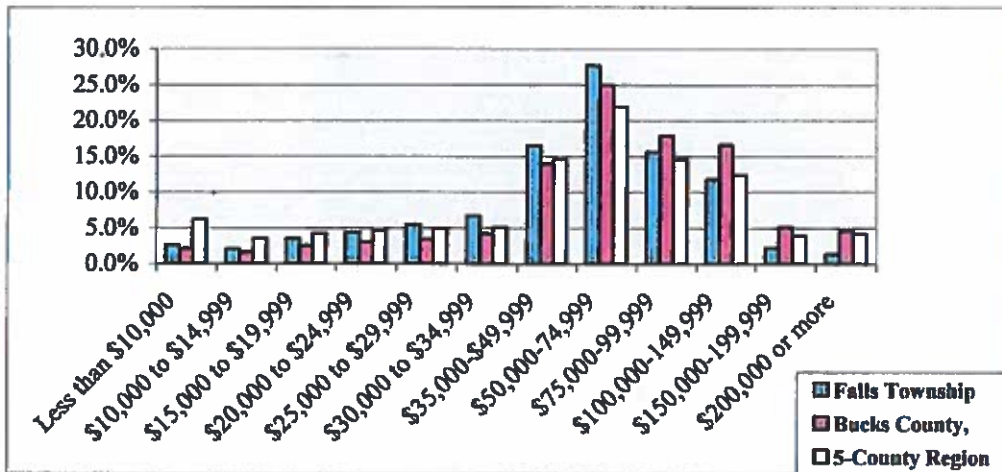


Source: U.S. Census, 2000 Summary File 3 (SF 3) - Sample Data

Family Income

Generally speaking, family income is usually higher than household income. This is in part a function of single person households, i.e. one wage earner occupying one household, where families require that there be two or more related individuals, and therefore potentially more wage earners per unit. Figure 11 below presents a similar graphic as Figure 10, though Figure 11 presents the distribution of *family* income for each geography

**FIGURE 11:
Family Income in 1999: Falls Township, Bucks County,
and the 5-County Region**



Source: U.S. Census, 2000 Summary File 3 (SF 3) - Sample Data

Bucks County had the third highest median family income when compared to the other Counties in the region and Falls Township.

**TABLE 19:
Median Family Income Distribution, 1999:
Falls Township, Bucks County, and the 5-County Region**

**Median family income by County
in 1999**

Falls township	\$ 57,033
Bucks County	\$ 68,727
Chester County	\$ 76,916
Delaware County	\$ 61,590
Montgomery County	\$ 72,183
Philadelphia County	\$ 37,036

Source: US Bureau of the Census, SF3, 2000.

Table 20 presents data on household and family income in 1989 (1990 Census) and 1999 (2000 Census) for Falls Township, the communities adjacent to Falls Township, and Bucks County. While caution should be used comparing income over time, such an examination can be useful for

highlighting relationships in the data. In this instance, Table 20 demonstrates that while incomes have grown for the Township and the County, as one would likely anticipate, the County's rate of increase outpaced that of Falls Township. Specifically, in 1989, the median household income in Falls Township was \$40,287, which was slightly lower than the County's median at that same time, \$43,347. From 1989 to 1999, the Township's household income rose by 24.4% to \$50,129, while the County's rose by 37.8% to \$59,727. Nationally, household income rose by 39.7 % between 1989 and 1999, from \$30,056 in 1989 to \$41,994 in 1999, outpacing the growth in household income in both Falls Township and Bucks County.

In 1989, the median family income in Falls Township was \$44,123, which was lower than the County's median at that same time, \$48,851. From 1989 to 1999, the Township's family income rose by 29.3%, which was greater than the increase in household income, to \$57,033, while the County's rose at a greater rate, 40.7% to \$68,727. Nationally, family income rose by 42.1% from 1989 to 1999. As with household income, national increases in family income exceeded those found in Falls Township and Bucks County.

**TABLE 20:
Median Household and Family Income in 1989-1999 and change:
Falls Township, Adjacent Communities and Bucks County**

Geography	1990		2000		Change: Household		Change: Family	
	Median household income, 1989	Median family income, 1989	Median household income, 1999	Median family income, 1999	1990-2000 (no.)	1990-2000 (%)	1990-2000 (no.)	1990-2000 (%)
Falls twp.	\$40,287	\$44,123	\$50,129	\$57,033	\$9,842	24.4%	\$12,910	29.3%
Bristol township	36,245	40,013	48,090	54,308	11,845	32.7%	14,178	35.3%
Lower Makefield twp.	69,904	75,732	98,090	106,908	28,186	40.3%	31,176	41.2%
Middletown twp.	46,756	51,081	63,964	71,271	17,208	36.8%	20,190	39.5%
Morrisville borough	33,484	39,426	43,095	53,316	9,611	28.7%	13,890	35.2%
Tullytown borough	37,091	42,824	45,625	57,917	8,534	23.0%	15,093	35.2%
Bucks County	43,347	48,851	59,727	68,727	16,380	37.8%	19,876	40.7%

Source: U.S. Census, 2000 Summary File 3 (SF 3) - Sample Data and STF-3 from 1990 Census.

Employment and Jobs

The Census collects information on the number, status and type of work of US residents 16 years of age and older, by place of residence. The following section present information on resident's employment and occupational status, followed by a presentation of data compiled by the Delaware Valley Regional Planning Commission on numbers of jobs in Falls Township.

Employment

According to the 2000 Census, 68.5% of the Township's population is in the labor force; 31.5 percent is not and .10% is in the armed forces. This distribution is similar to that found in Bucks, Chester and Montgomery Counties. Delaware and Philadelphia counties, on the other hand, have greater percentages of their population not in the labor force. Table 21 and 22 present employment status information for the Township, Bucks County, each county in the 5-County region, and a summary for the 5-County region.

TABLE 21:
Employment Status, Falls Township, Bucks County, the Counties Comprising the 5-County Region and the Aggregate 5-County Region, 2000

Place	Total 16 yrs. and over	In labor force		In Armed Forces		Not in labor force	
	number	number	percentage	number	percentage	number	percentage
Falls township	26,959	18,474	68.5%	28	0.10%	8,485	31.5%
Bucks County	461,356	320,110	69.4%	701	0.15%	141,246	30.6%
Chester County	332,513	229,631	69.1%	162	0.05%	102,882	30.9%
Delaware County	429,983	272,268	63.3%	176	0.04%	157,715	36.7%
Montgomery County	589,000	403,574	68.5%	921	0.16%	185,426	31.5%
Philadelphia County	1,174,798	656,935	55.9%	396	0.03%	517,863	44.1%
5-County Region	2,987,650	1,882,518	63.0%	2,356	0.08%	1,105,132	37.0%

Source: U.S. Census, 2000 Summary File 3 (SF 3) - Sample Data

Note: Numbers vary slightly because of rounding.

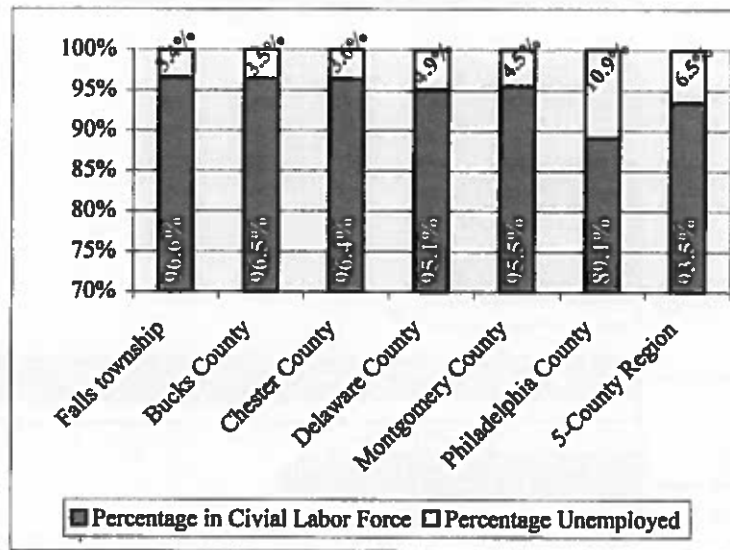
Table 22 presents information on the civilian labor force, that is the labor force exclusive of those in the armed forces, for Falls Township, Bucks County, each county comprising the 5-County region, and a total for the 5-County region. As can be seen in Table 22 and subsequent Figure 12, Falls Township's employment rate for those 16 years and over in the civilian labor force, at 96.6 percent, is the highest of the geographies presented. Conversely, then, the unemployment rate for Falls Township, at 3.4%, is the lowest of the areas examined.

TABLE 22:
Civilian Labor Force Status, Falls Township, Bucks County, the 5 Counties Comprising the 5-County Region and the Aggregate 5-County Region, 2000

Place	Total Civilian Labor Force	Employed in Civilian Labor Force		Unemployed	
	number	number	percentage	number	percentage
Falls township	18,446	17,820	96.6%	626	3.4%
Bucks County	319,409	308,281	96.5%	11,128	3.5%
Chester County	229,469	221,255	96.4%	8,214	3.6%
Delaware County	272,092	258,782	95.1%	13,310	4.9%
Montgomery County	402,653	384,688	95.5%	17,965	4.5%
Philadelphia County	656,539	584,957	89.1%	71,582	10.9%
5-County Region	1,880,162	1,757,963	93.5%	122,199	6.5%

Source: U.S. Census, 2000 Summary File 3 (SF 3) - Sample Data

**FIGURE 12:
Civilian Employment and Unemployment Rates, 2000**

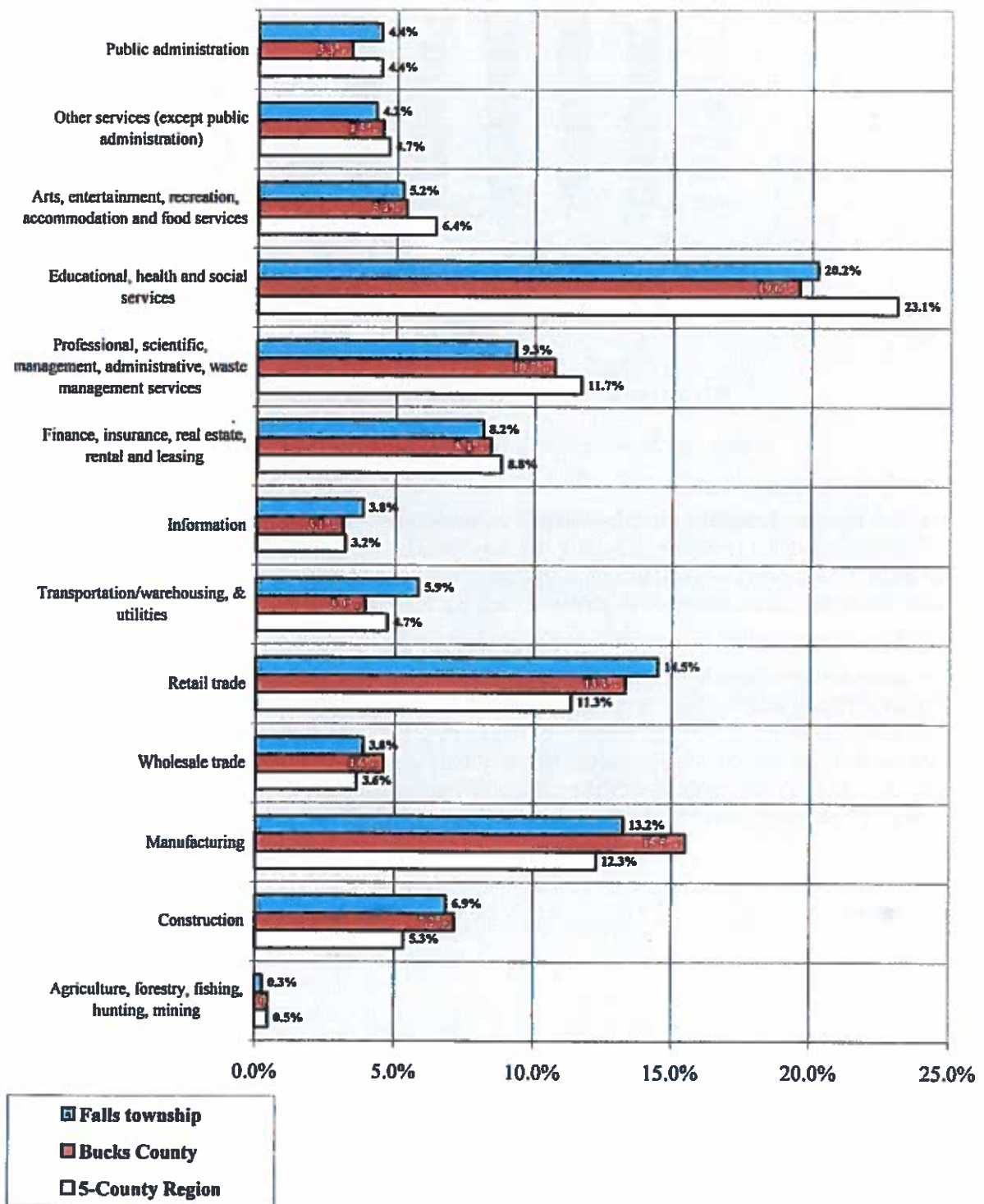


Source: US Bureau of the Census, 2000 (SF3)

The distribution of resident's employment by industry type is found in Figure 12. The top five industries employing residents of Falls Township include: 1) *Educational, health and social services*; 2) *Retail trade*; 3) *Manufacturing*; 4) *Professional, scientific, management, administrative, waste management services*; and, 5) *Finance, insurance, real estate, rental and leasing*.

The same industries employ the greatest percentage of residents in Bucks County, though with a slightly different distribution: While *Educational, health and social services* is the industry employing the single greatest percentage of residents in both the Township and the County, *Manufacturing* is second for the County but third for Falls. *Retail trade* is the second most important industry for residents of Falls Township while taking the third position for the County overall. *Professional* and *Finance* maintain the 4th and 5th positions respectively in both areas.

FIGURE 13:
Civilian Labor Force 16 Years and Over by Industry, Falls Township, Bucks County and the 5-County Region, 2000



Source: US Bureau of the Census, SF3, 2000.

Journey to Work

When compared to Bucks County and the 5-County Region, residents of Falls Township are most likely to commute to their place of employment via their own car, truck or van. Across geographies, in fact, the most popular means of transportation for residents is by automobile, with a majority of them driving alone in that auto. Public transportation is not readily utilized for commuting by residents of Falls Township or the County, and is used by only 11.3 percent of all residents of the region. This may be in large measure reflective of availability and feasibility of public transportation systems and related infrastructure.

Residents of Falls Township are far less likely to work in their homes than are residents of Bucks County and the 5-County Region overall. Table 23 presents detailed data on the means of transportation to work for workers 16 years and over in Falls Township, Bucks County and the 5-County Region, 2000.

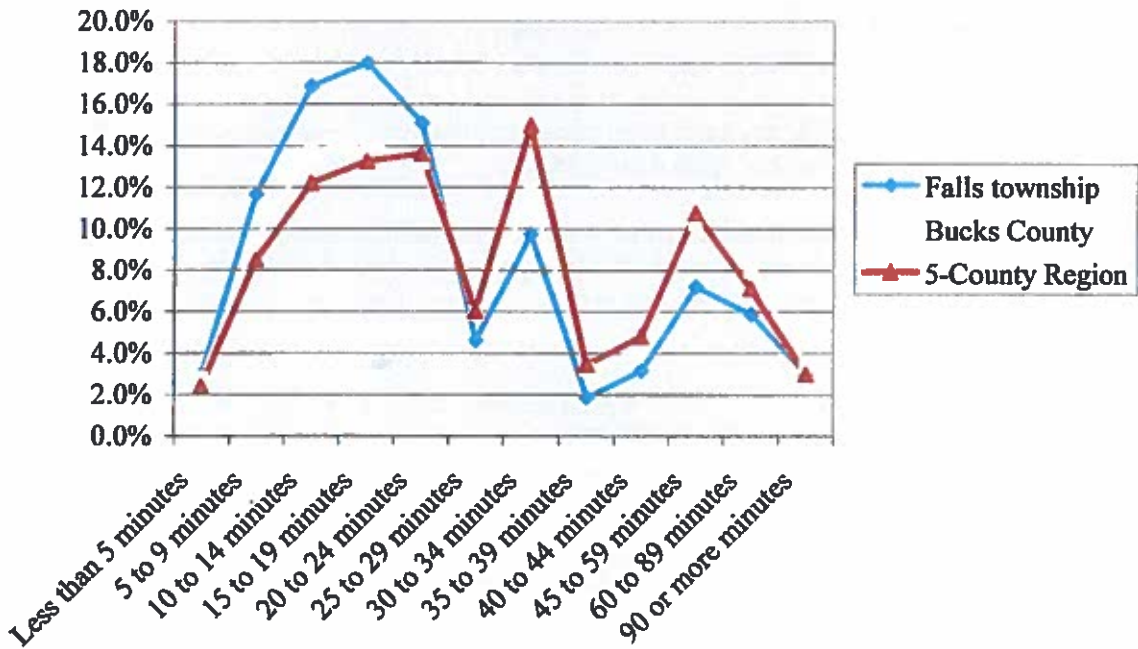
TABLE 23:
Means of Transportation to Work for Workers 16 Years and Over, Falls Township, Bucks County and the 5-County Region, 2000

	Falls township	Bucks County	5-County Region
Car, truck, or van:	93.4%	91.3%	79.9%
<i>Drove alone</i>	84.6%	83.0%	69.9%
<i>Carpooled</i>	8.8%	8.3%	10.0%
Public transportation:	2.8%	2.8%	11.3%
<i>Bus or trolley bus</i>	0.3%	0.3%	6.6%
<i>Streetcar or trolley car</i>	0.1%	0.0%	0.3%
<i>Subway or elevated</i>	0.1%	0.1%	1.9%
<i>Railroad</i>	2.3%	2.2%	2.5%
<i>Ferryboat</i>	0.0%	0.0%	0.0%
<i>Taxicab</i>	0.0%	0.0%	0.1%
Motorcycle	0.0%	0.1%	0.1%
Bicycle	0.1%	0.2%	0.4%
Walked	1.7%	1.7%	4.7%
Other means	0.4%	0.4%	0.5%
Worked at home	1.6%	3.6%	3.0%

Source: US Bureau of the Census, 2000.

Interestingly, while we see from Table 23 that in percentage terms, the residents of Falls Township are more likely to drive in a car, truck or van to work than are residents of Bucks County or the Region overall, we also find that residents of Falls have the shortest commutes, in terms of duration. Figure 14 depicts commuting times for those workers 16 years and over who did not work at home in year 2000. Bucks County and the Region have a very similar distribution of commuting time, with a slightly larger percentage of Bucks County residents spending more time commuting.

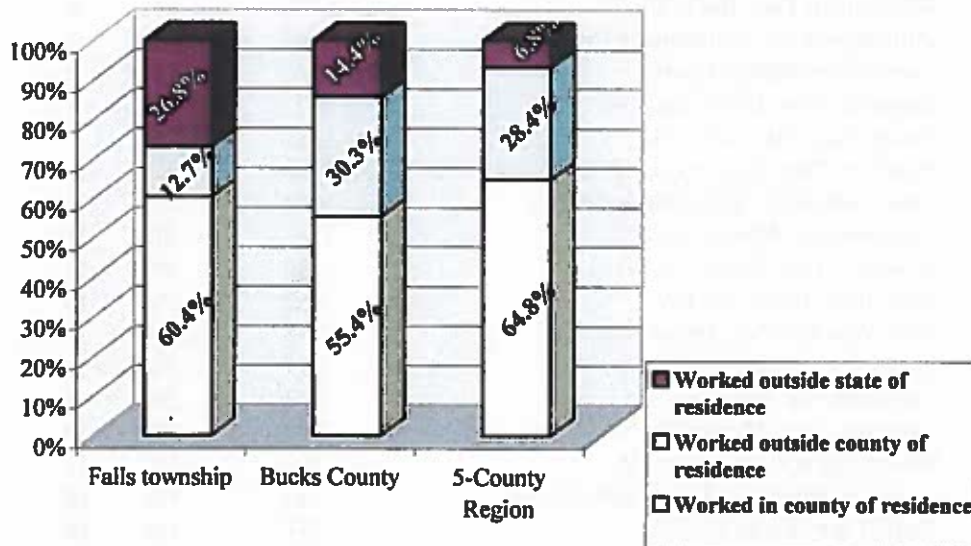
FIGURE 14:
Commuting Time Distribution for Workers 16 Years and Older not working at home: Falls Township, Bucks County and the 5-County Region, 2000



Source: US Bureau of the Census, SF3, 2000

Figure 15 presents a general overview of the place of work for residents of Falls Township.

**FIGURE 15:
Place of Work for Workers 16 Years and Over, Falls Township, Bucks County and
the 5-County Region, 2000**



Source: US Bureau of the Census, 2000 (SF3)

Interestingly, residents of Falls are more likely than other Bucks County residents to work in the County (60.4% versus 55.4%), but are also much more likely to work in a different state (26.8% versus 14.4%). This may be largely attributable to Falls Township’s close proximity to New Jersey.

Table 24a presents more specific data on where residents of the Township commute for their jobs. Falls Township itself is home to the jobs of 18% of the employed residents in the Township. Nearby Bristol and Middletown comprise the 2nd and 3rd most important destinations for residents of the Township, and the City of Philadelphia comes in 4th. As reflected in Figure 15, nearly 27 percent of Falls Township’s workforce is employed in places outside of Pennsylvania. From Table 24b we see that those locations include: the City of Trenton, Ewing Township, NJ; Hamilton Township, NJ; Princeton Borough, NJ; West Windsor, NJ; and Lawrence Township, NJ – all areas falling within the top 20 destinations of employed residents of Falls Township.

