

# LAND USE ASSUMPTIONS REPORT

Prepared for

**FORKS TOWNSHIP**

Northampton County, Pennsylvania



March 2022



**GILMORE & ASSOCIATES, INC.**  
ENGINEERING & CONSULTING SERVICES

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## Section 1. Introduction

Act of 1968, P.L.805, No. 247, as reenacted and amended, Handbooks and Guides for Local Government Officials, Twenty-Third Edition dated January 2017 (Pennsylvania Municipalities Planning Code (MPC) regulates the implementation of traffic impact fees under the Municipal Capital Improvement Article V-A as defined in Sections 501-A to 508-A. Traffic Impact Fees are applied to development projects based on the amount of traffic generated by the proposed development during the afternoon peak period. These fees generate revenue for municipalities to fund projects to address existing infrastructure deficiencies and accommodate future projected traffic volumes necessitated by and attributable to new development within the Transportation Service Areas. The Land Use Assumptions Report component of the Township's Act 209 Update describes the existing land uses within the designated traffic service area(s), projects future changes in land uses, identifies development applications and potential for residential and non-residential development, and analyzes population growth rates based on County records that may affect the level of traffic within the municipality and its service areas. In addition, a Roadway Sufficiency Analysis and a Transportation Capital Improvements Plan must be prepared prior to enacting a traffic impact fee. Upon the completion of the Transportation Capital Improvements Plan and prior to its adoption by the governing body of the municipality and the enactment of a municipal impact fee ordinance, the advisory committee shall hold at least one public hearing for consideration of the plan by residents and other stakeholders.

### 1.1 Description of Transportation Service Areas

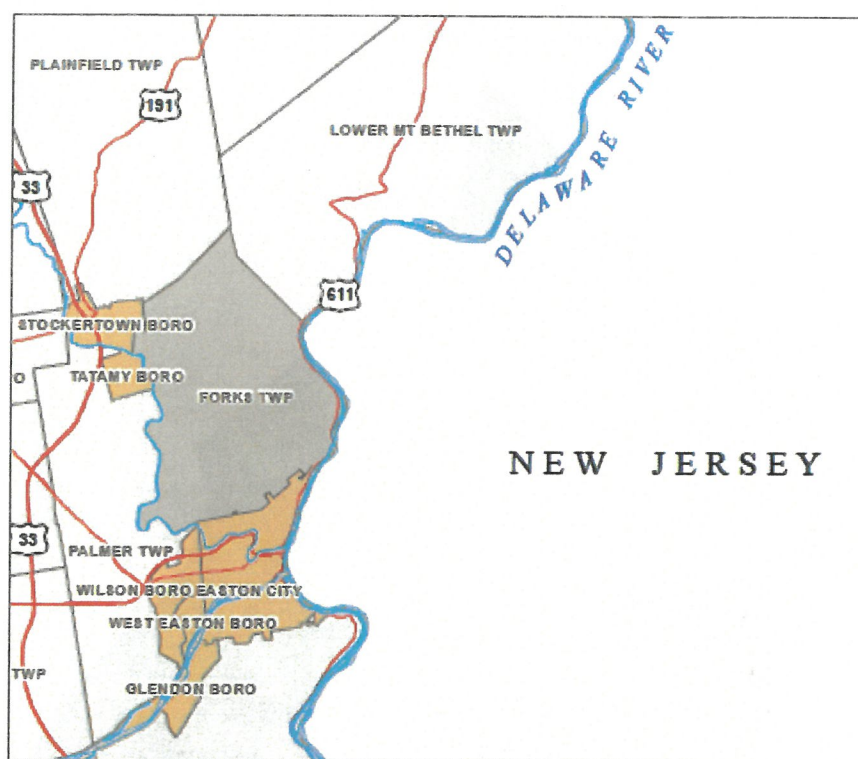
Forks Township is located in the center of Northampton County along the Delaware River. The Township is within the greater Lehigh Valley region (see Figure 1: Regional Location). This region is the third most populous area in Pennsylvania and in 2019 the Lehigh Valley was ranked one of the top regions for development in the Northeast by Site Selection magazine.<sup>1</sup>