**TABLE 24a:
Place of Employment for Residents of Falls Township
in Rank Order (Top 20), 2000**

Location	# Residents	Percentage	Rank
Falls Twp. Bucks Co. PA	3,102	18%	1
Bristol Twp. Bucks Co. PA	1,460	8%	2
Middletown Twp. Bucks Co. PA	1,406	8%	3
Philadelphia city Philadelphia Co. PA	962	6%	4
Trenton city Mercer Co. NJ	943	5%	5
Bensalem Twp. Bucks Co. PA	877	5%	6
Ewing Twp. Mercer Co. NJ	537	3%	7
Hamilton Twp. Mercer Co. NJ	516	3%	8
Lower Makefield Twp. Bucks Co. PA	441	3%	9
Princeton bor. Mercer Co. NJ	381	2%	10
Newtown Twp. Bucks Co. PA	380	2%	11
Bristol bor. Bucks Co. PA	362	2%	12
West Windsor Twp. Mercer Co. NJ	295	2%	13
Langhorne bor. Bucks Co. PA	294	2%	14
Tullytown bor. Bucks Co. PA	272	2%	15
Lawrence Twp. Mercer Co. NJ	267	2%	16
Morrisville bor. Bucks Co. PA	254	1%	17
Lower Southampton Twp. Bucks Co. PA	243	1%	18
Yardley bor. Bucks Co. PA	197	1%	19
Newtown bor. Bucks Co. PA	179	1%	20

Source: US Bureau of the Census, 2000.

Of the total 13,846 jobs counted in 2000 by the Census⁸, 3,102 or 22.4% belonged to people who also live in Falls Township. Bristol Township was the source for the second largest group of workers in the Township, providing 14.1% of the workforce in Falls.. Table 24b presents the top 20 areas where employees who commute into the Township reside, as of the 2000 Census.

⁸ Note that the Census determined number of jobs (discussed above) and the DVRPC estimates discussed below vary by 1,674, with the DVRPC estimates being higher.

**TABLE 24b:
Place of Residence of Employees Working in Falls Township
in Rank Order (Top 20), 2000**

Residence State-County-MCD Name	Count	Percentage	Rank
Falls Twp. Bucks Co. PA	3,102	22.4%	1
Bristol Twp. Bucks Co. PA	1,949	14.1%	2
Middletown Twp. Bucks Co. PA	1,277	9.2%	3
Philadelphia city Philadelphia Co. PA	1,063	7.7%	4
Lower Makefield Twp. Bucks Co. PA	741	5.4%	5
Bensalem Twp. Bucks Co. PA	573	4.1%	6
Morrisville bor. Bucks Co. PA	529	3.8%	7
Trenton city Mercer Co. NJ	345	2.5%	8
Northampton Twp. Bucks Co. PA	331	2.4%	9
Bristol bor. Bucks Co. PA	268	1.9%	10
Lower Southampton Twp. Bucks Co. PA	232	1.7%	11
Hamilton Twp. Mercer Co. NJ	220	1.6%	12
Newtown Twp. Bucks Co. PA	205	1.5%	13
Warminster Twp. Bucks Co. PA	129	0.9%	14
Tullytown bor. Bucks Co. PA	121	0.9%	15
Willingboro Twp. Burlington Co. NJ	100	0.7%	16
Ewing Twp. Mercer Co. NJ	91	0.7%	17
Horsham Twp. Montgomery Co. PA	71	0.5%	18
Upper Makefield Twp. Bucks Co. PA	70	0.5%	19
Upper Southampton Twp. Bucks Co. PA	62	0.4%	20

Source: US Census, 2000.

Jobs in Falls Township

An important indicator of economic vitality for a community is the number and growth in jobs in that community. The above data present employment figures for residents of each area. What follows below is a presentation of the number (estimated and forecasted by the Delaware Valley Regional Planning Commission) of jobs in each area.

As can be seen in Table 25, Falls Township had 14,400 jobs in 1990 and it was expected that the Township would increase that number by 1,120 by the year 2000, representing a 7.8% increase over 10 years. Continued growth is anticipated, though at a slightly more modest rate: The Delaware Valley Regional Planning Commission forecasts that Falls will increase the number of jobs in the Township by 4.8% from 2000 to 2010 and another 5.2% from 2010 to 2020, for a total rate of growth between 2000 and 2020 of 10.2%.

TABLE 25:
Estimated and Forecasted Numbers of Jobs in Falls Township, Bucks County, and the Counties Comprising the 5-County Region, 1990 – 2025.

Area Name	Total emp.	Total emp.	2000		2020	2000-2010	2010-
	1990	1997	Forecast	2010 Forecast	Forecast	Percent Change	2020 Percent Change
Falls Township	14,400	15,040	15,520	16,270	17,110	4.8%	5.2%
Bucks Co.	245,350	264,010	271,880	296,610	323,470	9.1%	9.1%
Chester Co.	197,752	224,178	230,350	256,600	277,500	11.4%	8.1%
Delaware Co.	230,459	234,406	236,330	249,900	265,900	5.7%	6.4%
Montgomery Co.	457,501	485,435	491,200	520,250	551,450	5.9%	6.0%
Philadelphia Co.	836,874	786,015	786,150	797,750	833,550	1.5%	4.5%
5-County Region	1,967,936	1,994,044	2,015,910	2,121,110	2,251,870	5.2%	6.2%

Source: Delaware Valley Regional Planning Commission, Population and Employment Forecasts, 2000-2025, 9-County DVRPC Region, Publication #73, March, 2002. Note: Journey to Work data, the data used to determine numbers of jobs/employment in a municipality (as opposed to employed residents) has not been released at the time of publication of this report.

In terms of growth, Bucks and Chester Counties can anticipate robust job growth through 2020, according to DVRPC. In fact, the region overall is expected to increase its employment base by over 11% in the next 20 years. Comparatively, Falls Township’s rate of growth is lower, but in terms of its importance in Bucks County, Falls ranks among the top 5 municipalities on numbers of jobs. Table 26 presents the rank order, numbers of jobs, and percentage of total jobs in Bucks County for the top 10 largest municipalities in Bucks County vis-à-vis employment. The same DVRPC forecasts for year 2000 show Bensalem Township providing nearly 14% of all of the County’s jobs, followed by Middletown Township at 9.3%, Bristol Township at 7.6% and Warminster Township at 7.0%. Falls Township was expected to house almost 6% of the County’s jobs in 2000, dropping slightly to 5.5% in 2020, though continuing to remain the 5th largest employing municipality in the County.

TABLE 26:
Top 10 Employment Municipalities in Bucks County, 2000 and 2020.

Area Name	2000 Forecast			2020 Forecast		
	Job Rank	Jobs	% of all County Jobs	Job Rank	Jobs	% of All County Jobs
Bensalem Township	1	36,630	13.5%	1	38,040	12.8%
Middletown Township	2	25,420	9.3%	2	32,110	10.8%
Bristol Township	3	20,780	7.6%	3	20,770	7.0%
Warminster Township	4	19,050	7.0%	4	20,040	6.8%
Falls Township	5	15,520	5.7%	5	16,270	5.5%
Doylestown Borough	6	10,890	4.0%	6	10,970	3.7%
Lower Southampton	7	10,160	3.7%	8	10,560	3.6%
Northampton Township	8	10,020	3.7%	7	10,700	3.6%
Quakertown Borough	9	7,870	2.9%	10	7,810	2.6%
Bristol Borough	10	7,780	2.9%	9	8,000	2.7%
Bucks County, PA		271,880			296,610	100.0%

Source: Delaware Valley Regional Planning Commission, Population and Employment Forecasts, 2000-2025, 9-County DVRPC Region, Publication #73, March, 2002.

Chapter 6

LAND USE GOALS AND OBJECTIVES

The goals and objectives set the framework for the Comprehensive Plan. They set forth the Township's rationale for the land use policies, for the creation and evaluation of the zoning, subdivision and land development ordinances, and the assessment of new proposals in the Township. They are formulated to preserve and enhance the Township's quality of life. The goals contained here incorporate and also implement the goals from the 1991 Falls Township Comprehensive Plan.

Land Use

General Goals:

1. Provide for growth in such a manner so as to reduce the mixing of incompatible uses, enhance the visual and physical environment of the Township, and protect the health, safety and welfare of the land owners and residents of the Township.
2. Provide a long range plan aimed at improving the real estate tax basis so that the Township can continue to fund essential services.
3. Provide for the needs of the Township's aging population in terms of housing, shopping and recreation, while at the same time attracting younger families to the Township.
4. Provide for a diverse employment base within the Township for improving the availability of jobs to the residents of Falls Township and nearby municipalities.

Study Area 1

Study Area 1 includes the Lincoln Highway/Route 1 Corridor. Much of the development in this area is typical of older, highway-oriented commercial development. Since the construction of the Route 1 Expressway and the shifting of consumer shopping habits to shopping centers and malls, many of the properties have been vacated or are redirecting their orientation to what could be considered a destination orientation use.

1. Utilize the vacant and underutilized parcels in such as way as to provide a positive and stable tax base for the Township.
2. Identify uses for the vacant and underutilized parcels that will enhance the functional and visual characteristics of the corridor.
3. Develop a policy for the coordination of independent access points along the corridor to provide for safe, efficient traffic flow.

Study Area 2

Study Area 2 is the central portion of Falls Township which includes a mixture of development such as: Residential (mobile home parks), industrial parks, vacant lands, various industrial and commercial uses, as well as numerous borrow pit operations.

1. Develop guidelines for the development of the vacant or underutilized land to complement the myriad of uses that exist in the area.
2. Develop policies that will provide for the use of unwarranted and undesirable manmade bodies of water occurring due to the earth borrowing activities in the Study Area.
3. Identify measures for mitigating impacts of incompatible uses on one another.

Study Area 3

Study Area 3 is the southern portion of Falls Township which extends from the SEPTA R-7 line to the Delaware River and largely consists of the Van Sciver Lakes and Manor Lake, the current activities of Waste Management and GROWS Landfill (formerly the Warner operations), the U.S.X. Industrial Park, and the former Fairless Steel Works site along the Delaware.

1. Utilize underdeveloped properties and develop the vacant properties in a manner that will provide an optimal, stable tax base for the Township.
2. Identify options for using the bodies of water that are prevalent throughout Study Area 3. These may include water related uses or reclamation and reuse of the area.
3. Protect the environmentally sensitive lands throughout the Study Area.

Study Area 3-A

Study Area 3-A focuses on the U.S. Steel Fairless Works lands. This property comprises the largest consolidated land mass with potential for development in the Township. Special consideration for this site is deemed necessary to assure proper evolution and use balance. The property originally consisted of 3,900 acres, but over time the U.S.X. property has been reduced through past commitments to Wheelabrator-Falls, Waste Management, Inc., and U.S.X. Realty.

1. Provide for the redevelopment of the U.S. Steel Fairless Works site in a manner that utilizes the existing features of the site.
2. Provide for a broad employment base in an effort to reduce the impacts of plant closings.
3. Recognize and respect the environmental elements of the site that will limit the development.

Study Area 4

Study Area 4 is Fallsington Village. This area is roughly bounded by Tyburn Road, New Tyburn Road, and the boundary which affects the historic Fallsington Village.

1. Maintain and enhance the character of the Fallsington Village area. Reroute primary traffic around the Village as practicable.
2. Review options for resolving the circulation problems that exist in the older sections, such as the addition of on-street parking. (It should be noted this has been accomplished through the establishment of the Township park in an area that was formerly occupied by the Township municipal building and related facilities).
3. Identify uses that could occupy the land which is currently occupied by the Township buildings (see comment above - Township buildings have been reutilized in a manner that enhances the Village character). This goal has been accomplished.

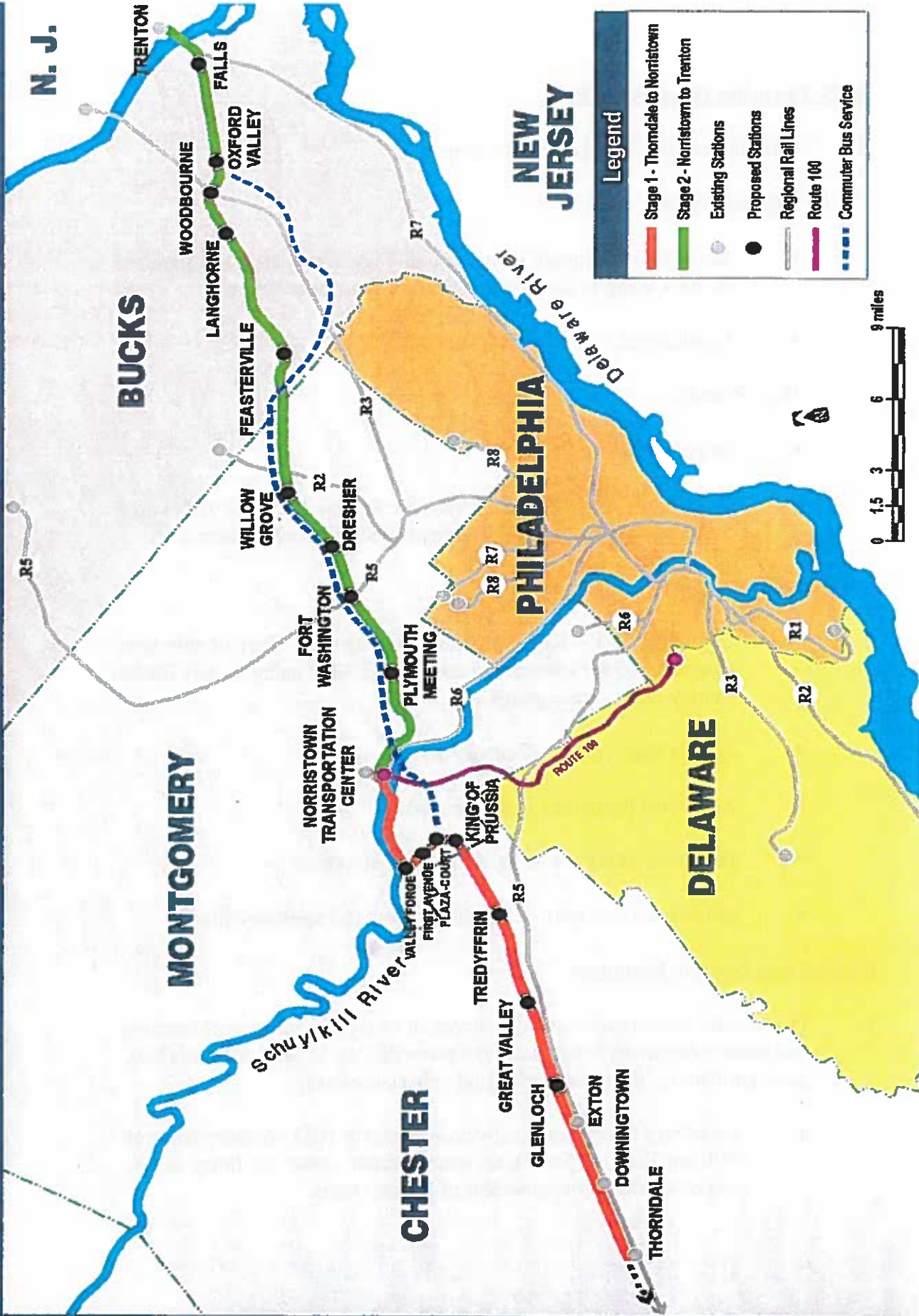
Circulation

1. **Falls-Hamilton Bridge.** Align the proposed bridge with an at grade intersection with Tyburn Road. Provision should also be made to extend Steel Road east to Tyburn Road. Construction of the bridge would develop an important link in the otherwise remote southeastern corner of the Township and provide an additional link to help encourage the development/redevelopment of the 2,200 acres which remains as a part of the Fairless Works property.

Cross County Rail Line

1. **Support the location of the future Cross County Metro station and parking adjacent to Route 1 just south of Morrisville.**
2. **This area is in need of redevelopment and along with an interconnection with bus service would support employment centers in Falls Township such as Penn-Warner Park and the U.S.X. Industrial Park. (See Cross-Country Metro exhibit on the following page.)**
3. **The Cross County Metro would provide circumferential transit service in the corridor from the vicinity of Trenton, New Jersey/Morrisville, Bucks County to Thorndale, Chester County, traversing Montgomery County. This line is intended to fill a key missing link in the provision of public transportation service in southeastern Pennsylvania by providing for inter- and intra-suburban trips to shopping, industrial/office and residential concentrations in Bucks, Montgomery and Chester Counties.**
4. **At the same time, the Cross County Metro could facilitate intermodal connections to SEPTA's existing, radial regional rail and transit services; potential park and ride lots located along the Pennsylvania Turnpike and U.S. Route 202; as well as feeder bus service between the proposed stations and nearby development concentrations. Direct connections would be provided with other SEPTA rail lines, including the R-7 Trenton line. These connections and intermodal opportunities would enhance the regional mobility choices of suburban and city residents.**
5. **Year 2020 total daily ridership for the Cross County Metro is forecast to be 20,200 and, of this amount, new daily ridership is estimated to be 16,200. Capital costs are estimated to be \$1.023 billion (2002\$).**

METRORAIL - LOCALLY PREFERRED ALTERNATIVE



1999 Township Open Space Plan

1. Continue to acquire high priority properties:

Highest Priority:

- Sadowski. (It should be noted this 37 acre property was acquired in 2001 using in part Bucks County Open Space grants).
- Guzikowski.

High Priority:

- Snipe's West.
- U.S. Route 13 and Lower Morrisville Roads. (62 acres of this area was preserved as a part of the Realen cluster development.)

Moderate Priority:

- U.S. Route 13 - East, west and interchange. (Part of this area consisting of 43.1 acres was acquired in 2000 using in part Bucks County Open Space grants.)
- Snipe's East - Snipe's Nursery.
- Additional properties in Fallsington.
- Properties along the Morrisville south riverfront.
- Delaware River inlet - 18 acres adjacent to Pennsbury Manor.

Natural and Historic Resources

- 1. Promote the preservation and enhancement of significant natural features and historic resources to the extent not preempted by Federal and State law, most particularly the preservation and enhancement of:**
 - a. Pennsbury Manor (originally constructed in 1683 - country home of William Penn). Now a recreated manor house on thirty acres, owned by the Commonwealth of Pennsylvania.**

- b. Fallsington Village (oldest dwelling 1685). Beautifully preserved village and listed on the National Register of Historic Places. Contains the first church - Quaker Meeting House - in Bucks County. The village represents one of the County's finest collections of eighteenth and nineteenth century buildings.
 - c. Three Arches (original section circa 1684). The manor house and two acres are now owned by Falls Township and used as a community center. The Three Arches has been on the National Register of Historic Places since 1977.
2. Continue to develop an inventory of local historic resources.
 3. *The Natural Areas Inventory of Bucks County, Pennsylvania, 1999* lists twelve priority inventory sites for Falls Township. These sites were considered during the preparation of the 1999 Falls Township Open Space Plan. Many of these valuable sites or portions of them have been permanently protected while others are recommended for preservation on the Future Land Use Plan. See following list for status:

<u>Site #</u>	<u>Site Name</u>	<u>Priority</u>	<u>Recommended Action</u>
7	Five Mile Woods	1	Preserve
9	Biles Island and U.S.X. Tidal Marsh	1	North section protected Preserve waterfront
10	Money Island	1	Portion protected Portion preserve
32	Riverfront Park	2	Protected
46	Sadowski Property	2	Protected
48	Snipes Woods	2	Preserve
52	Van Sciver Lakes/ Warner Lakes	2	Protected
58	Chicken Foot Park	3	Protected

<u>Site #</u>	<u>Site Name</u>	<u>Priority</u>	<u>Recommended Action</u>
69	Tidal Marsh below Post Road	3	Preserve
83	Route 13 Wetlands and Woods	3	Protected
89	Trenton Road Park	3	Mostly protected
99	Fallsington Woods	4	Protected

Housing

1. Encourage a range of housing types that will meet the current and future needs of Township residents.
2. Promote residential development/redevelopment in keeping with established neighborhood patterns.
3. Assure the value of the Township's existing housing stock is maintained by eliminating incompatible adjacent uses.
4. Provide for mandatory buffers and transition areas when in close proximity to residential neighborhoods.
5. Consider the adoption of a Traditional Neighborhood Preservation District to be applied to the existing residential neighborhood of "Burgess Manor" bounded by West Trenton Avenue, Lafayette Avenue, Walnut Lane, and Castle Club apartments.
6. Provide for additional opportunities of age qualified housing - active adults age 55 and older.
7. Preserve and reinforce existing neighborhoods by discouraging conflicting land uses.

Economic Development and Commerce

1. Provide for a strong, diverse economic base within the confines of the Township.

2. Continue to encourage neighborhood-oriented development for the convenience of residents and to improve the quality, streetscape, and visual character of such uses.
3. Promote the renovation and beautification of existing antiquated shopping areas - particularly along Business Route 1 and Trenton Road.
4. Implement a new district identified as RO Residential Office to allow for a transition between major highways and adjoining residential neighborhoods without having to introduce intensive commercial activities.
5. Promote light industrial and business campus development of the Fairless Works and U.S.X. Industrial Park.
6. Continue to evaluate GROWS (Geological Reclamation Operation and Waste Systems, Inc.) landfill operations to determine whether there are any land use and economic advantages in continuing the "western expansion" or other options with adjoining properties that are zoned for industrial land uses and which are not subject to natural resource limitations.
 - Current landfill designs include a variety of safeguards: liner systems, cell construction, leachate collection and treatment, landfill capping, methane gas collection and distribution, or energy conversion.
 - Quality landfill management incorporates traffic control, site security, equipment and vehicle maintenance, litter abatement and landscape construction.
7. Wheelabrator Falls, Inc. combined with the GROWS landfill provide dependable, long-term, and environmentally safe solid waste disposal to meet the daily needs of the Bucks County region. Wheelabrator provides a trash-to-energy process to provide electric power to approximately 40,000 households. Wheelabrator also provides a material recovery facility which processes recyclables into clean, marketable secondary materials.

Recreation

1. Plan for the optimum use and location of land for recreation, parks, and open spaces.

2. Continue to promote the preservation and utilization of the Penn Warner Club, which provides over 2,000 acres of fresh clear water for fishing and boating as well as hunting for upland game from blinds situated along Manor and Van Sciver Lakes. (Note: The assets of the Penn Warner Club were established by agreement dated December 13, 2001 between the Township of Falls and Waste Management Disposal Services to assure that passive recreation shall prevail as the end use for not less than 2,000 acres which are substantially the lands and waterways of the Penn Warner Club.)

Falls Township Bicycle/Pedestrian Plan

(General information provided by Bill Reese, Director of Parks and Recreation.)

1. The purpose of the Falls Township Bicycle/Pedestrian Plan is to improve safety and convenience for people without access to a car, to be able to reach the Township Community Park, by either walking or bicycling.
 - This is extremely important due to the fact that in Pennsylvania approximately 25% of adults have no access to a car.
 - In Falls Township, approximately 36% of households have no car.
 - In addition, persons too young to drive and older or disabled persons have no access to a vehicle as well.
2. People want to live in areas where they and their children can safely walk or ride bikes for errands or recreation.
 - The trail system will provide a safe and efficient means of connecting local residents to the Community Park and will become a transportation alternative to the automobile, thereby potentially reducing the number of local and short distance automobile trips in the area.
3. The Community Park Trail which will be a 2.5 mile system of trails located in the Levittown area of the Township is a major link within the Township Trail System.
 - The trail system will provide a pedestrian/bicycle facility in an area where none currently exist.

- The Community Park Trail System will provide a direct link between the residential communities of Levittown, Wheatsheaf and several mobile home parks to the Township Community Park and the Delaware Canal State Park.
 - The majority of the proposed trail will run through existing developed areas, particularly those areas west of Route 13 and through Penn Valley. Then it will cross Martins Creek immediately south of Penn Valley Road and connect to an existing bituminous trail that circles an 80 acre lake on Phase II of the Community Park, east of Martins Creek.
4. The Falls Township Public Works Department is currently creating an 8 foot path along Levittown Parkway, from Township Line at Lakeside up to Penn Lane and North Park and Penn Valley Road, from Upper Birch Drive up to North Park Way.
- Pedestrian/bicycle provisions at two traffic signals and two interchanges along the trail system are major components of this trail system.
 - Among the pedestrian enhancements included in this project are pedestrian signals, educational push-button signs, high-visibility pavement markings, and warning signs for motorists. As part of the project, three structural designs will be required. The first will be a small bridge parallel to Penn Valley Road over the Martins Creek. The second is a retaining wall modification along Mill Creek Road at the U.S. 13 underpass. The third will be modifications to the Canal Bridge on Wheatsheaf Road. All three structures will allow trail users to continue along the trail system without having to enter the adjacent roadways.

Chapter 7
LAND USE AND PLAN IMPLEMENTATION

Existing Land Use

The Aerial Map, which includes a mosaic of flights from 2001, 2002, and 2003 is found in the rear pocket of this report. It represents an inventory of developed versus vacant land in Falls and surrounding municipalities.

The *1995 Land Use - Bucks County Inventory* lists the following land use patterns and land areas (percentages calculated):

Figure 7-1
Falls Township Land Use

<u>Land Use</u>	<u>Square Miles</u>	<u>Percentage</u>
Single Family Detached	3.2219	12.1%
Single Family Attached	0.0206	0.1%
Multi-Family	0.2691	1.0%
Manufacturing	3.8283	14.4%
Transportation	2.4206	9.1%
Utility	0.0727	0.3%
Commercial	0.9794	3.7%
Community Service	0.2598	1.0%
Military	0.0000	0.0%
Recreation	0.7640	2.9%
Agriculture	0.3579	1.3%
Mining	1.2241	4.6%
Wooded	5.7096	21.4%
Vacant	2.3806	8.9%
Water	5.1422	19.3%

These areas are largely unchanged through 2003, with the exception of vacant land which has been developed for commercial and industrial or permanently preserved for park lands: such as Falls Township Community Park (228 acres) and Lower Morrisville Road (Realen open space parcel 62 acres).

Approximately 97% of the Township residents are served by public water and 96% by public sewer.

Housing Plan

The major goal of the Housing Plan is to provide a diversity of residential opportunities of high quality, which is an index of economic strength of the community. Of particular concern is the ability to provide affordable housing for a range of income groups and give options for a variety of housing types to satisfy the needs of all age groups, economic categories, and life styles (such as owner occupied or rental occupied dwelling units).

In order to implement this goal, the following objectives are proposed:

1. Ensure that the existing housing stock remains desirable.
2. Provide a varied housing stock that addresses needs of all residents.
3. Ensure that all infill development north and west of U.S. Route 13 is compatible with surrounding housing in existing neighborhoods.

The 2000 Census figures show a total of 13,522 housing units in Falls Township. When broken down by unit type, the housing in Falls is as follows:

- 62.4% single family detached;
- 4.3% single family attached and twins;
- 21.5% multifamily;
- 11.7% mobile homes (Note in Table 10b of the detailed Demographic Profile that 1,478 of these are located in mobile home parks).

Growth in a developed municipality such as Falls Township has for years been largely in the form of infill in existing residential areas. Few sites zoned for residential are truly vacant. Most are utilized for institutional or open space/recreational uses.

The Delaware Valley Regional Planning Commission (DVRPC) projects a population for Falls Township in 2010 of 34,790 persons, which in effect is virtually flat or no change in population. This is in part due to the continued reduction in the median family size in America and is largely due to an appraisal of the fact that virtually no residential land exists for future development. This projection would suggest that virtually no additional housing is necessary to accommodate future population needs.

However, the Future Land Use Plan identifies certain areas currently zoned for Highway Commercial and Shopping Center (the former movie theater site) for attached age qualified housing. A small area along Lower Morrisville Road is proposed for residential subdivision, which would also add a few single family lots to the overall housing stock for the Township. There are also a few important properties such as Guzikowski and Snipe's West properties which are zoned for residential but which the Future Land Use Plan proposes as future open space.

Community sustainability indicators will need to be evaluated in order to ensure the continued vitality and popularity of existing residential neighborhoods, some of which now are in excess of 50 years of age.

Measuring the quality of neighborhoods can include the following indicators:

1. Percentage of persons below the poverty level.
2. Percentage of households that are headed by a woman.
3. Percentage of persons not employed.
4. Vacancy rate for year-round housing units.
5. Percentage of renter-occupied dwellings (of housing not builder-developed as rental apartments).

A review of the Detailed Demographic Profile prepared for the Township using the 2000 Census reveals the following quantitative results for the above qualitative indicators:

1. A low percentage of persons are below poverty level.¹
2. 12.1% of households are headed by a woman, which is 40% higher than the County average. Of the five demographic criteria considered, this is the only item which was a significant departure from the County profile.
3. A very low percentage of persons not employed - Falls Township maintains one of the highest employment ratios in the County.
4. Housing vacancy is among the lowest for Bucks County municipalities. In fact, multiple listing summaries provided by Mr. Dick Trimble, Century 21, for the first six months of 2003 indicate 71% of residential properties were on the market 30 days or less.²
5. Percentage of owner-occupancy is 73.52% which is slightly below that of Bucks County (77.3%) but higher than the 5-County Region (68.4%). In addition, there is a high percentage of affordable single family detached dwellings, many of which are rancher style one story which also appeal to older persons.

Anecdotally, it is also observed there is a strong and highly regarded school system with a large number of elementary and middle schools easily accessed by the residential components of Falls Township situated north and west of U.S. Route 13.

¹Poverty. According to the 2000 Census, Falls Township had 348 families or 3.7% of the total number of families (9,407) living below the poverty level in 1999. This percentage was slightly higher than Bucks County, which had 4,989 families or 3.1% of the total number of families (160,946) living below the poverty level in 1999. The Township had 1,918 persons or 5.5% of the total population below the poverty level in 1999. This percentage was also higher than Bucks County, which had 26,894 persons or 4.5% of the total population (597,635) below the poverty level in 1999. This percentage was, however, lower than other urbanized areas in Lower Bucks County such as: Morrisville (8.9%), Bristol Township (5.4%) and Bensalem Township (6.0%). It should also be noted that Fairless Hills (2.7%) and Levittown (2.9%) exhibit a presence of families living below poverty but at a rate lower than the total for Bucks County.

²This was significantly greater than Bristol Township (60%) and Lower Makefield Township (55%) and identical with Middletown Township (also 71%).

It is also observed the Township possesses a strong Township park and recreational system, including both County and Township park facilities. A complete inventory is listed on pages 6 and 7 of the *Open Space Plan*, June 1999 and the more conspicuous properties are inventoried on the Open Space, Existing Institutional, and Historic Resources Plan appended to this Comprehensive Plan Update report.

The recent addition of the Falls Township Community Park (228 acres) and the newly acquired open space preservation area between Lower Morrisville Road and U.S. Route 13 (more than 105 acres) have added critical additional acreage of open space which will serve not only as a buffer/transition between busy highways and existing residential neighborhoods but provide the opportunity for active and passive recreation for these neighborhoods as well. Township parks coupled with athletic fields on School District property provide important open space and recreation opportunities for the residents of Falls Township.

In addition and discussed at length elsewhere, the 2,000 acre Penn Warner Club facility which has been restricted for passive recreation using the lands and waterways adjoining the Van Sciver Lakes and Manor Lake provide unusually attractive fishing, hunting, and boating opportunity for Township residents.

Objectives

In order to implement the housing goal, the following objectives are proposed:

1. Ensure that the existing housing stock remains desirable.
 - Implement recommendations of the Future Land Use Map. These recommendations are designed to eliminate undesirable development and conflicts with existing residential neighborhoods.
 - Avoid the presence of blight that negatively affects adjacent properties.
 - Ensure that nonresidential uses in close proximity to residential neighborhoods are well maintained and occupied.
 - Install or implement strong buffers between the residential and nonresidential communities.
 - Monitor traffic flow through residential neighborhoods. Establish traffic calming measures to reduce/minimize through movement or high volume traffic from using quiet residential streets.

2. Provide a varied housing stock that addresses the needs of all residents.
 - Pursue the implementation of age qualified 55 plus housing at strategic locations in the Township. Some of these locations will take the place of properties zoned for High Density Commercial and should help effect a transition between busy highways while affording the opportunity of housing for this ever increasing age group.
 - Consider locations for continuing care lifestyles that would provide elder care in the form of independent living, assisted living, skilled care and nursing care facilities for the aged and infirm.
 - Allow in-law suites and granny flats in single family dwellings subject to detailed regulations in the Township Zoning Ordinance, including a deed restriction to mandate the in-law suite or granny flat would be only for immediate family members. In-law suites could be permitted by special exception by the Zoning Hearing Board.
3. Ensure that all infill development north and west of U.S. Route 13 is compatible with surrounding housing in existing neighborhoods.
 - Prevent overdevelopment on lots. Ensure that Residential Districts have maximum building and impervious surface coverage standards and that preserved natural features such as wetlands and stream valleys will not be encroached upon.
 - Ensure that landscape buffers are installed as a part of any new development.
 - Adopt an IN Institutional District. Institutional uses are important but adequate standards should be added to the Zoning Ordinance to help avoid possible conflicts in residential neighborhoods.

Land Use Recommendations

The following is a summary of the major land use recommendations or issues that have been discussed during the preparation of the Open Space, Institutional and Historic Resources Plan and the Future Land Use Plan:

1. Numerous institutions, such as schools, places of worship, and hospitals, have been identified.

Comment: Due to the large number and variety of institutional uses in the Township and the fact they are all concentrated east of U.S. Route 13, perhaps a separate and distinct Institutional District may be appropriate. As presently constituted, institutions are permitted in some of the various Residential Districts without separate standards - or exist as nonconforming uses.

- a. *Religious uses should be permitted only by "conditional use" with specific criteria designated.*
 - b. *Existing institutional uses should be zoned with a new IN District with special setbacks and standards to help protect adjacent residential neighborhoods.*
2. **Future open space.** This land use designation includes all of the recommendations from the 1999 Open Space Plan that have not yet been implemented and assumes that they will be and are thus identified as "Future Open Space".

Comment: Additional areas of open space are identified below:

- a. *Areas along the Delaware River that are part of the reclamation landfill process, such as GROWS, Inc., areas adjacent to Bordentown Road, and areas along the Delaware River south of Pennsbury Manor.*
- b. *Some areas adjacent to U.S. 1 Expressway, which appear as either surplus right-of-way or wooded vacant open space that run behind existing residential communities - and particularly behind Rice Drive.*
- c. *The triangular area that would help fill out the frontage of the Trenton Road Park.*
- d. *Areas adjacent to Kirby Park along Tyburn Road.*
- e. *An area to the rear of businesses which are non-conforming uses just south of St. Joseph the Worker Church. The thinking is the rear half would be preserved as open space and the frontage would be converted to NC Neighborhood Commercial type uses.*

- f. *Sections of Moon Island and an area already established as a wildlife preserve on the very northerly edge of Biles Island - this as a part of the Waste Management reclamation plans.*
 - g. *The land between the R-7 SEPTA rail line and the Pennsylvania Canal, generally between Wheatsheaf Road and Tyburn Road.*
 - h. *The line that reflects the agreement between Falls Township and Waste Management to assure passive recreation for the 2,000 acres which are substantially the lands and waterways of the Penn Warner Club. (See Open Space, Existing Institutional and Historic Resources Plan.)*
 - i. *At their regular meeting of May 25, 2004, the Falls Township Planning Commission recommended that the existing woodlands which are located adjacent to the Delaware River and identified on the Future Land Use Plan (see rear pocket) also be preserved, if possible. Any proposed use of this property shall take into account and shall enhance the Falls riverfront.*
3. Delaware Canal. Both Falls Township and Morrisville Borough are fortunate to have the Delaware Canal - Delaware Canal State Park run through both municipalities. Realizing that tourism is the fastest growing industry in Bucks County, the Township may want to explore in more depth this historical and natural resource both for preservation and economic development. The Urban Appalachian Trail and the Delaware and Lehigh National Heritage Trail Corridor follow the towpath of this Canal. Plans for use and access along the Canal may offer another opportunity for cooperative discussions on planning. (This section is recommended by the Morrisville Borough Planning Commission - see letter from Mr. Don M. Diretto May 24, 2004 in Appendix).
4. Proposed age qualified (age 55+) attached housing.
- a. This has been superimposed over the Avenrowe property.
 - b. A new area presently defined by the vacant drive-in movie lot which consists of both HC and SC zoning, an area of approximately 50 acres, has been identified. In the alternative, the property would also be suitable for business or professional office park.
 - c. A small area adjacent to the New Cavalry Church presently zoned HC Highway Commercial is also identified for age 55+ attached housing.

Comment: Age 55+ housing (take a look at the Villas of Flowers Mills in Middletown Township) is becoming a very popular and economically successful choice for our aging population. Positive benefits include:

- *No school age children is a great fiscal benefit to the School District.*
 - *Relatively low density and little costs to Township.*
 - *Helps promote the "wealth effect", i.e., local purchasing power, banking, volunteerism of independent elderly.*
5. The residential component of the "Burgess Manor" panhandle which consists of unusually well preserved, high quality period single family homes generally bounded by Trenton Avenue, Lafayette Avenue, Walnut Lane, and the Castle Club apartments is identified as having the potential for a special *traditional neighborhood preservation standard district*.

Comment: This would be a spin off of the Historic District and perhaps limit the type and manner in which buildings could be altered but without imposing unnecessary limitations on private improvement.

6. A new category entitled Residential Office has been established for areas along major roadways that consist of single family dwellings on small lots. These are areas that are contiguous to quality residential neighborhoods but which themselves may be more appropriate for a transitional use. Some of these lots are presently zoned Residential and some are presently zoned NC Neighborhood Commercial.

Comment: The suggestion would be to permit only limited business and professional office use of the residences and encourage the preservation and rehabilitation of the dwellings, so from an architectural point of view the buildings would be compatible with the immediate residential neighborhood.

7. The BP Business and Professional Office District is proposed to be expanded into certain areas where the office presence is preferred to commercial or retail:
- a. Oxford Crossing professional offices and Fleet Bank. This area is currently zoned NC whereas BP would be preferred.

b. The five properties currently zoned NC at Trenton Road and Tyburn Road are proposed for BP. Some offices exist and are considered preferable to existing strip retail on small lots.

8. The Fallsington area has been enlarged in a detail identifying the Historic District and surrounding areas. The noteworthy historic buildings have been identified, as well as institutional and open space uses nearby.

Comment: This is the oldest and finest restored village in Bucks County and is on the National Register of Historic Places. Help promote appreciation and tours of the village. Arrange for visitor parking at Pennsbury Administration building.

9. The area along Bristol Pike south of Wheatsheaf Road is identified as Industrial land use - one of these properties is currently identified as MHP.

Comment: It is suggested that mobile home park be concentrated north of Wheatsheaf Road and the total MHP District be reduced where practicable. Falls already exhibits 12.1% of its housing stock as mobile homes, greater by fourfold than the County total.

10. Support the *Bucks County Waterfront Activities Study, Volumes 1 and 2, June 1999*, prepared by the Bucks County Planning Commission.

Comment: The purpose of this study is to provide guidance to municipalities for the development and revitalization of waterfront areas of Lower Bucks County, including the Delaware River along the Falls Township border. This study area includes over 5,441 acres in Falls, generally including all that area south and east of Old Route 13, Bristol Pike. Suggested municipal actions include:

- *Specifically address waterfront planning issues in a Comprehensive Plan supplement.*
- *Coordinate waterfront planning with area municipalities.*
- *Implement the recommendations of the Heritage Conservancy's Lower Delaware River Management Plan.*
- *Identify regions with sensitive features and discourage development in those areas.*

- *Undertake a program to acquire properties along the waterfront for the purposes of water-related development.*
 - *Amend zoning to provide incentives in exchange for the provision of public access to the waterfront.*
 - *Work toward a goal of utilizing the Township's riverfront as an economic and community asset, while ensuring a sound environment.*
 - *Amend zoning along the riverfront to better utilize and enhance the riverfront.*
11. Consider forming a committee to identify possible sites for a local Community College campus.

Comment: A local campus would serve the Township's resident population by providing a cost effective, close at hand opportunity for continued education. Only 17.5% of Township residents have a Bachelor's or Graduate Degree, less than that for Bucks County (31.2%) and the 5-County Region (28.75%). The campus would also provide a facility for retraining of those residents who lost jobs with the U.S.X. Fairless Works plant.

Chapter 8

FINANCIAL ANALYSIS

As a part of the Comprehensive Plan Update, a financial analysis has been prepared. This chapter was prepared by E. Van Rieker, AICP with contributions from Local Government Management Services, L.L.C.; Wayne Bergman, Township Manager; Peter Gray, Township Finance Director; David Moskowitz, Township Solicitor; and Bill Reese, Director of Parks and Recreation.

Introduction

The Township currently enjoys host community fee revenue due to the location of landfills and a resource recovery facility which generates substantial hosts fees each year. Generally speaking, the Township Supervisors desire to receive advice on the subject of “where do we go from here?” By all indications they are in good current financial shape, but desire to understand the financial options that may be available in the next 8 to 10 year time frame.

Township officials wisely assume that the landfill revenues will not last forever. They are using the opportunity to prepare a new comprehensive development plan which also looks at differing financing scenarios for the future. In addition, certain future land uses may contribute to the financial well being of Falls Township and this is discussed as well.

Background

To understand where to begin searching for suggestions and alternatives we must begin with an analysis of the current financial situation.

Taxes

- The current tax mix consists of four basic taxes:
 1. Real estate taxes (31.40 mills in all funds, and 16.65 mills alone in the general fund) The general fund yield was \$1,441,798 in 2003. Falls already has the lowest real estate tax of any surrounding township. In fact it is substantially lower, especially when the lack of an Earned Income Tax is factored in.

2. Real estate transfer taxes ($\frac{1}{2}$ of 1 %). The expected yield in 2003 is \$425,000.
 3. Occupational privilege tax (\$10). The estimated 18,000 workers in the Township bring in \$180,000 in taxes.
 4. Mechanical devices tax. The annual yield is \$30,000.
- Business gross receipts taxes (mercantile or business privilege) cannot be levied after 1988 and are therefore unavailable to the Township.
 - The Township currently levies no earned income tax. Of all of the Falls Township working residents, it is estimated that 40%¹ of them already pay an earned income tax to another jurisdiction.

Host Fees

- The Township is in the unique position of having two landfills located within its borders. The facilities are owned by Waste Management, Inc. This results in a windfall “host fee” that is paid by the owners of the landfill directly to the township.
- The facilities handle over 1.8 million tons of solid waste each year (2001 figure).
- The Township is on very substantial financial footing at the present time due to the host fees.

¹Although Falls does not currently have an earned income tax, numerous of its neighbors do. Presently, approximately 6,500 workers are employed in nearby municipalities in Bucks and Montgomery Counties (plus 962 in Philadelphia). Falls Township in effect loses approximately \$1,625,000 per year to these adjacent municipalities. This calculation does not include New Jersey municipalities which have not yet enacted the EIT. Estimate based on median household income of \$50,129 in 1999 times $\frac{1}{2}$ of 1%. It should be noted outside school districts would keep $\frac{1}{2}$ of 1% of the tax unless Pennsbury School District would enact such a tax.