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<sup>1</sup> Site Selection Magazine. "2019 Mac Conway Awards." <https://siteselection.com/issues/2019/may/2019-mac-conway-awards.cfm>



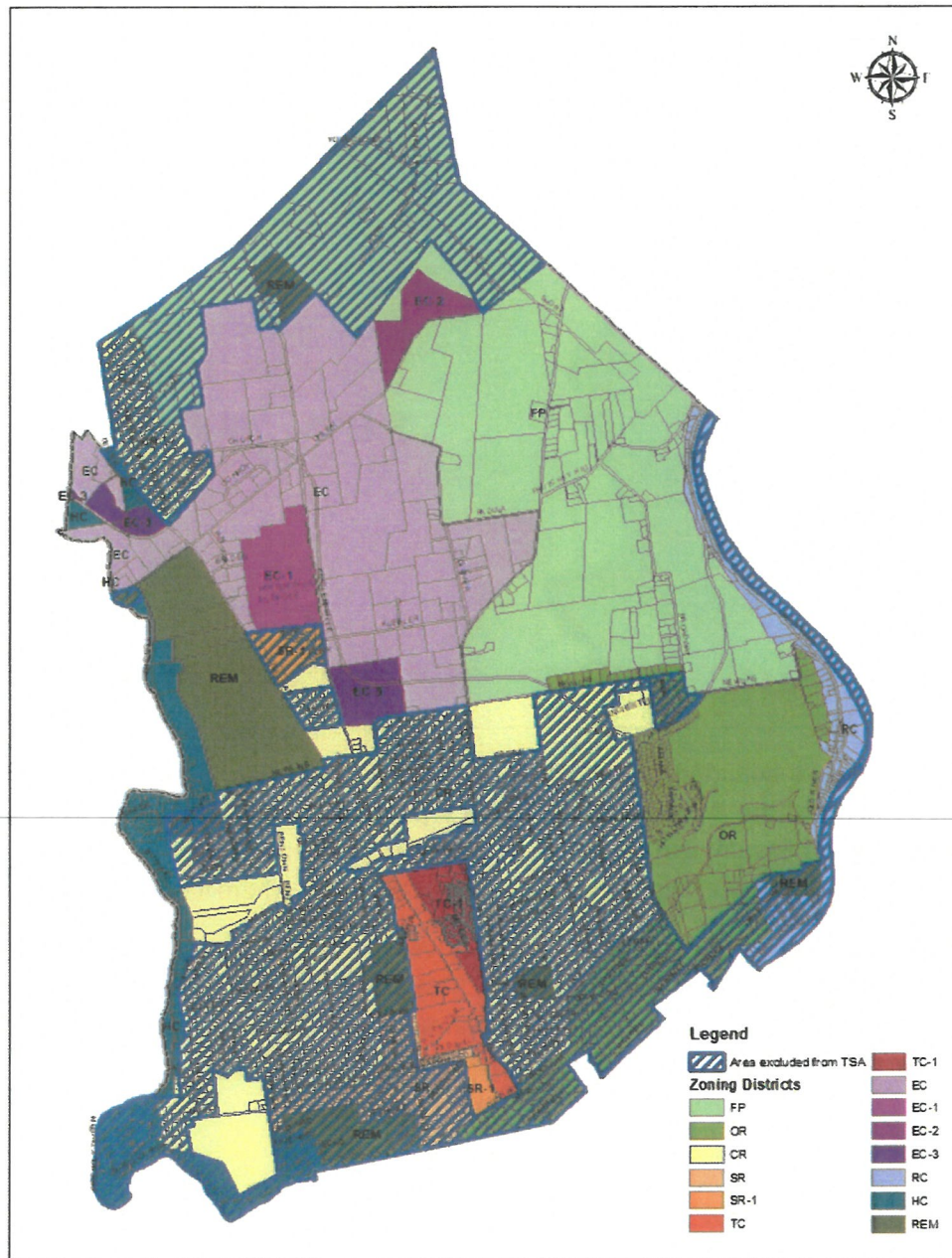
**Figure 1: Regional Location**



The Township of Forks is bounded on the north by Plainfield Township; on the northeast and east by Lower Mount Bethel, and the Delaware River, which separates it from the State of New Jersey; on the south by the Borough of Easton; and on the south and west by Palmer Township. The Township's name was derived from its location near the "forks" of the Delaware River, where it is joined by the Lehigh River.

Forks Township consists of 7,853 acres (less than 13 square miles). The Transportation Service Area (TSA) consists of approximately 7 square miles making up 58% of the Township's total 12.28 square miles. In accordance with Act 209 requirements, each service area is to be less than or equal to 7.0 square miles. Figure 2: Existing Transportation Service Area shows the extent of the TSA.

**Figure 2: Existing Transportation Service Area**



The transportation network for this service area includes the following intersections:

- Uhler Road/Bushkill Road
- Uhler Road/Sullivan Trail
- Uhler Road/Kesslersville Road
- Uhler Road/East Braden Boulevard
- Kesslersville Road/Church Road
- Kesslersville Road/Kuebler Road
- Padula Road/Richmond Road
- Glover Road/Richmond Road
- Richmond Road/ Newlins Road
- Zucksville Road/Bushkill Road
- Sullivan Trail/Newlins Road
- Sullivan Trail/Meco Road

- Sullivan Trail/Zucksville
- Sullivan Trail/Park Plaza Shopping Center
- Sullivan Trail/Town Center Boulevard
- Sullivan Trail/Old Mill Road
- Town Center Blvd/Old Mill Road
- Frost Hollow /Old River Road
- Newlins Rd/Old River Road
- Broadway Road and Newlins Road
- Bushkill Dr/Kessler'sville Rd
- Richmond Road/Paxinosa Road
- Paxinosa Road/ Knox Avenue
- Bushkill /Newlins
- Wagon Wheel /Zucksville
- Sullivan/Church
- Sullivan/Kessler'sville
- Bushkill/Arndt Rd

## 1.2 Population

In 2019, the population of Forks Township was estimated at 15,470 individuals, an estimated 5% increase from their total population in 2010. This was one of the larger growths in population compared to the County and the surrounding municipalities, which experienced growth rates around 0-3%. Exceptions to this trend include Lower Mount Bethel Township and Tatamy Borough, which both experienced estimated decreases in population between 2010 and 2019, and Stockertown Borough, which saw an estimated growth of 8% in the same time range.

**Table 1. Regional Population Growth, 2010 to 2019**

	2010	2019 Estimates	# Change 2010-2019	% Change 2010-2019
<b>Northampton County</b>	297,735	302,809	5,074	1.7%
<b>Forks Township</b>	14,721	15,470	749	5.1%
<b>Easton City</b>	26,800	27,122	322	1.2%
<b>Lower Mount Bethel Twp.</b>	3,101	3,071	-30	-1.0%
<b>Palmer Township</b>	20,691	21,345	654	3.2%
<b>Plainfield Township</b>	6,138	6,194	56	0.9%
<b>Stockertown Borough</b>	927	999	72	7.8%
<b>Tatamy Borough</b>	1,203	1078	-125	-10.4%

*Source: U.S. Census Bureau 2000 Decennial Census and 2010 and 2019 ACS 5-Year Estimates Data Profiles*

Comparatively, the growth rate of Forks Township has slowed when viewed side by side with past growth rates of 42% between 1990 and 2000 and 75% from 2000 to 2010. However, these trends are consistent with those experienced throughout the County, and the Lehigh Valley Planning Commission anticipates Forks and its surrounding communities will see the highest future growth rates in Northampton County<sup>2</sup>.