- There are only 8 to 9 years of capacity left at the facility unless another expansion is approved. Current capacity is expected to be completely utilized by 2013. An application has been submitted to the Pennsylvania Department of Environmental Resources by Waste Management to expand the facility to be known as GROWS North (or locally known as “Turkey Hill”). Township officials estimate this application to be approved in order to begin the expansion in 2007.
- In the meantime annual waste collection and disposal will actually decrease for the next few years as Waste Management shifts some of their tonnage to the nearby Tullytown landfill in order to prepare for the GROWS expansion.
- The Township expects the host fees saved as restricted funds to cumulatively total over \$100 million by 2013.
- In addition to the landfill, Wheelabrator also operates a resource recovery facility (incinerator) which brings in another \$1,034,200 per year.

Discussion

In looking to the future, the Township officials must first decide what they desire to achieve. Of course this comprehensive plan is a start. In answering the question of “where do we go from here”, it is recommended that they first consider quality of life issues that will affect everyone in the community. Asking what improvements, changes, and additions will add value to the community and its people is a profound question.

They may wish to consider infrastructure and capital improvements that add greater value to the Township and which can be leveraged into other improvements. Projects and programs should be considered that attract new businesses or which attract upscale residential developments with higher assessed home values.

Can money be set aside to leverage grants and open space funds? In short, what can the Township do to make Falls a more vibrant, successful, and economically healthy community in its own right? If this effort is successful, there will be even less need to rely on the already low real estate taxes and less concern about diminishing host fees.

In addition, maintaining a low (perhaps lowest) tax rate while continuing to provide quality services would naturally be a worthy goal. This low tax rate would continue to make Falls Township a popular choice when compared to those municipalities with higher tax rates.

Observations

A review of the current 2003 budget reveals these general observations:

Code Enforcement

Code enforcement revenues appear to be in line with expenditures especially when overhead and all soft costs are added. Various revenue accounts were included in the analysis of what is considered code-related revenues.

Park and Recreation

A \$1,000,000 reserve in the park and recreation fund was put aside in 2000 so that the Township could use the future interest earnings to support park and recreational operations. The Parks and Recreation Department offers various recreation programming on a year round basis. Children's programs include karate, arts and crafts, modern dance class, various nature programs, youth activity night and teen dances. Adult programs include karate, yoga, open gym basketball and volleyball, and various nature programs. The Parks and Recreation Department also offers various bus trips and a six week summer camp program for children ages 5 to 13 years old which runs Monday through Friday, 9:00 A.M. to 3:00 P.M. at one of the local elementary schools. The Parks and Recreation Department is responsible for ten neighborhood parks, three sports complexes, and a 228 acre community park (includes a 70 acre lake) that offers all types of recreational activities throughout the year. The newly renovated Pinewood Pool will be opening in 2004 on Memorial Day weekend for the first time in years. There are also outside agencies that run various sports programs for the Township, such as soccer, baseball, softball and basketball. It is also noted the Township has made exceptional strides toward preserving large areas of open space for future parks and recreation.

Street Lights

Street lighting costs are paid from a separate tax fund.

Police

No unusual budget-related costs were noted in the police budget. It is commendable that some of the host fee funds are being utilized for crime prevention programs.

Fire Tax

Three volunteer fire companies split the 5 mills of real estate tax (\$413,903 in 2003) proportionally. The fire companies own their own equipment and their own stations. Although there will undoubtedly be some objection from the fire companies, the Township may want to think about directing some of the millage toward an outright purchase of future vehicles in the Township's name. Thus, if anything ever happens to any of the companies the Township will already own the equipment and will not need to repurchase it. This could potentially save the Township hundreds of thousands of dollars in equipment costs.

In the meantime, the excellent working relationship with the volunteers should be encouraged and commended.

Library

A real estate tax levy of .50 mills currently yields about \$46,000 which is given to the private Fallsington Library each year. It is unknown if the library is in need of expansion, or renovation at this time. It is a known fact, however, that good libraries generally enhance the quality of life in a community.

Capital Reserve Fund Budget

The Capital Reserve Fund budget is prioritized annually by the staff. The Board of Supervisors make the final determination during the annual budget process regarding the capital expenditures for that year. At the present time, only the water and sewer repair and rehabilitation schedule and the road paving schedule are set up in a ten year capital program. In order to get a better sense of the major capital expenditures that will be necessary in the future, it is imperative that the Township put together a ten-year capital improvement plan. This should include vehicles, major equipment, buildings, land improvements, and facilities.

Water and Sewer Funds

The Township owns no public treatment facilities; only distribution facilities. Water treatment and waste water treatment is purchased from others. Thus, the only capital costs are for ongoing upgrades and repairs to the water and sewer lines and water storage tanks.

Capital Reserve and Host Fees

There is a capital reserve fund which appears to have been set up to accommodate the annual capital needs of the various departments. Road projects, traffic signals and new police cars are purchased from this fund, rather than list the line items in departmental budgets. This is common in local government budgets and has the effect of being able to view all of the annual capital needs in one fund. The current year capital reserve fund should be part of the 10 year capital improvement program.

Host Community Fees Fund

This is the heart of the Falls Township budget. The 2004 budget reveals that the Township has amassed \$27,000,000 in restricted reserved funds carried forward into the current budget. The source of funds is the landfill and incinerator. The Board of Supervisors wisely chose to restrict these funds for use in long-term projects.

The budget further shows another \$4,000,000 being added to the restricted funds in 2004. The Finance Director expects the amount to be much higher by the end of the year.

At this rate, the Township will come very close to the stated goal of amassing \$100 million in reserve funds by 2013.

Future Interest Earnings

Even at the current interest rates of less than 2% the Township would earn \$2,000,000 in spendable funds from a \$100 million "endowment". With the interest rate back to a more "normal" 6%, the annual yield would be \$6,000,000. These funds could be used for continued capital improvements and for operational needs, the goal of which is to reduce the overall tax burden for the residents and businesses.

These fees alone, however, will not sustain the Township forever. New revenue sources must also be considered.

Future Revenues

In order to offset the eventual loss of host fee revenues, other sources of revenues must be considered. This should be done with an interest in achieving a better equity among all tax paying groups. It should also be remembered that Waste Management provides regular trash collection and yard waste service to Township residents without cost as a part of its contract. This is perhaps a \$260-\$400 value per home per year (depending upon the need for leaf collection) that will need to be replaced when the landfill closes and the contract terminates - unless some other expansion is approved.

Future Possible Tax Sources

- Consider equity of taxes from all sources.
- If Pennsylvania lawmakers increase the current \$10 Occupational Privilege Tax (OPT) to a new \$50 Municipal Services Tax (MST), the yield will increase five-fold. This has been discussed under many of the recent scenarios.

$$18,000 \times \$10 = \$180,000 \quad 18,000 \times \$50 = \$900,000$$

- Real estate tax.

This is one of the repeated targets of so-called tax reform efforts in Harrisburg. Tax reform of real benefit to local municipalities involves giving local elected officials greater choices of taxation, rather than limiting the choices or forcing certain taxes on the local municipalities. If local governments had the ability to select their own tax mix, they could achieve a greater equity of payments compared to costs of services actually rendered.

There is potential for a large development to occur at the 1,200 acre U.S.X. Fairless Works site. Both heavy and light industrial users would be most attracted to the site.

- Earned Income Tax (EIT).

It is estimated that 40% of the current residents now pay the EIT in another community while 60% do not. The rate may climb in the near future as more communities in the immediate area add the tax. Until it does, it may not be advantageous for the Township to enact the tax. There would have to be a good reason to add a tax at this time, when the landfill and resource recovery facility provide so much revenue. 3,102 workers or 16.8% of the Township resident work force work in Falls Township. At present, these are part of a group of employees that are "protected" from having to pay an earned income tax. It is not so much that Falls Township needs such a tax to support its fiscal demands. It has more to do with the fact that approximately 7,462 of Falls Township residents, including those working in Philadelphia, are paying this tax and revenues are kept by the collecting municipality until and unless Falls Township elects to enact their own. If the rate of Falls Township residents paying the tax in other communities where they work crosses over 50% to 60%, it may be time to reconsider enacting the tax in Falls Township. The rationale would be that there would be a substantial amount of money that the residents are already paying to other jurisdictions which could be utilized by the home township. The addition of this tax could be coordinated with the time when the GROWS host fees would terminate.

Of course, if the Pennsbury School District ever enacts the tax, the Township would need to take a serious and immediate look at levying the tax. If not, the Township would lose claim to ½ of one percent of the tax that would otherwise be earmarked for Falls Township. This becomes more problematic if any other municipality in the school district ever approved a ½ percent tax, since Falls residents would then be paying a disproportionate share of the tax to the school district compared to other taxpayers of the district residing in other municipalities.

- Real Estate Transfer Tax – Could increase if new home sales continue at current pace and more people desire to move into existing and new homes in the Pennsbury School District. In short order, this revenue source can be expected to equal approximately \$600,000 per year by the year 2006.² It should be remembered that significant tracts are recommended for Age Qualified Residential zoning. If these developments are realized, the real estate transfer taxes could be significantly higher.
- Mercantile Tax and Business Privilege Tax are not available after 1988.
- Occupational Assessment Tax - Not recommended, due to inconsistencies of enforcement. In short, it is not a popular tax among taxpayer groups.

Future Possible Fees

- Act 209 fees, as a result of the enactment of a Traffic Impact Fee ordinance.
- Raising building permit and related fees to continually insure that development and construction interests are paying their fair share.

Future Possible Grants

There are many opportunities that present themselves to local municipalities for grant funds. Although they generally come with a public purpose (i.e. “strings”) attached, they can be extremely beneficial to the township. Some of the more common ones expected would be:

- Open Space grants.
- PennDOT programs.
- Recreation grants.
- Historic preservation grants.
- Charitable trusts.

²Presently, transfer tax revenues are budgeted at \$425,000 per year. This could increase as follows: 10% appreciation (\$42,500 per year) plus new residential development (assume 20 houses per year for three years having average sales price of \$300,000 x .005 = \$30,000) plus resales of new homes at rate of every seven years (60 x \$300,000 divided by 7 x .005 = \$12,857). Calculated as follows: \$425,000 + (\$42,500 x 3 = \$127,500) + \$30,000 + \$12,857 = \$595,357, say \$600,000.

Land Use Considerations

1. **Age qualified residential communities.** The Federal Fair Housing Act authorized the permissible age restriction for housing persons 55 years of age and older. As previously mentioned, this is a very popular style of community in Bucks County and a few examples are:
 - **Fox Run Preserve, Solebury Township**
 - **Heritage Creek, Warwick Township**
 - **Ivygreene at Northampton, Northampton Township**
 - **Legacy Oaks at Northampton, Northampton Township**
 - **Legacy Oaks at Warrington, Warrington Township**
 - **Traditions of Washington Crossing, Upper Makefield Township**
 - **Village of Buckingham Springs, Buckingham Township**
 - **Villas of Flowers Mill, Middletown Township**

The benefits of such a community are many fold: First, modern independent upscale housing is provided for persons in a manner which is convenient as they age. Typically, the housing is provided on one floor, the master bedroom is on the first floor, doors and hallways are wider, security and maintenance is provided by a residents' association, all of which appeal to aging persons who while still employed are also looking for the benefits of retirement, such as longer vacations, working fewer hours, and the like. In addition, these communities provide a secure and maintenance free environment. Typically, the homeowner's association maintains the exterior of buildings, lawns and roads. Finally, age qualified communities provide facilities such as fitness centers, clubhouse with pool and other leisure time activities.

The benefits to the Township are also many:

- **First, active seniors continue to reside within the Township in close proximity to their families, church and jobs.**

- The wealth effect from these individuals will be realized within the local marketplace: Purchase of retail goods and durable items (new cars, televisions, furniture, etc.), as well as investment in local banks, insurance companies and repair shops which will continue to support local businesses.
 - Infrastructure within the age qualified communities, such as streets and utilities, will be maintained by the community and typically not dedicated to the Township for maintenance. Children under age 19 are not permitted. Thus, taxes paid to Pennsbury School District will provide a net positive impact since school age children will not be associated with the community.
2. **Industrial/Commercial Landfill.** Steady expansion/redevelopment of existing commercial, industrial and industrial park property should be encouraged in areas planned and zoned for such use.
- Renovations of older buildings and development of new facilities will strengthen the tax base within the Township and School District.
 - Renovations and development will also increase employment opportunity for residents of Falls Township and the immediate region; and support the many service jobs which currently exist in the Township (the Demographic Profile of the Census indicates 32.1% of Falls residents work in services; arts, entertainment, recreation; finance, insurance, real estate; and retail trade).
 - Consider whether a landfill expansion can be accommodated without adverse environmental, social or traffic impacts. If so, the host fee and trash collection service(s) would continue and perhaps build a reserve that could eliminate altogether the need for any real estate tax increases or earned income taxes in the future.
3. **Keystone Opportunity Improvement Zone (KOIZ).** The Falls Township Board of Supervisors have enacted Ordinance 2004-09 which creates a Keystone Opportunity Improvement Subzone for an area of 1,258.9 acres identified as the "Proposed Falls Township Keystone Opportunity Improvement Subzone".

- The KOIZ is eligible for tax exemptions, deductions, abatements and credits for a period of 15 years. This means that 100% of real property tax, earned income tax, business privilege tax, occupancy and use tax, local sales and use tax, mercantile license tax, wage tax, and net profits tax, to the extent they are now or hereinafter imposed by the Township, are not applicable to businesses that locate within the Falls Township Subzone.
- The KOIZ authorizes qualified businesses to obtain state and local tax incentives to locate within the approved subzone. The subzone has been approved by all three taxing bodies: Falls Township, Pennsbury School District, and Bucks County.
- Subzone refers to approximately half of what has previously been referred to as the U.S. Steel Corporation Fairless Works property.
- In order to ensure compensation to the Township for police, fire and other municipal services which will benefit the subject KOIZ property, USX will pay \$75,000 per year to the Township for the fourteen (14) year life of the KOIZ. The Township is authorized to withdraw monies to fund the provision of municipal services or any other general municipal purpose.
- It is intended that the KOIZ designation will create an opportunity for new industry to increase the number of jobs available, primarily in the manufacturing and transportation sectors.

Recommendations

1. Continue to actively monitor the activities at the GROWS and Tullytown landfill and the Wheelabrator incinerator. Adjust future budget projections as often as possible, but at least annually, to reflect revised tonnages and expected host fees.
2. Encourage responsible development of the USX Fairless Works site in such a way as to enhance the tax base and provide attractive employment centers.

3. Prepare a 10 year comprehensive capital improvement plan which includes all anticipated needs and desires of the Township. Besides annual and ongoing items such as police vehicles and equipment purchases, the plan should emphasize quality of life improvements and improvements which add value to the Township and its infrastructure. Roads properly constructed and newly paved with adequate drainage, for example, are attractive to new businesses desiring to locate into the Township. Park improvements indicate to new residents that the Township cares about the youth of the community (as well as other age groups) and encourages healthy recreational activities.
4. Utilize Township fire tax funds in part to make future purchases of new trucks that become titled to the Township. Be prepared for any eventuality that could happen to a local fire company no matter how viable they may be today.
5. Support the local library to the greatest extent possible. Keep in mind that libraries generally enhance the overall quality of life for its residents.
6. Jealously guard the Host Community Fee Fund and resist any future pressures to utilize the funds for operational expenses or to fund post retirement programs. If these programs are granted through amicable collective bargaining or through arbitration, a method should be found to fund them primarily with annual tax dollars.
7. Periodically review all building permits and related fees to insure that the overall costs of development and building construction pays for itself without utilizing tax dollars. This review should include identification of all significant and identifiable overhead and soft costs. In addition, prompt processing of subdivision and land development applications which the Township extends to applicants is a big plus within the marketplace having obvious appeal to applicants. The Township should not hesitate to add additional staff or consultants to help facilitate this process since virtually all the costs can be back charged to applicants, which when at reasonable rates are readily accommodated by applicants and businesses.
8. Monitor the recreation needs and interests of the community for all age groups. Utilize capital funds to construct facilities that will benefit the community and improve the quality of life. Consider increases to existing or future fee-driven programs operated by the Falls Township Recreation Department.

9. Upgrade water and sewer lines with the objective being to decrease future maintenance and operational costs.
10. Seek expert financial advice on the best and safest long term investment plans to yield the greatest return on the HCF funds.
11. Stay abreast of any movement in Harrisburg toward meaningful tax reform. For most local governments in Pennsylvania, the most effective reform is to give local officials the greatest array of taxes possible so that tax levies can be locally equitable.
12. Consider funding a future tax study to investigate whether various taxpayer groups are paying for and receiving their fair share of services from the Township. Specialized cost accounting can reveal, for example, if industrial entities are paying a fair share of total taxes (real estate, real estate transfer, OPT, etc.) compared to the services (police and fire protection, traffic signal maintenance, road paving) they receive from the Township.
13. Consider doing a Traffic Impact Study (Act 209) to leverage funds used toward future road improvements. This would allow for future development to pay a greater share of traffic improvements costs. However, the costs of preparing the study need to be carefully weighed against the actual fees that could be collected and perhaps the impact upon future commercial and industrial development. It should be noted that Act 209 permits the creation of sub districts which could include only portions of the Township - those portions with the greatest need for future road infrastructure improvements.
14. Take advantage of all future grant opportunities. Designate a staff person to be responsible for grant applications and coordination.

15. Track the *value added* relationship of the .5% transfer tax which is currently collected by the Township. Based on recent information, it seems clear that the value of home sales in Falls Township has been on the rise. This is of course of great consequence to residents who are selling homes and reflects the popularity of the Township - and the School District - within the region. However, as sales remain brisk of resales and new homes the percentage of revenues will increase. This should portend a valuable addition to the Township budget. In addition, the Comprehensive Plan anticipates certain sections of the Township for additional residential development including age qualified (over age 55) residential communities. These communities have proven quite popular within the marketplace - see the Villas of Flowers Mill in Middletown Township as a fine example of recent sales in the over \$220,000 range.
16. Pursue the age qualified community zoning as an expanding land use in the Township. Consider underutilized areas zoned either commercial or industrial which are currently not contributing to local or school tax base as possible sites.
17. Continue to monitor the number of Falls residents who pay an Earned Income Tax (EIT) in other communities where they work. If the percentage of workers paying the tax crosses over 50% to 60% of the Township resident work force, it may be time to consider enacting the tax in Falls Township. Meantime, municipalities such as Falls that do not have an EIT should remain popular choices for prospective residents especially if they also work in the Township. For the median income wage earner, this would be a annual savings of \$501.29.
18. Consider presenting the draft findings of this report to the public in a series of public forums designed to encourage participation and free flow of other ideas aimed at enhancing the quality of life for Falls Township to make it an attractive place to live, work and shop.
19. Consider the implementation of programs that will enhance the business climate in Falls Township, including but not limited to the formation of an economic and community development corporation.

Chapter 9

SURROUNDING MUNICIPALITIES

Land uses of contiguous municipalities and their Comprehensive Plans have been inventoried to determine in what manner adjacent land uses or proposed uses are compatible with existing or proposed land uses in Falls Township. Where appropriate, measures are proposed to provide buffers where practicable or create transitional uses between disparate uses. This chapter also includes a statement of compatibility with the County Comprehensive Plan.

Tullytown Borough

Tullytown Borough is one of two boroughs which are contiguous to Falls Township. Tullytown Borough shares a very irregular boundary at the southwest corner of the Township, extending generally from Levittown Parkway to the Delaware River. According to the Zoning Officer and the Borough Secretary, Tullytown Borough does not have a Comprehensive Plan. According to planners from Bucks County Planning Commission assigned to Tullytown Borough, the Zoning Ordinance has a Statement of Community Goals and Objectives which serves as a guideline in lieu of a comprehensive plan. The principal goals from the Statement of Community Goals and Objectives are listed below:

- **Future Growth and Development** - To guide the form and location of growth within Tullytown Borough in a manner conducive to the health, safety, and welfare of its residents.
- **Residential Areas** - To maintain the primarily residential character of Tullytown Borough and attain those qualities which will further enhance its value as a place to live.
- **Commercial Areas** - To make a wide range of goods and services available to Tullytown residents by providing for a variety of commercial uses in the Borough.
- **Industrial Areas** - To support Tullytown's industrial base while protecting existing residential areas in the Borough.
- **Circulation** - To attain a circulation system that serves area travel demands in a safe, efficient, and economical manner.

- **Environmental Protection** - To protect the rights of Tullytown residents to clean air, pure water and other natural, scenic, historic, or aesthetic resources and to guarantee a quality environment for present and future population.
- **Recreational Opportunities** - To enhance the quality and availability of passive and active recreational facilities in Tullytown Borough.

The Borough makes no specific provisions for interfacing land use with Falls Township.

Township land use patterns, both existing and proposed, generally mirror the uses adjacent in Tullytown Borough.

In addition, the Township has negotiated an agreement which ensures that passive recreation shall prevail as the end use for not less than 2,000 acres which are substantially the lands and waterways of the Penn Warner Club. These waterways include portions of the Middle and Lower Van Sciver Lakes, form approximately one-third of Tullytown Borough's boundary with the Township, and these waterways are protected as a part of the Township agreement.

Two significant landfills which extend into Falls Township emanate from Tullytown Borough. The Falls Township Comprehensive Plan makes no recommendations that are inconsistent with land uses immediately adjacent in Tullytown Borough.

The greatest incongruent land use in Tullytown Borough with that of Falls Township occurs along the westerly side of U.S. Route 13 where apartments exist which are positioned adjacent to a township park in Falls Township. With the exception of the aforementioned apartments, the institutional uses (Walt Disney Elementary School property), recreational uses (PA Fish Commission Levittown Lake) and single family neighborhoods straddle across municipal boundaries with virtually no indication that they are situated in different municipalities.