<sup>2</sup> Lehigh Valley Planning Commission. *Comprehensive Plan: The Lehigh Valley...2030*. April 28, 2005, updated June 2010.



**Table 2. Historic Population – Forks Township**

Census Year	Population	% Change
1960	3,249	-
1970	3,930	21.0%
1980	4,612	17.4%
1990	5,923	28.4%
2000	8,419	42.1%
2010	14,721	74.9%

*Source: U.S. Census Bureau Decennial Census*

The Lehigh Valley Planning Commission (LVPC) prepared Population Projections in 2017 for the municipalities in the Lehigh Valley based on 10-year increments including 2020, 2030, and 2040. Over these three decades, the Lehigh Valley is projected to grow by 165,955 people, a 25.6% increase. Over 45% of this growth is anticipated in Northampton County with an average growth of 8.4% per decade.

By the year 2040, Forks Township's population is projected to reach 20,069, a 28.8% growth from the 2020 estimate and a 30.9% increase from the 2018 estimate. This trend is in line with the growth anticipated within the County of 61,387 additional residents between 2020 and 2040, a 19.7% growth and a 23.5% increase from the 2018 estimate. The surrounding municipalities are predicted to increase between 16-45%, with the City of Easton seeing the lowest growth rate and Stockertown Borough seeing the highest. According to the LVPC, the City of Bethlehem, Bethlehem Township, **Forks Township**, the City of Easton, and Palmer Township are the top municipalities projected to increase the most within Northampton County over the next 20 years.<sup>3</sup>

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<sup>3</sup> Lehigh Valley Planning Commission. *The People: Population Projections and Employment Projections*. 2017  
Forks Township, Northampton County  
Land Use Assumptions Report

**Table 3. Population Forecast, 2020 to 2040**

	2020	2030	2040	# Change 2020-2040	% Change 2020-2040
<b>Northampton County</b>	311,406	347,494	372,793	61,387	19.7%
<b>Forks Township</b>	15,576	18,164	20,069	4,493	28.8%
<b>Easton City</b>	27,443	29,938	31,962	4,519	16.5%
<b>Lower Mount Bethel Twp.</b>	3,421	4,263	4,901	1,480	43.3%
<b>Palmer Township</b>	21,448	23,555	25,227	3,779	17.6%
<b>Plainfield Township</b>	6,751	8,301	9,024	2,273	33.7%
<b>Stockertown Borough</b>	1,019	1,273	1,479	460	45.1%
<b>Tatamy Borough</b>	1,290	1,529	1,725	435	33.7%