Bristol Township

Bristol Township is situated along Falls Township's southwest border between Tullytown Borough and Middletown Township. The current Comprehensive Plan was prepared in December 1986 and is projected to cover the twenty year period from 1986 to 2006.

Under Planning and Zoning History, the Comprehensive Plan acknowledges on pages 17 and 18 that the construction of the Fairless Works which officially came into existence in December 1950, a huge new plant on 3,900 acres of farm land in Falls Township (named for Benjamin J. Fairless, its president at the time) served as the catalyst for new housing by the Levitt organization and other builders to assemble land in Bristol, Falls and Middletown Townships in anticipation of providing new housing for the thousands of workers that were expected to be employed at the new plant.

Bristol Township has for decades consisted of one of the largest municipal populations in all of Pennsylvania, which in 1980 (according to the Comprehensive Plan) had a population of 58,733.

Major east-west corridors such as Oxford Valley Road, New Falls Road, Mill Creek Parkway and U.S. Route 13 via Tullytown Borough have connected the large population in Bristol Township with the employment and shopping sectors in Falls Township.

Levittown Parkway generally serves as the boundary up to Black Ditch Creek.

It should be noted in the Demographic Profile chapter that 1,460 Falls Township residents work in Bristol Township (second highest place of destination for Falls residents) and 1,949 Bristol Township residents work in Falls (14.1%) of the total Township employees (which also ranks second as place of residence).

The Comprehensive Plan makes no specific recommendations relative to its land use relationships with neighboring municipalities. However, in the case of Bristol Township's boundary with Falls Township the land uses are largely single family residential, largely built out and compatible with the land uses which have been established in Falls Township. This includes the shopping center area bounded by Olds Boulevard and Hood Boulevard. In addition, numerous open space ribbons flow from residential communities in Falls Township in the direction of Bristol Township single family neighborhoods - including the County open space along the Queen Anne Creek.

Middletown Township

Middletown Township is a very large municipality that is contiguous to Falls Township for a length of approximately two miles at the very westerly edge of the Township, roughly between U.S. Route 1 Expressway and the Faith Baptist Church at Wistar Road.

The Comprehensive Plan for Middletown Township, adopted by the Middletown Township Board of Supervisors March 1, 1994, identifies land uses which consist largely of commercial (the Oxford Valley Mall and frontage properties along Oxford Valley Road), light industrial uses (Cabot Boulevard situate between the Conrail tracks and U.S. Route 1), and single family residential/open space along both sides of Trenton Road adjacent to areas generally shown as open space, institutional, and multi-family land uses in Falls Township.

The Falls Township Comprehensive Plan recommends continuation of land use patterns presently in place along the Middletown Township boundary. A small commercial corner at the intersection of Trenton Road and Oxford Valley Road and all other future land use recommendations are similar or identical to the existing land uses manifest in Middletown Township.

The Middletown Township Comprehensive Plan does not identify adjacent land uses in Falls Township nor does it attempt to inventory a relationship between the two.

Middletown Township is an important work destination for 1,406 Falls Township residents (third highest) and similarly is the third highest place of residence for Falls providing 1,277 or 9.2% of the Township work force.

Lower Makefield Township

Lower Makefield and Falls Townships share a boundary of approximately five miles in length which stretches from Old Oxford Valley Road to Lafayette Avenue a short distance from the Delaware River. It is the longest municipal boundary for both townships. With the exception of a short distance along Elbow Lane, the municipal boundary between the two townships does not follow a road or a significant natural feature and thus the separation between the two townships is often difficult to recognize.

Lower Makefield Township's most recent Comprehensive Plan was adopted by the Board of Supervisors October 20, 2003. Page 92 of the Lower Makefield Township Comprehensive Plan lists the planning and zoning policies in effect along with a brief description of issues of shared concern. Listed below is an excerpt from the Lower Makefield Township Comprehensive Plan:

“Falls Township lies to the south of Lower Makefield, with their common border just below Big Oak Road. There are also several properties between Morrisville Borough and Lower Makefield that are in Falls Township. The section of Falls Township adjoining Lower Makefield is somewhat separated from the rest of Falls due to the railroad line and Route 1.

Lower Makefield owns 47 acres of land in Falls Township. This land is part of Five Mile Woods.

The portion of Falls Township between Stony Hill Road, Route 1, and the Lower Makefield Township border is zoned low-density residential with the intent of preserving some open space in this area and allowing for single-family residences on 29,000-square-foot lots. On the other side of Route 1 are areas designated for light industry and offices. The area of Falls bounded roughly by Stony Hill Road, West Trenton Avenue and the Lower Makefield Township border is zoned largely for neighborhood conservation in recognition of an existing developed neighborhood.

As with Middletown Township, an issue of shared concern involves highway access and circulation. Lower Makefield and Falls Township are coordinating efforts, along with PennDOT and area developers, to improve the Oxford Valley Road/Route 1 interchange. The southbound on/off ramps to Route 1 lie in Lower Makefield; the northbound on/off ramps are located in Falls Township, thus necessitating a cooperative effort to improve traffic flow.

Another issue involving the two municipalities concerns drainage and water quality in the Rock Run/Martins Creek subwatershed.”

It is interesting to note that Falls Township and Lower Makefield Township routinely share common land uses between and along adjacent neighborhoods. With regard to open space and future open space preservation, it is noted that Lower Makefield Township owns 47 acres in Falls Township which immediately abuts the north side of U.S. Route 1. This area constitutes the southerly edge of the “Five Mile Woods” public open space preserve situated between Big Oak Road and the Falls Township boundary.

It should also be noted that Falls Township has acquired land immediately adjacent to the southerly boundary of Lower Makefield Township, this having been the open space behind the Sadowski farm. A large central area proposed as future open space in Falls is identified as the Guzikowski farm, which if acquired or preserved would extend the aforementioned Five Mile Woods public open preserve all the way to Stony Hill Road.

Falls and Lower Makefield Townships also share important north-south roadways. These consist of the following roadways identified as arterial roads:

1. Oxford Valley Road;
2. Stony Hill Road;
3. Pine Grove Road (an extension of U.S. Route 13).

The following roads are identified as collector roads:

1. Makefield Road - which continues as Makefield Road through Falls Township to parallel U.S. Route 1;
2. Ferry Road - which continues as West Trenton Avenue to Lincoln Highway in Falls Township.

A specific comparison between the Future Land Use Map identified in the Lower Makefield Township Comprehensive Plan and the Future Land Use Recommendations contained in the Falls Township Comprehensive Plan Update represents a virtual compatible relationship with uses existing or proposed along both sides of the Falls/Lower Makefield Township line. The one exception would be in the area of West Trenton Avenue along the edge of Morrisville Borough for a length of approximately 2,000 feet. This area of Falls Township has been developed/or is being redeveloped for neighborhood commercial including office uses while on the Lower Makefield side properties which largely face Ferry Road are single family residential.

Lower Makefield is the other large municipality along with Falls Township in the Pennsbury School District (the Boroughs of Tullytown and Yardley are also members). William Penn Middle School, Charles H. Boehm Middle School, and Pennwood Middle School are all located a short distance from the Falls Township boundary along Makefield Road.

Morrisville Borough

Morrisville Borough borders Falls Township on the northeasterly edge of the Township between the Delaware River and the north edge of U.S. Route 1, roughly between Pennsylvania Avenue and West Trenton Avenue. The Borough does not have a current Comprehensive Plan. According to George Mount, Borough Manager, the previous Comprehensive Plan was prepared in 1982. Morrisville Borough north of Route 1, the Borough boundary with the Township is quite convoluted but in general consists of various densities of single family residential particularly adjacent to the Morrisville Golf Farm and various properties along West Trenton Avenue.

Township properties are zoned and proposed for either Neighborhood Commercial or Multi-Family Residential in that area and the Township has taken the steps to require landscape buffers where practicable in order to protect the adjacent single family uses in the Borough. The Neighborhood Commercial is intended to provide uses of a less dense scale that would serve the local community. Adjacent to Snipe's Farm and Nursery the Borough exhibits R-3 and Residential (mixed use residential including multi-family and garden apartment type uses) and C-2 Shopping Center District at Plaza Boulevard and West Trenton Avenue which blends with commercial uses established in both Falls and Lower Makefield Townships.

South of U.S. Route 1 Borough lands are largely zoned Residential, which is not consistent with uses and zoning in Falls Township. This one area of disparate land uses occurs along both sides of East and West Post Road where in the Borough the zoning calls for single family residential whereas in Falls Township lands south of Post Road are proposed for industrial land uses. On the east side of Pennsylvania Avenue a small single family residential neighborhood in Falls Township is situated adjacent to the single family residential community in Morrisville Borough.

Pennsylvania Avenue in Morrisville serves as a main interchange with U.S. Route 1, which channels traffic to the Tyburn Road entrance at the USX industrial site.

Bucks County Comprehensive Plan

The current County Comprehensive Plan was published in December 1993 and includes a 1990 Bucks County Land Use Map. The purpose of the Comprehensive Plan is to:

“Ensure that Bucks County government provides guidance to its agencies, municipalities, and the general public in the planning, development, and management of the County’s natural and built resources. The Plan identifies issues, concerns, obstacles, strengths and opportunities which need to be addressed if the quality of life in Bucks County is to be sustained and improved well into the 21st century”.

The Plan is a broad and general report and makes no specific land use recommendations specifically for Falls Township.

The Plan includes current and projected population by region and planning area, 1990-2020, current and projected housing units by region and planning area, 1990-2020, 1990 land use distribution by region and planning area, percentage land use comparisons by region and planning area, but this information is presented for the Pennsbury Planning Area which consists of the following municipalities: Falls Township, Lower Makefield Township, Morrisville Borough, Tullytown Borough, and Yardley Borough. The census information and projections are presented in the aggregate for the planning area and not by individual municipality.

The Housing and Economic Activity chapter includes the following goal:

“Goal: Provide diverse, affordable housing opportunities for all County residents, while managing the impacts of housing growth on the character and environment of the County.”

Comment: This goal is consistent with the stated goals and objectives of the Falls Township Comprehensive Plan.

The economic activities section includes the following goal:

“Goal: Pursue a diversified and stable economy that provides business and employment opportunities for all segments of the County population and is compatible with growth management and quality of life objectives.”

Comment: This goal is consistent with the stated goals and objectives of the Falls Township Comprehensive Plan.

The Natural Resources chapter of the Plan includes the following goal:

“Goal: To sustain and restore the health and abundance of the County’s natural resources through sound utilization, responsible environmental practices, orderly development, and judicious land use controls.”

Comment: This goal is consistent with the stated goals and objectives of the Falls Township Comprehensive Plan.

The Water Supply chapter includes the following goal:

“Goal: Conserve, enhance, and manage the water resources of Bucks County.”

Comment: This goal is consistent with the stated goals and objectives of the Falls Township Comprehensive Plan.

The Growth Management chapter includes the following goal:

“Goal: Foster land use planning and controls which allow for orderly growth.”

The County Plan goes on to state:

“Much of the previous development in the County has been concentrated in lower Bucks. Lower Bucks has responded to growth pressures in the past by providing the infrastructure and services needed to serve this development. Currently, lower Bucks is served by an extensive transportation network, as well as public water and sewer facilities. Development is expected to continue in this region, although at a lower rate than in the past. This phenomenon can be attributed to the fact that over 70% of Lower Bucks is intensely developed and there is minimal developable land remaining. Consequently, potential future growth may be linked to infill and redevelopment in urbanized areas, along with improvements and upgrades in infrastructure.”

“In the Pennsbury area, residential growth is likely to continue, primarily in Lower Makefield Township. As the remaining municipalities are fast approaching build-out for residential development, continued non-residential development in Falls Township may be key to maintaining the overall stability of this area.”

The Growth Management Tools section states the following:

“Since all municipalities in Bucks County have zoning ordinances, this plan has not identified specific locations for future land use in each individual municipality. Therefore, municipalities have the responsibility to assess growth issues, prioritize solutions to growth problems, and use the implementation techniques and activities outlined in this plan to identify and designate growth areas within the municipality.”

Comment: The Comprehensive Plan concurs with the above statements and undertakes recommendations to implement continued non-residential development, as well as quality infill and revitalization/redevelopment of older sections of the Township.

The Transportation element of the County Plan suggests an interregional transportation center between Route 13 and Morrisville, generally in the location identified as the “Falls” proposed station along the Norristown to Trenton proposed cross-county metro line.

Comment: This issue is discussed in greater detail in Chapter 6, Cross County Rail Line and is consistent with land use recommendations of the Falls Township Comprehensive Plan.

Chapter 10

LOCAL WATER RESOURCES

Background

When it comes to planning, water resources management has not historically been the topic of highest priority, particularly in the northeastern United States. The traditional approach to the issue of stormwater in populated municipalities is to drain it into pipes and channels, and convey it away from a given area as quickly as possible. Let someone downstream worry about it. Now many public officials are beginning to rethink that strategy. They are realizing that stormwater truly is a resource to be protected.

Surface Water Quantity

The flows in many southeastern Pennsylvania streams are often very erratic. They can range from a trickle on any given summer day to a raging torrent overnight caused by a thunderstorm. Natural dampeners to this type of volatile hydraulic response have been diminished as a result of urban growth.

Drought conditions are very stressful to aquatic environments. Water temperatures increase and dissolved oxygen levels decrease. Algae often flourish. Other more desirable organisms, such as fish, cannot tolerate such extreme conditions.

On the other end of the spectrum, excessive stormwater runoff is a major cause of flash flooding, stream bank scouring, habitat destruction, and streambed sedimentation. This problem can be greatly exacerbated when peak discharges from various portions of a drainage area coincide and/or accumulate as the water moves downstream.

For the last 30 years or so, the standard mechanism for attenuating peak discharge rates has been the detention basin. However, engineers have come to the realization that detention basins do nothing to reduce the total *volume* of runoff. They also do not generate any water quality benefits. In some cases, they cause more problems than they solve.

The ultimate goal should be to get as much water into the ground as possible. Some of that water will seep laterally and exit the ground in the form of springs. These springs maintain the base flow in a stream during dry periods. The remaining water will infiltrate deep into the bedrock and recharge local aquifers. Hence, the volume of runoff should not be allowed to increase as a result of development.

Under the Pennsylvania Stormwater Management Act (Act 167), counties are required to establish a watershed based stormwater management plan for each designated watershed. Funding has generally been available from PADEP to cover 75% of the cost for developing the plan. The recommendations in the plan are to be implemented by each of the affected municipalities. To date, no funding has been provided for this implementation.

PADEP has refined the Act 167 program over the past few years to include more complete consideration of water quality impacts associated with new land development. However, it should be noted that many watersheds in Bucks County have not been studied yet.

Surface Water Quality

However, in September 2002 the Bucks County Planning Commission published the *Otter Creek Watershed Restoration and Protection Plan*. The Plan outlines the problems and needs of the Otter Creek Watershed to reduce existing flooding and erosion problems and improve water quality.

Falls Township is one of eight municipalities in the Watershed. The approximate portion of the Township north of New Falls Road and west of Tyburn Road and Stony Hill Road are included in the Watershed.

In Pennsylvania, specific water quality standards for every stream and water body have been established in Title 25, Chapter 93. These standards consist of designated uses for each stream (such as recreation, potable water supply, etc.). They also consist of scientific criteria that define what chemical and biological compounds are allowable without affecting those designated uses. Many parameters are listed covering all types of pollutants, such as fertilizers, pesticides, salts, bacteria, and metals.

Since the late 1990s, PADEP has undertaken an assessment of waterways throughout the Commonwealth. Results so far indicate that many of the streams, in all types of settings, are "impaired". One of the main sources of degradation is polluted runoff. Those streams that are impaired are placed on the so-called 303(d) list and earmarked for remedial action in the form of TMDLs (Total Maximum Daily Loads).

When Congress passed the Federal Water Pollution Control Act Amendments in 1972 (PL92-500), they stated as one of the primary goals that all surface waters in the United States shall once again be suitable for fishing and swimming. Dramatic progress has been made toward this objective, but in most areas the goal has not yet been fully achieved.

At first, the EPA and state agencies focused on reducing major pollution from municipal and industrial wastewater treatment plants. Next, they concentrated on stormwater runoff from cities, industrial facilities, and large construction sites. Under the auspices of the NPDES Phase II program, EPA is now requiring many additional municipalities in metropolitan areas to control pollution in runoff from municipal operations, small construction sites, and many other portions of publicly owned storm sewer systems. Permit applications were due by March 10, 2003.

Stormwater discharges in urban and suburban areas are a concern because of the high concentrations of pollutants found in these discharges. Development in urban areas substantially increases impervious surfaces such as streets, driveways, parking lots, sidewalks, and rooftops, on which pollutants from human activities are deposited and remain until a storm event washes them into nearby storm drains. Also fertilizers and pesticides are applied in high quantities to lawns and gardens.

When pollutants exit the land via sheet flow they are said to come from nonpoint sources. This phenomenon is very localized. When the runoff concentrates in gutters, swales, pipes, and other types of conduits it is then classified as a point source. The latter is what the law regulates.

It is the goal of PADEP to control pollutants as close as possible to the source. Measures for accomplishing this control are known as Best Management Practices (BMPs). *Permanent* BMPs can take the form of either structural or nonstructural measures. An example of the latter would be to add a provision to local ordinances requiring the preservation and protection of riparian buffers. Another approach would be to save certain open spaces within a proposed development. There is no better solution than to minimize the disturbance of existing soils, and to promote the growth of native plants and trees.

A number of potential structural approaches are outlined in the 1998 Pennsylvania Handbook of Best Management Practices for Developing Areas. These include such measures as the use of grass swales, bioretention areas, constructed wetlands, porous pavement, and infiltration trenches.

Pennsylvania regulates *temporary* stormwater impacts resulting from construction under the Erosion and Sedimentation Control Program. All earth disturbances of 5,000 square feet or greater require the preparation of an erosion and sedimentation control plan under Title 25, Chapter 102. This program will remain in effect.

Evolving PADEP Policy

In October 2001, the PADEP issued a draft version of the “Proposed Comprehensive Stormwater Management Policy”. It is their stated goal to improve water quality, sustain water quantity, and integrate federal stormwater management obligations by means of existing authority. This comes after years of addressing these issues separately.

PADEP is proposing a “best management” approach to stormwater control that will generally encourage, and sometimes require, infiltration of stormwater flows. This approach will reduce pollutant loading to streams, recharge groundwater tables, enhance stream base flows during times of drought, and reduce the threat of flooding and stream bank erosion resulting from storm events.

Another way of phrasing this goal is that PADEP would like municipalities and developers to avoid any further impacts to the natural hydrologic balance. Persons proposing new projects should calculate a pre-construction and post-construction water budget. In general, post-construction infiltration would have to equal pre-construction infiltration.

Administratively, PADEP is proposing to integrate the NPDES permitting program with stormwater management plans developed on a watershed-wide basis under Act 167. These Act 167 plans will include both water quality and quantity protections to be implemented by municipalities within the given watershed.

PADEP would also like to shift the emphasis from municipal boundaries to watershed boundaries. This will require a degree of cooperation between municipalities. Municipalities should also coordinate with the Bucks County Planning Commission and the Conservation District.

For the most part the above programs are aimed at new development. Other considerations may be necessary where problems are being experienced under current conditions. Existing stormwater facilities should be maintained. Some should probably be retrofitted to meet current standards.

Summary of Delaware River South Watershed Act 167 Stormwater Management Plan (as it relates to Falls Township - provided by Bucks County Planning Commission, May 5, 2004)

The *Delaware River South Watershed Act 167 Stormwater Management Plan* (May 2004) was prepared by the Bucks County Planning Commission in accordance with the requirements of Pennsylvania Stormwater Management Act 167 of 1978. The Delaware River South watershed runs along the southeastern boundary of Bucks County following the Delaware River and is composed of all or part of nineteen municipalities, including Falls Township.

The main objective of a stormwater management plan is to control stormwater runoff on a watershedwide basis rather than just on a site-by-site basis, taking into account how development in any part of the watershed will affect stormwater runoff in all other parts of the watershed. Stormwater runoff control is achieved via municipal ordinance that reflects the standards found within the Plan.

The Plan is the result of a study prepared with data developed on the physical features and characteristics of the watershed, such as soils, wetlands, topography, floodplains, dams and reservoirs, stream dimensions, and stream obstructions. Although the Plan is geared toward preventing new drainage problems and not solving existing ones, knowing where problems already exist aided the engineer for the study in developing key components of it, such as where to establish the required hydrologic modeling points in respect to potentially sensitive drainage areas.

Most important, an overall understanding of the hydrologic flow of the watershed as a whole is vital to applying any type of management measure or control. Information on existing land use and zoning was also collected, which helped the engineer determine the location of impervious surfaces throughout the watershed, giving a clue to how and where future development may occur in the watershed. Finally, all of this data was compiled into a geographic information systems (GIS) database, which was used in the analysis of the hydrology and to create many of the study maps.

A U.S. Army Corps of Engineers computer model, known as HEC-HMS, was used to calculate and evaluate flow patterns and volumes. The model was calibrated using actual stream flow and rain gauge data collected from stations in or near the watershed, regression models, and data obtained from the Federal Emergency Management Administration (FEMA) and the U.S. Army Corps of Engineers.

To make implementation of the Plan by the municipalities viable, a simple, but accurate method was developed for municipal officials, engineers and developers to abide by the Plan standards for post development control of stormwater runoff. Following the hydrologic modeling segment of the study, the watershed was divided into stormwater management districts and runoff rates were assigned to each.

After DEP approval of the Act 167 Plan, Falls Township will be required to adopt ordinance requirements consistent with the *Delaware River South Model Act 167 Stormwater Management Ordinance* (Section VI of the Plan) within six months.