Source: Lehigh Valley Planning Commission, Population Projections, 2017

### 1.3 Land Use

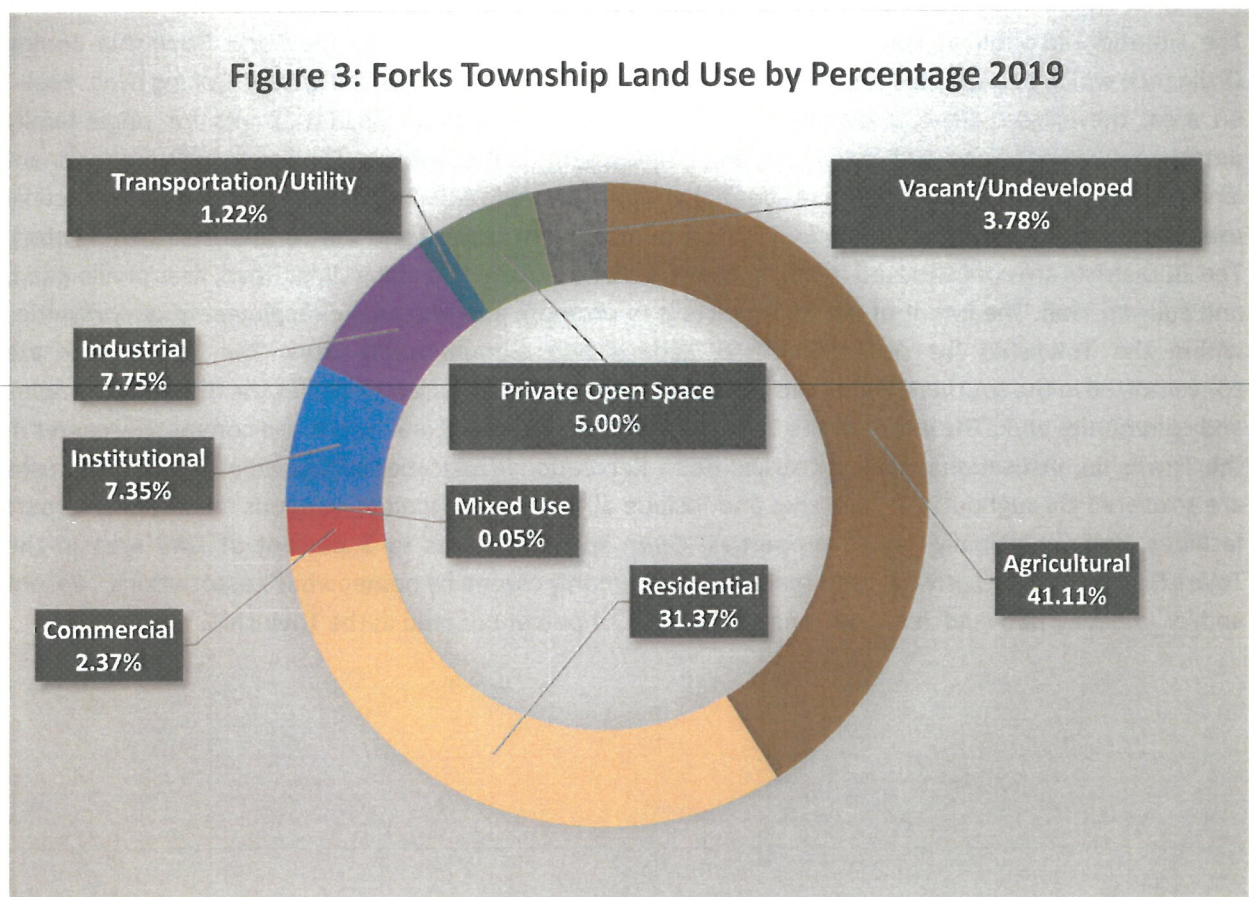
The situation/location of land uses within Forks Township is guided by the Forks Township Zoning Ordinance which has adopted fourteen primary zoning districts, as shown in *Figure 4: Zoning Map*. Based on area, the largest districts are the Country Residential (minimum 15,000 SF lots for single-family detached dwelling), Farmland Protection, and Employment Center districts. The Township's predominant land use is agriculture, followed by residential at approximately 41% and 31%, respectively. Commercial uses are generally permitted in the EC Districts (employment center) and the TC Districts (town center). The EC Districts are concentrated in the northern half of the Township along Uhler Road, Kesslerville Road, and Sullivan Trail. The intent of the EC Districts is to promote and encourage employment opportunities within the Township for desirable office, service and manufacturing uses. The TC Districts are concentrated in the southern half of the Township along Sullivan Trail, and includes the municipal complex and community park. The intent of the TC Districts to promote a cultural, social and commercial center in the Township. Institutional zoning districts (REM Recreational/Educational/Municipal District) and uses are scattered throughout the Township and include all levels of schooling, religious institutions, airport facilities, and municipally-owned properties. Open space amounts to 5 percent of land area in the Township and includes private open space areas commonly owned by homeowner's associations. Vacant and/or undeveloped land accounts for approximately 4 percent of land in the Township.