See Appendix for excerpt from Delaware River South Watershed Act 167 Stormwater Management Plan.

APPENDIX

FALLS TOWNSHIP

**1991
COMPREHENSIVE PLAN
UPDATE**

COMMUNITY CHARACTERISTICS

SECTION II

COMMUNITY CHARACTERISTICS

A. HISTORICAL BACKGROUND

Falls Township is located in Lower Bucks County, and is an area long and rich in history. The most important factor in the development of the Township is its association with transportation: the Delaware River, the Delaware Canal, the railroads and highways.

Dutch settlements were established as early as 1616. A number of colonists came to Falls even before William Penn became Proprietor of Pennsylvania in 1681. The settlement of Crewcorne was founded just below the falls at a ferry crossing, but eventually disappeared. Tyburn, the scene of the first public execution in Bucks County (1683) was named after the public hanging site in England.

The only settlement of this period which has remained in continuous use is Fallsington. Fallsington is an example of a "cross-roads" village typical of its time. The Bucks County Courthouse established in 1663, is said to have been located in Fallsington until it was moved to Bristol in 1705. The Friends Meeting, whose first meetings were held in a private house on Biles Island, found a site for a meeting house in Fallsington on land donated by William Penn in 1692. Another donation by Penn was a tract of 120 acres, for a Falls commons. The Township itself was legally established in 1692.

The growth of Fallsington continued, with the construction of homes, an inn, public buildings, stores and small craftsmen's shops. Until the construction of Fairless Hills and Levittown, it was the largest village in the Township, and functioned for many years as a commercial center. In 1953, Historic Fallsington, Inc., was formed to safeguard and maintain the pleasant village atmosphere and historic buildings. The restored eighteenth century Burgess Lippincott House is the headquarters of this organization.

PENNSBURY

In 1682, William Penn began construction of his official residence, Pennsbury. The 8,431 acre site in Falls Township was chosen for its easy access to Philadelphia along the Delaware River. The land was gradually sold by Penn's heirs and the last original building was destroyed in 1864. In 1932, a small portion of the original site was purchased by the Commonwealth of Pennsylvania and reconstruction of Pennsbury Manor was begun. Pennsbury is now a Historical Site, open to the public.

Around the same time as development of Fallsington and Pennsbury was occurring, other areas began forming in the nearby region. Oxford Valley, named after an ox on a tavern sign and a ford over a local creek, was in existence before 1773. The site for Morrisville was chosen by Robert Morris for an industrial development at the falls in the Delaware River around 1795. This endeavor proved to be financially disastrous. The village was made a borough in 1804.

Tullytown was laid out in 1816 around the intersection of Bristol Turnpike and Oxford Valley Road, then the boundary between Bristol and Falls Townships. In 1891, the Borough of Tullytown was established on land taken from both Townships, but mainly from Falls.

TRANSPORTATION INFLUENCES

The proximity of major transportation systems influenced much of the Township's development. The earliest of these was the Delaware River. The Township is located at the upper end of the navigable portion of the river. In 1686, the Provincial Council ordered the construction of the King's Highway, which ran from Philadelphia to Trenton along an existing Indian trail, through Bristol, Falls and Morrisville. The Kings Highway still exists today as Route 13, following closely the original configuration. Additional roads and turnpikes were built through the Township in the eighteenth and early nineteenth centuries.

Other transportation systems were laid out through Falls in the nineteenth and early twentieth centuries. The Delaware Canal from Easton to Bristol was opened in 1832. A railroad line from Philadelphia to Trenton via Morrisville and Bristol was built between 1833 and 1835. This rail line became part of the Pennsylvania Railroad's main New York-Philadelphia line. The "West Trenton" cut-off of the Pennsylvania Railroad was built through the northern part of the Township at the end of the nineteenth century. These rail lines now accommodate SEPTA, AMTRAK and CONRAIL passenger and freight traffic between Philadelphia and Trenton. Inter-urban trolleys ran through Falls during the first quarter of the twentieth century although these lines have since been abandoned.

GROWTH OF FALLS TOWNSHIP

Despite these transportation systems, the Township remained predominantly rural in character, economy and population. Fisheries, tobacco raising and dairy farming were the mainstays of the economy in the nineteenth century. More recently, truck farming and sand and gravel mining became important. The King Farms Company in Falls was for a time the largest vegetable farm east of the Mississippi. The population increased slowly, from 979 inhabitants in 1784 to 3,540 in 1950.

In 1950, the character of the Township began to change. It began with the announcement by U.S. Steel to build the Fairless Works on 3,939 acres of farmland in Falls. A prime reason for the company's choice of this site was its location near the head of the navigable channel of the Delaware River, which could be used for bulk shipments of raw material and finished goods. The site was also at the center of East Coast markets and scrap iron supplies. Construction of the Fairless Works began in March, 1951, and the plant was at full production in December, 1953.

The construction of the steel works was the stimulus for the development of a number of residential communities in Falls and neighboring areas. Fairless Hills, sponsored by U.S. Steel, was built to house construction workers and employees of the Fairless Works. Proximity to the plant was a major reason for the construction of Levittown in what was at the time an otherwise relatively isolated area. Other considerably smaller subdivisions were built in Falls, bringing the total number of homes built between 1950 and 1970 to over 9,000.

As a result of the availability of housing and labor, many other industries gravitated to Falls Township. The population of the Township leaped from 3,540 in 1950 to 24,276 in 1955, and to 35,830 in 1970.

The Fairless Works continued to grow until 1973 when employment at the plant peaked at over 10,000 people. The Fairless Works was by far, the single largest employer in the area. However, after 1973, steelmaking operations at the Fairless Works and across the country began a steady decline. The downturn had a devastating effect on many small Pennsylvania towns that were built around steelmaking. By 1990, employment at the Fairless Works was 3,000, only 30 percent of the 1973 peak. Still, U.S. Steel remained the single largest employer in Bucks County.

Recent announcements by U.S. Steel that all or most of the remaining operations will be shut down brings to a close an important chapter in the development of Falls Township and Lower Bucks County. The area will be hard hit economically, however, the closure of the Fairless Works will be the impetus for planning efforts to develop a major land holding in Falls Township.

While the Fairless Works was the main driving force in the area through the sixties, the construction of Interstate 95 spurred a new wave of population growth. Connecting Philadelphia and Trenton to the remainder of the east coast, I-95 made commuting to other large employment centers easier. Lower Bucks County, including Falls Township, became attractive as suburban residential communities away from city congestion. By 1980, the increased population spurred on by I-95 was enough to offset the dramatic declines due to plant cutbacks. According to the 1980 census, Falls Township population reached 36,083.

LANDFILLS IN FALLS TOWNSHIP

The landfills that exist in the southern portion of Falls Township have officially been in existence since the early 1970's. The Warner Company, through its subsidiary Geological Reclamation Operations and Waste Systems, Inc. (G.R.O.W.S.), was issued permits to operate a 46 acre solid waste disposal facility at Bordentown and New Ford Mill Roads in August of 1970. The G.R.O.W.S. subsidiary was sold to Waste Management, Inc. which continues to operate this company today.

The facility was expanded several times including in 1974 (15.7 acres), 1980 (5.3 acres), 1981 (8.0 acres), and 1982 (1.2 acres). Prior to January of 1983, the landfill accepted all types of municipal wastes, sewage sludge, and industrial wastes. After 1983, the Old GROWS landfill, as it is now known, stopped receiving hazardous wastes from non-residential sources and in 1984, in accordance with an agreement between G.R.O.W.S. and the Commonwealth of Pennsylvania Department of Environmental Resources, all disposal operations were ceased and closure procedures began.

In 1988, G.R.O.W.S. made application to the Commonwealth to expand the original landfill by 160 acres. The expansion includes an 80 acre parcel to the east and an 80 acre parcel to the west. This proposal was approved and in 1989 construction began on the western expansion.

The operations at the landfill required mining of nearby lands to provide the necessary base and cover materials. These lands included Turkey Hill, and the Penn Warner Tract at New Ford Mill and Tyburn Roads, as well as other sites throughout in the Township. The land mining in conjunction with a high water table has resulted in the creation of numerous lakes which dot the lower half of the Township.

B. POPULATION AND HOUSING

The study of the population in some form becomes the basis for most major planning decisions. Population analyses serve to identify the size and density of various groups within a geographical region. Once tabulated, this data can be used to project future requirements for Township facilities and services.

Since the study areas in this report do not include any significant areas of residential zoning or uses, normal analyses and projections of population concerning Falls Township have not been included. However, population trends cannot be ignored since these factors will influence the surrounding non-residential areas. Projections of significant population growth will require corresponding growth in residential services, commercial shopping areas, utility services, and transportation services. Conversely, a projection of low population

growth will indicate that demands for these same services and facilities will not increase significantly.

At the time this study was initially being prepared, only preliminary data from the 1990 Census was available. Therefore many of the population numbers are based on projections from the 1980 Census. These projections are based on information from the Bucks County Planning Commission (BCPC) and the Delaware Valley Regional Planning Commission (DVRPC) where appropriate, 1990 Census data was used to verify the projections.

POPULATION CHANGES: 1980-1990

The BCPC population projections show Falls Township growing between 1980 and 1990. The BCPC population projection showed an increase of 5% between 1980 and 1990. According to the initial 1990 Census counts, the population actually decreased by 3% to 34,997. While these are the preliminary tabulations from the Census Bureau and are still subject to revision, there would have to be substantial revision to obtain the 5% growth figure that was originally projected.

**TABLE 2.1
POPULATION PROJECTIONS**

1980 POPULATION	BCPC 1989 PROJECTION	REVISED BCPC 1990 PROJECTION*	REVISED BCPC 1990 PROJECTION**	
			LOW	HIGH
36,083	37,117	35,350	33,400	37,975
*Based on cohort-survival method				
**Based on housing projection method				

It appears that the cohort-survival method, which is based on births, deaths and migration factors, is closer to the 1990 preliminary census data than the housing projection figures. This indicates a trend toward a smaller household size.

In the 1980 census, the persons per household figure for Falls Township was 3.0. The figure for all of Bucks County was 3.02, with the high being 3.77 in Northampton Township and the low being 1.81 in New Hope Borough.

Another factor that supports the concept of fewer persons per household is the fact that new housing units were constructed in Falls Township, even though the population had decreased. However, without the total housing count data from the U.S. Census Bureau, these concepts are nothing more than projections. What is significant, however, is that the population has decreased slightly.

INCOME AND EMPLOYMENT

The 1980 Census contained breakdowns of employment and income. This information in the 1990 Census is not available. It is important to remember that some of these figures, particularly income, are almost 11 years old. However, comparisons can be made with numbers from the 1980 data.

1. OCCUPATION

There were 16,862 employed residents of Falls Township. Only three municipalities in the Lower Bucks County area had more residents employed: Bristol Township, Bensalem Township and Middletown Township. The comparisons to adjacent municipalities are as follows:

**TABLE 2.2
EMPLOYMENT COMPARISONS**

MUNICIPALITY	TOTAL EMPLOYED	BLUE COLLAR (%)	WHITE COLLAR (%)
FALLS TOWNSHIP	16,862	51.0	48.6
BRISTOL TOWNSHIP	27,770	54.1	45.4
MIDDLETOWN TOWNSHIP	17,249	38.1	61.8
LOWER MAKEFIELD TOWNSHIP	8,038	18.0	81.8
MORRISVILLE BOROUGH	4,482	47.8	51.9
TULLYTOWN BOROUGH	1,100	52.5	47.0

Source: BCPC Analysis of U.S. Census Data

Table 2.2 shows that Falls Township had essentially an even mix of residents employed in blue collar jobs and white collar jobs. The census figures for Falls Township divided these categories even further as follows:

**TABLE 2.3
EMPLOYMENT BY TRADES**

BLUE COLLAR WORKERS							
CRAFTSMEN		OPERATIVES		LABORERS		SERVICE	
NO.	%	NO.	%	NO.	%	NO.	%
2,820	16.7	3,021	17.9	808	4.8	1,957	11.6
WHITE COLLAR WORKERS							
PROFESSIONALS		MANAGERS		SALES		CLERICAL	
NO.	%	NO.	%	NO.	%	NO.	%
1,933	11.5	1,366	8.1	1,460	8.7	3,444	20.4
Source: BCPC Analysis of 1980 U.S. Census Data							
Note: % is based on total employment for Falls Township							

The largest group of employees is in the Clerical category, with Craftsmen and Operatives as the next largest employment categories. The percentages for Falls Township are similar to the percentages of each category for the surrounding municipalities with the exception of Lower Makefield which has 52% of its workforce employed as professionals and managers.

2. LOCATION OF EMPLOYMENT

The location of employment for residents was also tabulated in the 1980 Census (Table 2.4). The data identifies those residents who worked in the County and those residents who worked out of the County. For Falls Township, these categories were almost equal with slightly more residents working in the County.

**TABLE 2.4
LOCATION OF EMPLOYMENT**

MUNICIPALITY	IN COUNTY		OUT OF COUNTY	
	NO.	%	NO.	%
FALLS TOWNSHIP	9,213	54.7	7,644	45.3
BRISTOL TOWNSHIP	16,200	60.5	10,570	39.5
LOWER MAKEFIELD TOWNSHIP	2,814	35.0	5,224	65.0
MIDDLETOWN TOWNSHIP	10,096	58.5	7,153	41.5
MORRISVILLE BOROUGH	2,068	46.1	2,414	53.9
TULLYTOWN BOROUGH	723	65.7	377	34.3
Source: BCPC Analysis of 1980 U.S. Census Data				

The "out-of-County" totals were further broken down to identify those working "In-Philadelphia", those "out-of-State" and those working elsewhere (Table 2.5). The majority of the residents not working in the County worked "out-of-State", most likely New Jersey. The number of workers commuting to Philadelphia was actually one of the lowest for the surrounding municipalities. Thus, most of the Falls Township residents work in Bucks County or in New Jersey.

**TABLE 2.5
LOCATION OF EMPLOYMENT**

	OUT-OF-COUNTY		PHILA.		OUT-OF-STATE		OTHER	
	NO.	%	NO.	%	NO.	%	NO.	%
FALLS TWP.	7,644	45.3	1,091	6.5	3,862	22.9	2,691	14.8
BRISTOL	10,570	39.5	3,320	12.4	2,817	10.5	4,433	15.2
LOWER MAKEFIELD	5,224	65.0	656	8.2	3,612	44.9	956	11.4
MIDDLETOWN	7,153	41.5	2,357	13.7	2,332	13.5	2,404	13.5
MORRISVILLE	2,414	53.9	133	3.0	1,689	37.7	592	12.3
TULLYTOWN	377	34.3	72	6.5	168	15.3	137	11.3

Source: BCPC Analysis of 1980 U.S. Census Data

3. INCOME

According to the 1980 U.S. Census figures, the median family income for Falls Township was \$21,315.00. This ranks Falls Township as fifth among the fourteen Lower Bucks County municipalities as far as median family income, following Lower Makefield Township, Langhorne Manor Borough, Middletown Township and Lower Southampton Township, respectively. The range for Bucks County is between \$36,476.00 to \$14,382.00.

HOUSING UNITS

According to the 1980 U.S. Census figures, there were 12,450 housing units in Falls Township. The predominant type was single family detached (66.5%), followed by multifamily dwellings with more than 5 units (23.1%), mobile homes (9.0%) and multifamily dwellings with 2-4 units (1.4%). More than three quarters of the units were owner occupied (74.4%) versus rented (25.6%).

**TABLE 2.6
TYPE OF DWELLING UNITS**

SINGLE FAMILY	2-4 DU'S	5+ DU'S	MOBILE HOMES
8,276 (66.5%)	175 (1.4%)	2,880 (23.1%)	1,122 (9.0%)

**TABLE 2.7
OWNERSHIP**

MUNICIPALITY	TOTAL	% OWNED	MEDIAN VALUE
FALLS TOWNSHIP	12,450	79.4	\$44,300
Bristol Township	18,985	79.5	40,500
Bristol Borough	4,298	60.7	32,200
Lower Makefield Twp.	5,534	93.5	86,100
Middletown Township	11,625	73.1	51,900
Morrisville Borough	3,918	61.9	43,600
Tullytown Borough	788	66.5	41,800

The median value of a dwelling unit in Falls Township was \$44,300.00 (in 1980) (Table 2.7). This ranks Falls as third in median value of the neighboring municipalities, with Lower Makefield Township having the highest median value (\$86,100), and Middletown the second highest (\$51,900).

The Bucks County Planning Commission prepared dwelling unit projections for the municipalities within the County. These projections gave a high and low figure for each municipality for the year 1990 and the year 2000. A Cohort method of projecting housing consumption by population projections was used and samples were compared to actual building permit applications. The actual numbers were found to be in the range of the high and low figures, proving a certain degree of validity.

The BCPC figures show growth of dwelling units in Falls Township leveling off. From the 1970 Census count to the 1980 count, the number of dwelling units in Falls Township grew 22%. The BCPC figures show a range of about 7.6% to 12.4% for 1990. The median of this range results in about a 10% growth rate in dwelling units between 1980 and 1990. This rate slows further for the year 2000: 5.9% to 7.1% for a median of 6.5%. There is still a significant number of dwelling units projected: between 950 and 1,550 units between 1980 and 1990 and 200 to 1,000 units between 1990 and the year 2000. These projections would indicate that the number of new dwelling units in Falls Township is stabilizing.

CONCLUSIONS

The residential population of Falls Township appears to be stabilizing. The preliminary U.S. Census population figures show the total Township population decreasing from 1980 to 1990. Dwelling units projections show the construction of new housing units to be levelling off. However, in the year 2000 an additional 2,500 dwelling units may be required. Since most of the vacant land available in the Township is contained within one of the three study areas, this report makes provisions to accommodate these additional units. In addition, other land uses which are required to support these units are also addressed in the "Proposed Land Use Plans".

C. NATURAL FEATURES

TOPOGRAPHY

The Township of Falls lies predominantly within the Coastal Plain, a physiographic province underlain by unconsolidated rock of the cretaceous and quaternary ages. The Coastal Plain is a narrow, low, flat area adjacent to the Delaware River and continues with terraces and flood plains upstream. Along the bottom lands of the Delaware, terraces and islands are common.

Elevations on the Coastal Plain only reach 50 to 60 feet above sea level. Consequently, the southeastern portion of the Township (Study Area 3) is covered by surface waters. The more significant bodies of water include Van Sciver and Warner Lakes and Scotts and Biles Creeks. Numerous other small areas of inundation and creek tributaries exist throughout the Township.

Separating the coastal plain from the Piedmont Uplands is the fall line. The edge is characterized by falls or rapids in the streams that cross it. The northwest corner of the Township, adjacent to Lower Makefield Townships occur within this area and is shown on the USGS map to reach altitudes of 140 feet above sea level. This edge also marks the boundary between unconsolidated rock and unconsolidated piedmont deposits.

GEOLOGY

The underlying geologic formations in the Township are unconsolidated Wisconsin and recent formations. These formations consist of unconsolidated Pleistocene sediments resting atop a bed of unconsolidated pre-Cretaceous deposits. Beneath these two layers lies a basement of consolidated Paleozoic rock.

Paleozoic basement rocks are a complex mixture of crystalline sedimentary and igneous rocks that have little effect on the extent of available groundwater. The largest water bearing strata are the middle and upper layer deposits of unconsolidated rocks of the pre-Cretaceous and Pleistocene age. The pre-Cretaceous deposits dip southeasterly and are channeled by the Delaware River. The highly permeable, coarse-grained sediments of this layer form one of the most productive sources of groundwater in the area. The upper Pleistocene deposits consist of a wide variety of clay, sand, and gravel material that occur on the surface as terrace remnants, valley fill, and a thin layer of floodplain sediment. Consequently, its water bearing characteristics are variable.

Taken together, the upper and middle layer strata of this area form the most extensive aquifer in the lower Delaware River valley. Yields of larger wells have ranged from 10 to 1,050 gallons per minute (gpm) with a 304 gpm average. The highest specific capacities were recorded for wells located near the Delaware River. This is indicative of the importance of infiltrated recharge of the aquifer in order to sustain the yield of the aquifer.

Water from these unconsolidated rocks is generally low in dissolved solids, soft and moderately acidic. High iron content has been discovered in some wells. Except for supplies where this condition exists, unconsolidated deposits can be used for almost any use with a minimum of treatment.

SOILS

The soils associations in the Township were mapped by U.S. Dept. of Agriculture Soil Conservation Service. The soils found within the Study Areas are classified according to general soil associations. Each soil association consists of a distinctive pattern of major and minor soil types. Classification by association is a useful guide for land planning at the municipal and regional level but should not be used for individual site planning. A description of each soil association found in the study area are described below:

ALTON-POPE ASSOCIATION

The topography characterizing this association is nearly level to gently sloping. This association is on the high bottom lands along the Delaware River from Riegelsville to Tullytown. The soils formed into loamy and very gravelly alluvial and outwash sediment derived chiefly from shale, sandstone and limestone.

The main limitations of this association are to droughtiness and flooding. Sites intended for intensive uses need to be thoroughly investigated in relation to the use anticipated.

The soil types that are found to occur in this association are: Alton, Bowmansville, Marsh and Urban Land. Alton soils are a good source of gravel.

URBAN LAND-HOWELL ASSOCIATION

The topography characterizing this association is nearly level to gently sloping. The soils formed are loamy and clayey material of mixed, old coastal plain sediment. Most foundation materials consist of Howell and other soils that have been obscured, smoothed, disturbed, filled in or destroyed by construction of urban facilities. The main limitations in Howell soils and minor soils is the restricted permeability. Sites intended for intensive use need to be thoroughly investigated. The soil types that are found to occur in this association are: Urban Land, Howell, Marsh, Doylestown, Duncannon, Fallsington, Lawrenceville, Woodstown, Alton, Pope and Hatboro.

URBAN LAND-CHESTER ASSOCIATION

The topography characterizing this Association is nearly level to sloping. These soils formed in loamy material weathered chiefly from gneiss and schist. The topography is nearly level to sloping. Most foundation materials consist of Chester and other soils that have been obscured, smoothed, disturbed, filled-in, or destroyed by construction of urban facilities. Urban development precludes the use of urban land for other purposes. The main limitations on Chester soils and the minor soils are slope and stoniness. Sites intended for intensive uses need to be thoroughly investigated.

In addition to the soils in this Association, areas of marsh occur along shorelines subject to ponding or tidal overflow or in depressions where runoff collects. The soil material is variable but consists mostly of loamy to clayey marine and alluvial deposits.

The limits of each Association within the Township are shown on the Township Characteristic Plan. The Alton-Pope Association is confined between Van Sciver Lake and the Delaware River, and includes the lands of USX Corporation (previously U.S. Steel). The majority of soils at the USX Corporation have undergone significant development and disturbance and are more appropriately classified as Urban Land (Ub). The undeveloped areas between the lakes and the USX Corporation retain the Alton-Pope characteristics, with the exception of Biles Island.

Biles Island has been used for deposition of dredged material from the Delaware River. Thus, the soil horizons on this particular tract have been modified by the dredging activities. These horizons generally tend to display a silty, sandy mixture of eroded materials typically found on a river bottom.

Moving westward across Van Sciver Lake and sloping up from the low lying river basin, the Urban Land-Howell and Urban Land, Chester Associations alternately encompass the balance of the Township.

Table 2.8 is the soil types found within the Study Area as mapped by the Bucks County/Philadelphia Soil Survey along with selected construction characteristics. Table 2.9 is the soil slopes, capability units, and suitability for sand and gravel.

**TABLE 2.8
SOIL SERIES AND CONSTRUCTION LIMITATIONS**

SOIL SERIES	DEPTH TO SEASONAL HIGH WATER TABLE (ft.)	DEPTH TO BEDROCK (ft.)	EROSION HAZARD	SEWAGE EFFLUENT DISPOSAL	PIPELINE CONSTRUCTION AND MAINTENANCE
Alton	> 5	4 - 100	Slight	Slight: Hazard of groundwater contamination	Subject to Flooding
Fallsington	0-½	> 5	Slight	Severe: High water table	High water table High corrosion potential
Howell	> 5	> 10	Slight	Severe: Moderately slow permeability	Generally favorable
Marsh	0	--		Severe: High water table; flooding	High water table; flooding
Pope	> 3	> 5	Slight	Slight	Subject to Flooding
Urban	Varies	--		Variable	Too variable to estimate
Woodstown	1.5-3	4 - 12	Slight	Severe: Moderately slow permeability	Season high water table; high corrosion potential

Source: USDA, SCS Soil Survey Manual for Bucks and Philadelphia Counties, July 1975

**TABLE 2.9
SOIL TYPES PRESENT
IN STUDY AREA**

SYMBOL	NAME	SLOPE	CAPABILITY UNIT	SUITABILITY AS SOURCE OF SAND AND GRAVEL
Ub	Urban Land	0	--	--
Uh	Urban Land Howell Complex	0	--	--
PpA	Pope Loam, Terrace	0-3%	I-1	Fair
Mh	Marsh		VIIIw-1	--
Fa	Fallsington Silt Loam; Gravelly Subsoil Variant	0	IIIw-r	Fair
AgA	Alton Gravelly Loam	0-3%	IIIs-1	Fair
AgB	Alton Gravelly Loam	3-8%	IIIs-1	Fair to Good
WoA	Woodstown Silt Loam	0-5%	IIw-2	--
Source: USDA, SCS Soil Survey Manual for Bucks and Philadelphia Counties, July 1975				

With regard to the suitability for agricultural use the capability classification system used by the SCS shows the suitability of soils for most field crops. Urban land and urban land complexes are not used or managed for the production of field crops or pasture. Marsh is restricted largely to wildlife habitat, recreation or aesthetic uses.

The balance of the soil types present are generally capable of various crop applications as indicated by the unit numbers shown (I, II, III) and more specifically outlined by the SCS. Specifically, prime agricultural soils exist around Van Sciver Lake. However, the intense industrial and recreational uses in close proximity make agricultural use of these areas extremely limited and nonviable.

While prime agricultural soils are shown to exist on Biles Island as well, site conditions do not support agricultural activity. This site has been used as a depository of dredge material from the Delaware River and the resulting soil horizons do not meet prime agricultural soils definition.

FLOOD PLAINS

The generally recognized flood plain delineation is the 100 year flood plain as determined by the Federal Insurance Administration (FIA) of the U.S. Department of Housing and Urban Development. This flood plain is determined to be the area required to accommodate the stormwater runoff for a 100 year frequency storm. Certain types of development are restricted in the designated 100 year flood plain by the Falls Township Zoning Ordinance. The Township Characteristics Plan delineates the 100 year flood plain line as taken from the F.I.A. maps.

The primary area of flood plain is along the Delaware River. However, open bodies of water throughout the Township also exhibit flood plain areas as an integral part of the natural stormwater runoff control system. In addition, small water courses cross the Township. The flood plains for these small waterways must be determined on a site specific basis based on topography and soil characteristics.

WETLANDS

Freshwater wetlands include a wide variety of ecological environments that satisfy the following parameters:

1. Fifty percent (50%) or greater of the dominant vegetation must have a Regional Wetlands Indicator Status of Facultative (FAC), Facultative-Wet (FACW) or Obligate (OBL). If a dominance of the vegetation within an association is listed as Obligate, this area is to be classified as wetlands with no further synthesis of data required. If the plant community has less than 50% FAC or wetter plant species, and the hydric soils and wetland hydrology is present, the area is considered to have hydrophytic vegetation.
2. Soils must exhibit hydric characteristics as defined in U.S. Army Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1).
3. The site must exhibit wetland hydrology as defined in the above referenced manual.

Wetlands occur, but are not limited to, areas such as swamps, marshes, and bogs. They are valuable resources due to their ability to serve as natural flood buffers, groundwater recharge areas, pollution filters, as well as providing wildlife habitat.

Wetlands within the Township were identified through the use of the National Wetlands Inventory ("NWI") maps for the Trenton West and Trenton East quadrangles, the USDA Soil Survey for Bucks County and Philadelphia Counties, and review of 1990 aerial photographs. A number of different wetlands types are mapped on the NWI maps of the Township and include areas that have developed due to manmade disturbance related to surface mining. Some wetland areas on the NWI maps no longer possess required characteristics due to filling and construction activities. In general, an increased concentration of wetland areas occur within the lower topographic elevations along the Delaware River and associated flood plain areas.

Although the NWI maps are not believed to be accurate for approximating the extent, location or configuration of wetlands, they can be used as a general guide. The presence of other wetlands areas require an extensive field investigation, which is beyond the scope of this study. This type of study requires a site by site investigation to determine the presence and configuration of wetlands. The Township Characteristics Plan shows the general areas of wetlands as determined from the above noted sources.

The U.S. Corps of Engineers and Pennsylvania Department of Environmental Resources have responsibility for regulating specific activities in wetlands. Encroachments into or alteration of wetlands require these above agencies' approval. Current permit requirements request a comparison of development alternatives against existing wetland locations to help minimize any loss of these resources. Alternatives considered will be evaluated on a case by case basis to establish existing wetlands, the possibilities for avoidance, and requirement of mitigation measures. Site specific studies of the large vacant parcels is important in identifying and protecting these natural features.

D. COMMUNITY FACILITIES

The Community Facilities element addresses those aspects and land uses supporting, protecting or enhancing the community environment. Examples of these include schools, hospitals, fire stations, police stations, parks, etc. These elements are included in the 1975 Falls Township Comprehensive Plan with recommendations regarding the expansion of these facilities as deemed appropriate.

In this update, the Community Facilities are analyzed as they impact the land use recommendations contained in the five Study Areas.

POLICE

There is a single police station serving Falls Township. Currently, this police facility is located within the Township Building in Fallsington.

The Township owns property on Tyburn Road at Route 13 that has been considered for a new municipal complex. The Township Supervisors have also recently made a motion to purchase a new, existing office building at Olds Boulevard and Lincoln Highway. This building is intended to house both the Township administrative offices and the Police station. This new site will provide better access to major roads.

FIRE

There are three fire companies in Falls Township, the Falls Township, Levittown and Fairless Hills Companies. Along with the Levittown - Fairless Hills rescue squad substation, these companies handle the first response duties for the Township. To further provide emergency response at all times, mutual aid agreement exist between the Falls companies and those from surrounding communities.

HOSPITALS

Delaware Valley Medical Center is located in the northwestern corner of the Township at the intersection of Lincoln Highway and Oxford Valley Road. The Delaware Valley Medical Center is the only hospital within Falls Township. There are at least three other hospitals nearby that also provide acute care to Falls Township residents; they are the Lower Bucks Hospital in Bristol, St. Mary's Hospital in Middletown Township, and the Mercer Medical Center in Trenton.

PARKS AND RECREATION

Falls Township maintains twelve parks throughout the Township. These parks range in size from less than a quarter of an acre to 37 acres. They also range in development phases. Each park provides a variety of uses including play equipment, ballfields, basketball courts, tennis courts, picnic areas and walking trails. A historical building, Three Arches, owned and maintained by the Township is also included in the Park System.

Active recreational facilities of the parks are supplemented by neighborhood school facilities including play equipment and ballfields.

Other park and recreation facilities in the Township include lake Caroline (County Park), Pennsbury Manor State Park and a County Golf Course.

The Township has not developed a plan for future acquisition, development or use of its park system. A plan to direct the Township Park system should be undertaken to ensure additional recreational facilities are developed in areas that best serve the Township residents.

E. TRANSPORTATION FACILITIES

There are a variety of transportation networks available to residents of Falls Township. These include highways for personal car use, bus, and commuter trains.

HIGHWAYS

There are numerous arterial and secondary highways servicing the Lower Bucks County region. These include Interstate 95, the U.S. Route 1 bypass, U.S. Route 13, and Tyburn Road, as limited access expressways.

- Interstate 95 is a primary north/south transportation link along the East Coast. In Falls Township, there are interchanges at Old Lincoln Highway (Business Route 1) and at the U.S. Route 1 Bypass (L.R. 281).
- The Route 1 Bypass (a four lane limited access highway) extends from the PA Turnpike interchange in Bensalem Township north to New Jersey. Before I-95 construction, Route 1 was the primary north/south corridor along the East Coast. While the highway still extends the entire coast, it now serves the regional transportation needs and not interstate transportation requirements.
- Route 13 extends along the East Coast although it was never as important as Route 1. In Falls Township, Route 13 is a four lane limited access highway with interchanges at Mill Creek Road, Penn Valley Road, Tyburn Road, Newbold Road and at the Route 1 Bypass.
- Tyburn Road is a limited access highway for approximately half of its length through Falls Township (Pennsylvania Avenue and extending to the Route 13 Expressway). Tyburn Road serves as primary means of access to the solid waste disposal facilities in the southern part of Falls Township.

There are numerous secondary arterials such as Old Lincoln Highway (Business Route 1), Trenton Road, and Oxford Valley Road. These roads connect the major arterials with the traffic generators and the local roads. Examples of the traffic generators in and around Falls Township include the Oxford Valley Mall, Sesame Place, commercial development along Old Lincoln Highway and the commercial areas in Fairless Hills.

BUS SERVICE

There are two major bus routes in the western portion of Falls Township serving the Oxford Valley Mall. One travels in an east-west direction from Morrisville to Oxford Valley Road via West Trenton Avenue, Trenton Road and Oxford Valley-Tullytown Road. The second bus route travels from Levittown in the southeastern part of the Township to Oxford Valley Road via the Levittown Parkway, New Falls Road, Hood Boulevard and Oxford Valley-Tullytown Road. SEPTA does not serve the eastern portion of the Township, and no additional routes are planned.

COMMUTER RAIL SERVICE

Two SEPTA commuter Regional Rail lines serve the Lower Bucks County region. (R-3 West Trenton Line and the R-7 Trenton Line). While the Trenton Lines, pass through Falls Township, there are no station stops within the Township. The nearest stations to Falls Township for each of the lines are:

R-3 West Trenton - Woodbourne Road (Middletown Township)
Yardley (Yardley Borough)

R-7 Trenton - Levittown (Tullytown Borough)

There have been proposals by SEPTA to build a new station along the CONRAIL tracks at Oxford Valley Road, however, this is in the early planning stages.

BOROUGH OF MORRISVILLE
PLANNING COMMISSION
35 UNION STREET • MORRISVILLE, PA 19067
(215) 295-8181 Fax: (215) 786-5760 or 295-8451

May 24, 2004

Falls Township
Lincoln Highway

RE: Falls Township Comprehensive Plan Update 2004

MAY 25 2004

Dear Wayne Bergman, Township Manager:

The Morrisville Planning Commission reviewed the Falls Township Comprehensive Plan update 2004. We would suggest a better definition of the Morrisville boundaries and the Land use in the southern section of Morrisville abutting Falls Township.

MORRISVILLE BOROUGH

Morrisville Borough borders Falls Township on the northeasterly edge of the Township from the Delaware River west on Post Road, north to Rte 1 approx south of Bridge Street then west to Snipes Farm, north to Trenton Ave. then East along a jagged West Trenton Ave boundary line. The Borough does not have a current Comprehensive Plan. Accordingly to George Mount, Borough Manager, the previous Comprehensive Plan was prepared in 1982. Morrisville Borough is also undertaking the revision of its Comprehensive Plan, and the MPC will be making this recommendation to the borough council also.

South of U. S. Rte 1 Borough lands are largely zoned Residential, which is not consistent with uses and zoning in Falls Township. The one area disparate land uses occurs along both sides of East & West Post road where in the Borough the zoning calls for single family residential, whereas in Falls township lands south of Post Road are proposed for industrial land uses. On the east side of Pennsylvania Avenue, a small single-family residential neighborhood in Falls Township is situated adjacent to the single-family residential community in Morrisville Borough.

One thing we noticed, your Plans did not mention the Delaware Canal, both Falls Township and Morrisville Borough are fortunate to have the Delaware Canal-Delaware canal state park- run through both of our municipalities. Realizing that tourism is the fastest growing industry in Bucks County, the Township may want to explore in more depth this historical and natural resource both for preservation and economic development. The Urban Appalachian Trail and the Delaware and Lehigh National Heritage Trail Corridor follow the towpath of this Canal. Plans for use and access along the Canal may offer another opportunity for cooperative discussions on planning.

Respectfully Submitted,



Don M. D'Amico
Chairperson, MPC

cc: Morrisville Borough Council/Mayor
Morrisville Borough Planning Commission

**Excerpt from
Delaware River South Watershed Act 167 Stormwater Management Plan**

**SECTION X
EPA's Phase II NPDES Permit Program**

Introduction

The U.S. Environmental Protection Agency (EPA) requires, under the Phase II Regulation (adopted on October 28, 1999) of the National Pollutant Discharge Elimination System (NPDES), that owners and operators of small, urbanized municipal separate storm sewer systems (MS4s) reduce the pollutant loading from regulated systems to the "maximum extent practicable" in order to protect the Waters of the United States. EPA has required that this be accomplished through a permitting program established by the states. The affected municipalities are required to obtain a permit from the state by March 10, 2003. Municipalities required to implement the MS4 program must address the six minimum control measures listed below:

- Public Education and Outreach
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Postconstruction Stormwater Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

At a minimum, municipal entities regulated under MS4 *must*:

- Specify best management practices (BMPs) and implement them to the "maximum extent practicable;"
- Identify measurable goals for control measures;
- Develop implementation schedule of activities or frequency of activities;
- Define the entity responsible for implementation.

The affected municipalities must, if they already do not have one in place, develop a stormwater management program. If a municipality has an established stormwater management program and is subject to the provisions of the Phase II Rule, provisions of the rule must be implemented to satisfy the requirements.

BMPs for Six Minimum Control Measures

Best management practices (BMPs) for stormwater management are: recognized practices; schedules of activities; prohibited practices; maintenance procedures; and use of pollution control devices and other means to prevent or reduce the amount of pollutant loading being discharged in stormwater runoff, into water bodies of the U.S. The stormwater management program must specify BMPs for the following six minimum control measures:

Minimum Control Measure #1—Public Education and Outreach on Stormwater Impacts

- Municipality *must* implement a public education program, including distributing educational materials that:
 - describe impacts of stormwater
 - describe steps to reduce stormwater pollution
- Municipality *should* inform households and individuals about steps they can take such as:
 - proper septic system maintenance
 - limiting use and runoff of garden chemicals
 - local stream restoration
 - storm drain marking
 - stream bank protection
- Municipality *should* direct information to commercial, industrial, and institutional entities likely to cause stormwater impacts.
Examples include:
 - restaurants (potential grease clogging/blocking of storm drains)
 - auto service facilities
- Municipalities *should* address viewpoints and concerns of:
 - minorities
 - disadvantaged
 - development/construction
 - business
 - education
 - government entities
 - industry

Minimum Control Measure #2—Public Involvement/Participation

- Municipality *must* comply with state and local public notice requirements (adoption of stormwater management program, policies, ordinances, etc.)
- Municipality *should* involve the public in developing, implementing and reviewing stormwater management program:
 - Reach out to and engage all economic and ethnic groups;
 - Consider establishing a citizen group to participate in decision-making;
 - Work with volunteers.

Minimum Control Measure #3—Illicit Discharge Detection and Elimination

- Municipality *must* develop stormwater system maps:
 - Show location of major pipelines, outfalls, and topography;
 - Show areas of concentrated activities likely to be a source of stormwater pollutants.

- Municipality *must* effectively prohibit illicit discharges into MS4 system:
 - Use ordinances, orders, etc.;
 - Implement enforcement procedures/actions.
- Municipality *must* implement a plan to detect illicit discharges and illegal dumping.
- Municipality *must* inform public employees, businesses, and citizens of hazards arising from illegal discharges and improper disposal of waste.

Minimum Control Measure #4—Construction Site Stormwater Runoff Control

- Municipality *must* develop, implement, and enforce a program to reduce nonpoint stormwater runoff from construction activities to regulated MS4s:
 - Control construction sites greater than or equal to one acre;
 - Use an ordinance that controls erosion and sedimentation;
 - Control construction site waste materials (discarded building material, concrete washout, sanitary waste).
- Municipality's program *must* include:
 - requirement for construction site owners or operators to implement BMPs
 - preconstruction review of site plans
 - procedures to receive and consider public input
 - regular inspections during construction
 - penalties to ensure compliance

Minimum Control Measure #5—Postconstruction Stormwater Management in New Development and Redevelopment

To maintain predevelopment runoff conditions:

- Municipality *must* develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects:
 - land disturbance sites greater than or equal to one acre and discharge to regulated MS4
 - project sites that discharge to MS4
- Municipality's program *must*:
 - Include site-appropriate, cost-effective structural and nonstructural BMPs;
 - Ensure long-term ownership and maintenance of BMP connected to regulated MS4s;
 - Ensure that controls are in place that prevent or minimize water quality impacts.
- Municipality's program *should* include structural and nonstructural BMPs.
 - locally-based watershed planning
 - preventative measures to prevent or minimize water quality impacts

EPA *recommends* (for Minimum Control Measure #5):

- BMPs that minimize water quality impacts;
- BMPs that maintain predevelopment runoff conditions;
- Nonstructural BMPs that emphasize management and source controls such as:
 - policies and ordinances that protect natural resources and prevent runoff
 - limiting growth to identified areas
 - protecting sensitive areas such as wetlands
 - minimizing the amount of impervious surfaces
 - maintaining open space
 - minimizing disturbance of soils and vegetation
- Structural BMPs that may include:
 - storage facilities (retention/detention ponds)
 - filtration facilities (grassed swales, sand filters, filter strips)
 - infiltration facilities (recharge basins, porous pavement)

Minimum Control Measure #6—Pollution Prevention/Good Housekeeping for Municipal Operations

A municipality must develop and implement a cost-effective infrastructure, operations, and maintenance (O&M) program to prevent or reduce pollutant runoff from municipal operations.

- Municipality *must* provide employee training:
 - park and open space maintenance
 - fleet maintenance
 - planning
 - building management
 - stormwater system maintenance

EPA *recommends* (for minimum Control Measure #6) that, at a minimum, Municipality *consider* the following as components of the Municipality's program:

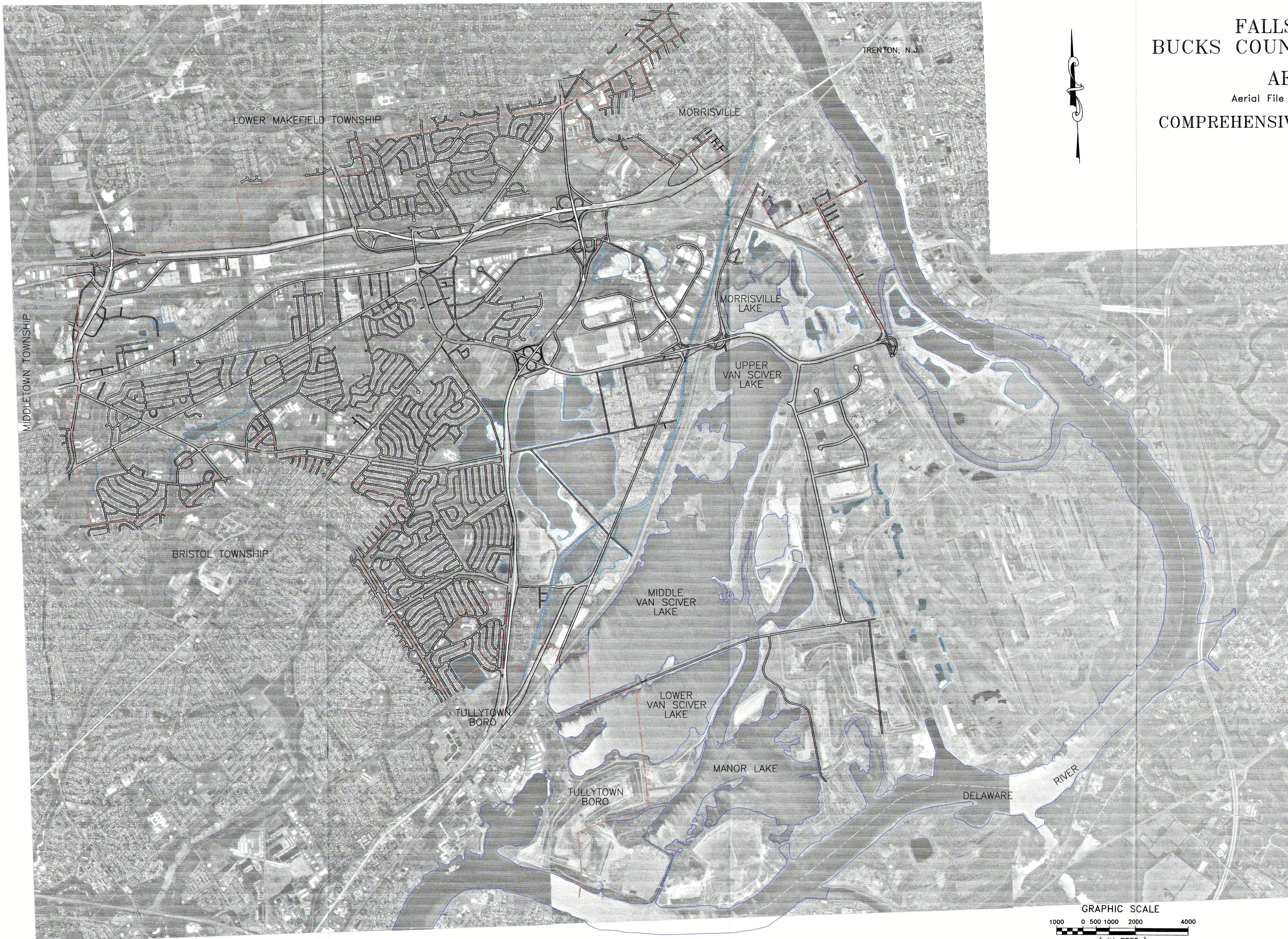
- maintenance activity schedules and inspections to reduce floatable and other pollutants
- controls for reducing pollutants from streets, parking lots, yards, and solid waste operations
- proper disposal of waste removed from storm drains
- assessment of water quality impact of new flood control projects
- maximization of current activities before adding new ones

FALLS TOWNSHIP
BUCKS COUNTY, PENNSYLVANIA

AERIAL MAP

Aerial File Dates: 2001, 2002, 2003

COMPREHENSIVE PLAN 2004 UPDATE



LEGEND

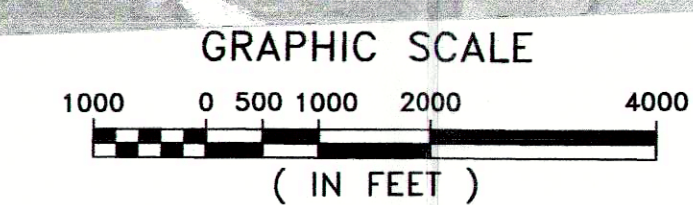
- Row
- Parcel
- - - Township Boundary
- - - State Boundary

AERIAL MAP

Comprehensive Plan 2004 Update

Prepared For:
Falls Township
188 Lincoln Highway
Fairless Hills, PA 19030

Prepared By:
E. Van Rieker, AICP
215 Old Church Road
North Wales, PA 19454
April 2004



FALLS TOWNSHIP BUCKS COUNTY, PENNSYLVANIA

OPEN SPACE, EXISTING INSTITUTIONAL & HISTORIC RESOURCES

COMPREHENSIVE PLAN 2004 UPDATE

- LEGEND**
- Row
 - Parcel
 - - - Township Boundary
 - - - State Boundary
 - Water
 - Institutional
 - Existing Open Space

1999 Open Space Plan Recommendations
(that have not since been acquired)

- Highest Priority
- 1 Sadowski
- 2 Guzikowski Farm
- High Priority
- 3 Snipes West
- 4 Rt. 13 & Lower Morrisville Roads
- Moderate Priority
- 5 Rt. 13—East, West & Interchange—Rock Run Corridor
- 6 Snipes East—Snipes Nursery
- 7 Fallsington
- 8 Morrisville South Riverfront
- 9 Delaware River Inlet (18 acres)

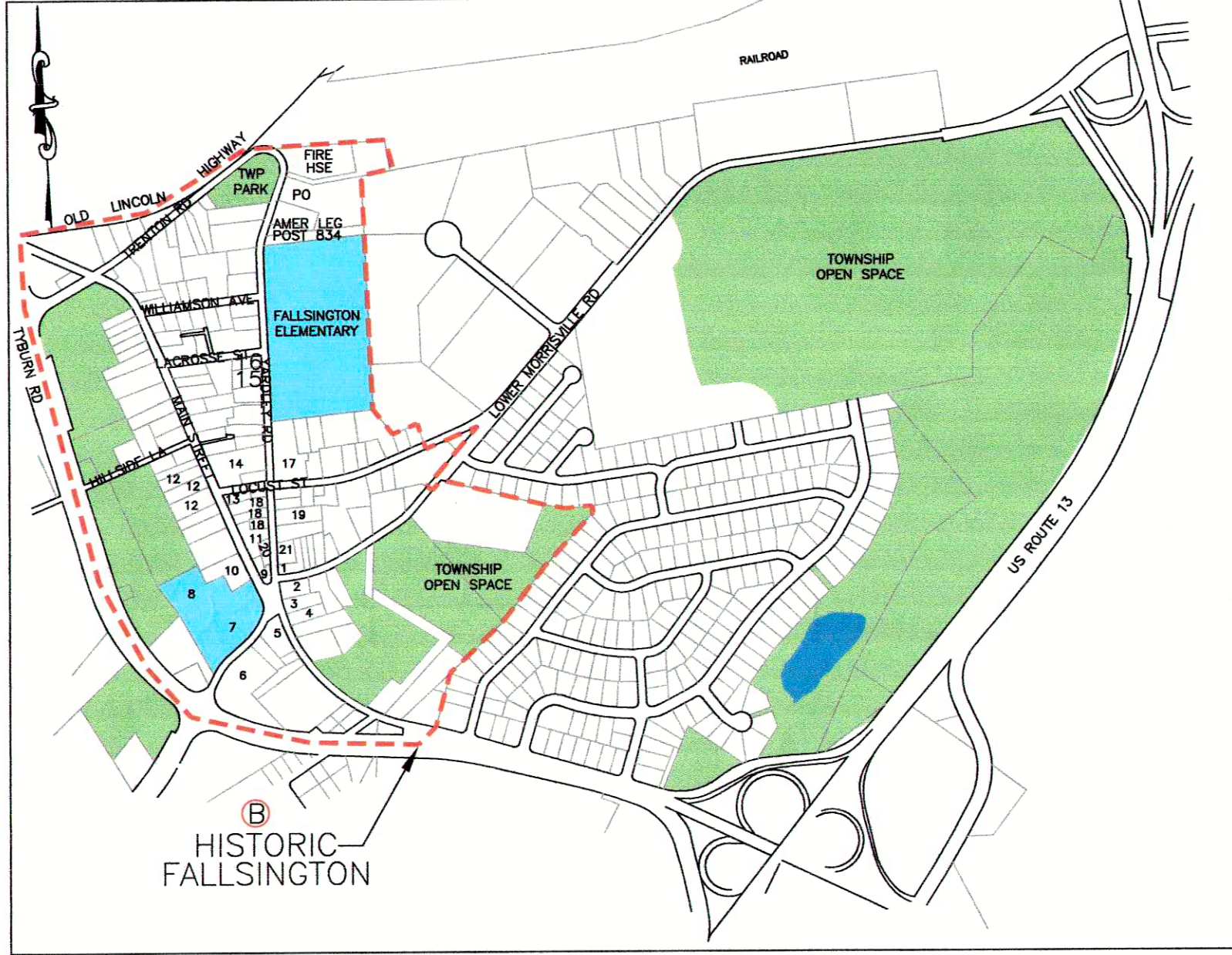
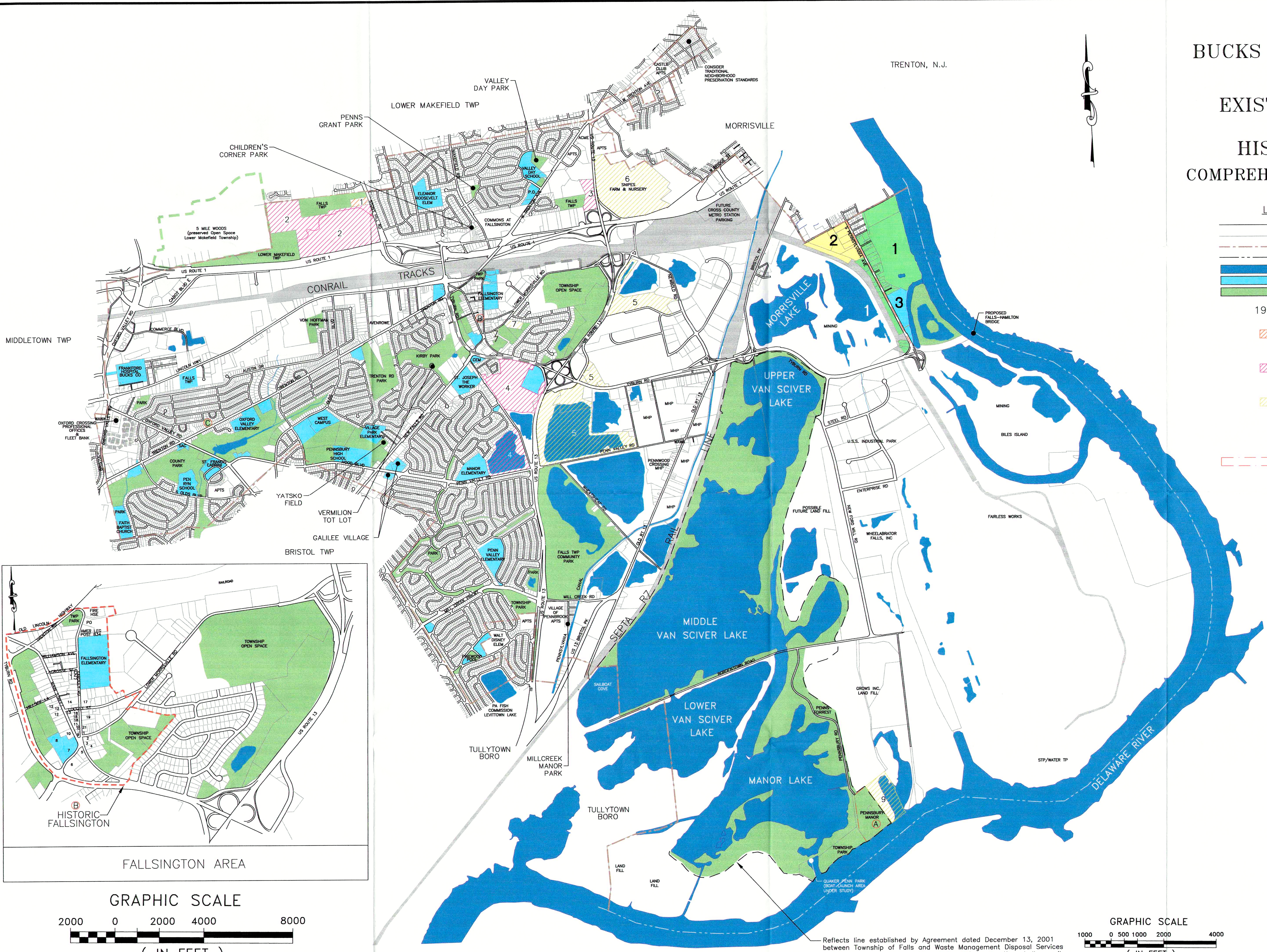
Historic Sites

- William Penn Country Residence (Circa 1683)
- Historic Fallsington — See Area Inset Detail
Taken from the walking tour by Historic Fallsington (5/6/03)
- 1 Gillingham Store c. 1917
Information Center
- 2 Burges-Lippincott House c. 1784
- 3 Pleasants House c. 1788
- 4 Hough House c. 1768
- 5 Gambrel Roof House c. 1728
- 6 Schoolmaster's House c. 1758
- 7 William Penn Center c. 1789
- 8 Falls Monthly Meeting of Friends c. 1841
- 9 Stagecoach Tavern c. 1798
- 10 11 Main Street c. 1840
- 11 16 Main Street c. 1770
- 12 45, 51, 57 Main Street c. 1850
- 13 46 Main Street c. 1933
- 14 All Saints Episcopal Church c. 1868
- 15 Fallsington Library c. 1879
- 16 Fallsington United Methodist Church c. 1866
- 17 Manor House c. 1700
- 18 Three Federal Houses c. 1829
- 19 Moon-Williamson Log House c. 1750
- 20 11 Yardley Ave. c. 1784
- 21 10 Yardley Ave. c. 1790
- Three Arches

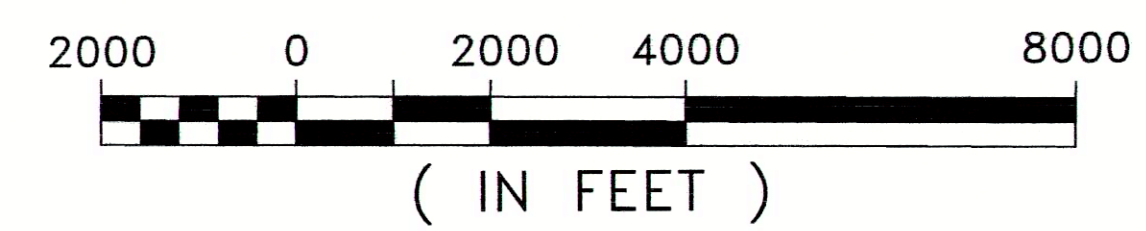
OPEN SPACE,
EXISTING INSTITUTIONAL &
HISTORIC RESOURCES PLAN
Comprehensive Plan 2004 Update

Prepared For:
Falls Township
188 Lincoln Highway
Fairless Hills, PA 19030

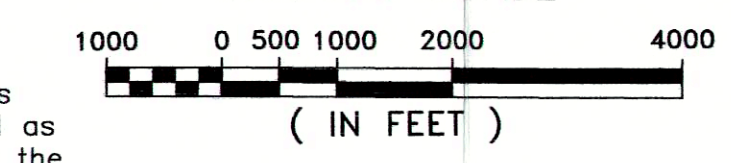
Prepared By:
E. Van Rieker, AICP
215 Old Church Road
North Wales, PA 19454
April 2004



GRAPHIC SCALE



GRAPHIC SCALE

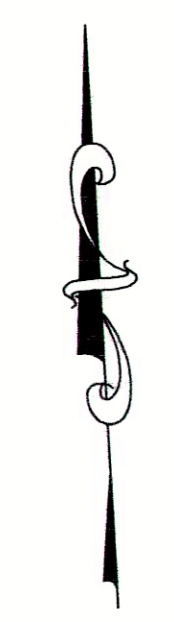


Reflects line established by Agreement dated December 13, 2001 between Township of Falls and Waste Management Disposal Services of Pennsylvania, Inc. to assure that passive recreation shall prevail as the end use for not less than 2,000 acres which are substantially the lands and waterways of the Penn Warner Club.

FALLS TOWNSHIP BUCKS COUNTY, PENNSYLVANIA

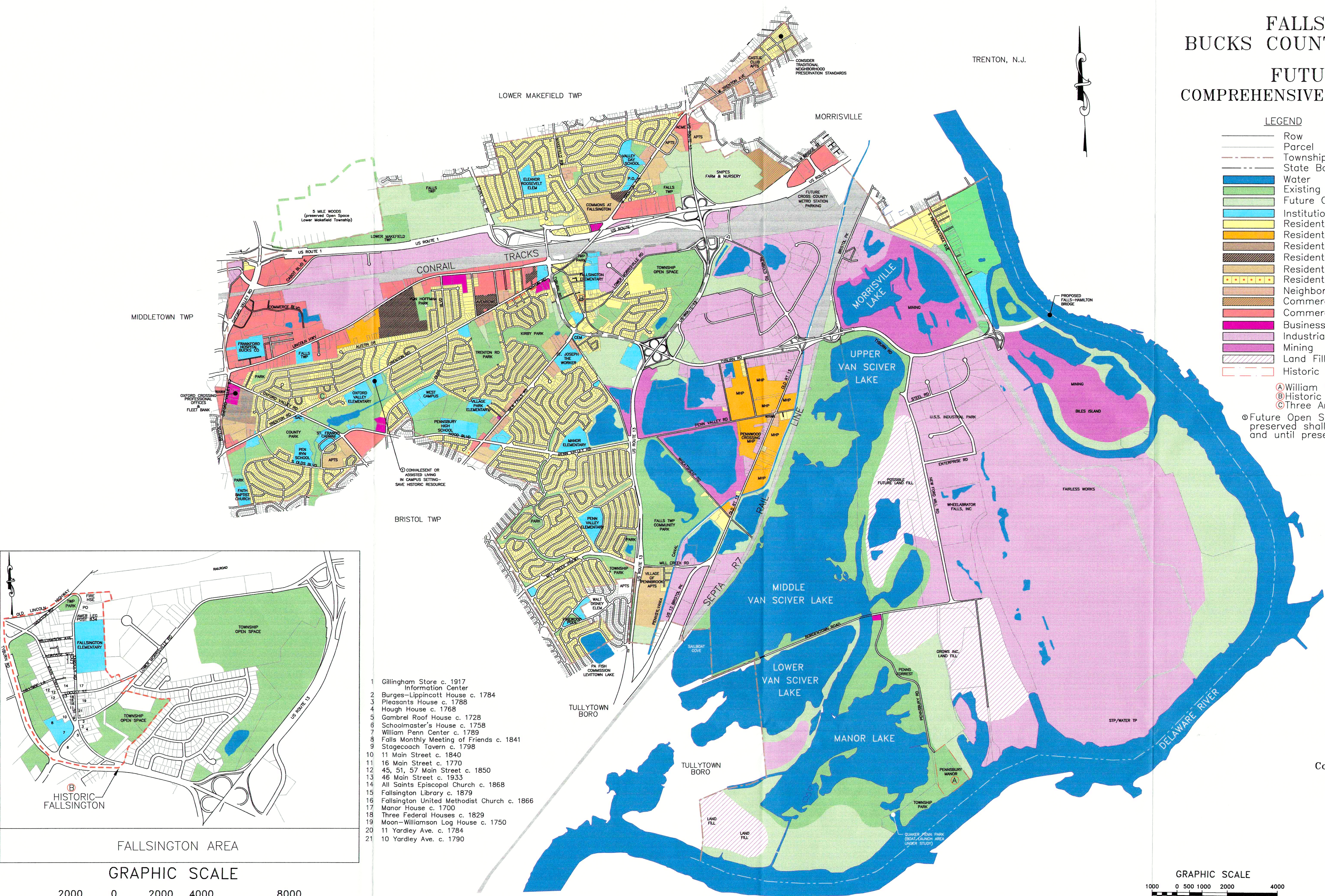
FUTURE LAND USE COMPREHENSIVE PLAN 2004 UPDATE

TRENTON, N.J.



- LEGEND**
- Row
 - Parcel
 - - - Township Boundary
 - - - State Boundary
 - Water
 - Existing Open Space – Public and Private
 - Future Open Space[Ⓞ]
 - Institutional – Public and Private
 - Residential – Single Family Detached
 - Residential – Mobile Home Parks (MHP)
 - Residential – Attached (Townhouses and Twins)
 - Residential – Attached (Age Qualified 55+)
 - Residential – Multi Family (APTS = Apartments)
 - Residential – Office
 - Neighborhood Commercial
 - Commercial Recreation
 - Commerce – Retail and Shopping Center
 - Business and Professional Office
 - Industrial
 - Mining
 - Land Fill
 - Historic Sites

- Ⓐ William Penn Country Residence (Circa 1683)
- Ⓑ Historic Fallsington – See Area Inset Detail
- Ⓒ Three Arches
- Ⓞ Future Open Space areas not acquired or preserved shall be utilized for existing zoning, unless and until preserved.



- 1 Gillingham Store c. 1917
- 2 Information Center
- 3 Burgess-Lippincott House c. 1784
- 4 Pleasants House c. 1788
- 5 Hough House c. 1768
- 6 Gambrel Roof House c. 1728
- 7 Schoolmaster's House c. 1758
- 8 William Penn Center c. 1789
- 9 Falls Monthly Meeting of Friends c. 1841
- 10 Stagecoach Tavern c. 1798
- 11 Main Street c. 1840
- 12 16 Main Street c. 1770
- 13 45, 51, 57 Main Street c. 1850
- 14 46 Main Street c. 1933
- 15 All Saints Episcopal Church c. 1868
- 16 Fallsington Library c. 1879
- 17 Fallsington United Methodist Church c. 1866
- 18 Manor House c. 1700
- 19 Three Federal Houses c. 1829
- 20 Moon-Williamson Log House c. 1750
- 21 11 Yardley Ave. c. 1784
- 22 10 Yardley Ave. c. 1790

FUTURE LAND USE
Comprehensive Plan 2004 Update

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