**Table 4. Land Use, 2019**

Land Use Category	Acreage	Percentage
Agricultural	3070.90	41.11%
Residential	2343.58	31.37%
Commercial	176.96	2.37%
Mixed Use	3.77	0.05%
Institutional	548.96	7.35%
Industrial	578.69	7.75%
Transportation/Utility	91.47	1.22%
Private Open Space	373.31	5.00%
Vacant/Undeveloped	282.18	3.78%

**Figure 3: Forks Township Land Use by Percentage 2019**





## 1.4 Build-Out Analysis

The purpose of the Land Use Assumptions Report is to estimate levels of future development in order to develop traffic projections and update the Roadway Sufficiency Analysis and Capital Improvement Plan that will apply to the 9-year planning horizon (to the year 2030).

Based on estimates by the US Census Bureau, approximately 15,470 people lived in Forks Township as of 2019 which was a 5.1% increase since 2010. The estimated increase from 2019 to 2020 is 0.7%. Further, based on the 2017 Population Projections by LVPC, the 2020 to 2030 population rate increase is proposed to be 16% which was considered in the 2040 build-out scenario. A correlation was assumed between the projected population growth rates and the number of new housing units.

Also, in determining the potential build-out for the Township, the subdivision and land development activity was listed for 2010 to 2020 based on Township records. Tables 5 and 10 identify the applications and respective status at the time this report was prepared. These projects are anticipated to be completed within the next decade.

In addition to projected growth rates and the current subdivision and land development applications, developable parcels and 2020 available imagery data were also reviewed to determine the remaining development potential for the Township. An analysis was performed of the remaining parcels within the Township greater than 5 acres which have a potential for future residential or non-residential subdivision or development, whether permitted to be developed or as permitted by current zoning regulations. The existing land uses were confirmed, and vacant, underdeveloped, agricultural lands and private properties with development potential were identified. Vacant and unrestricted agricultural land contain the greatest potential for development. Temporarily protected open space includes golf courses, private open space, and private properties under the provisions of Act 319 and 515. The sum of these temporarily protected areas make up approximately 2,858 acres of the 7,853 total acres in the Township. It was assumed that each parcel will be developed under its current zoning designation, and it was also assumed that they will be developed conventionally as by-right or by conditional uses, and not as cluster options. Permanently preserved properties, schools, public open space, and churches have been excluded from the analysis for the purpose of this study assuming that they will be retained as their current use. Parcel build-out was analyzed on an individual lot basis and did not consider shared infrastructure that may be possible through consolidation of adjacent lots.

The site capacity analysis considered areas controlled by zoning such as required open space and natural resources that are required to be protected. By applying zoning regulations for minimum lot area and maximum building coverage to these developable lands, future development potential was estimated for the full build-out scenario. From these projections, specific road improvements can be planned in advance and development fees can be set aside for these improvements until they can be funded, designed and installed.

## Section 2. Residential Build-Out Analysis

### 2.1 Residential Land Development Activity

There were approximately 6,017 housing units in the Township in 2019 per the US Census Bureau 5-year estimates. Table 5 below documents the available records of residential activity for the past 10 years.



**Table 5: Residential Subdivision and Land Development Activity in the TSA, 2010-2020**

<b>TMP No.</b>	<b>Plan Name</b>	<b>No. of Units</b>	<b>Description</b>	<b>Status</b>
<b>J9 13 12</b>	Tom Dietzler	1	SFD	Constructed
<b>K9 13 7</b>	Pheasant Ridge V	50	SFD	Preliminary
<b>J9 15 7C</b>	Brad Kiefer Minor Subdivision	2	SFD	Constructed
<b>K9 15 1A-78</b>	Sullivan Park Apartments	102	Multi-Family	Under Construction
<b>K9 10 6</b>	Penn's Ridge, Ph 13 & 14	65	SFD	Constructed
<b>K9 10 7A</b>	Lafayette Hills @ Bushkill	216	SFD and SFA	Under Construction
<b>K10 1 16B-2C</b>	Riverview Estates, PH 6	108	Multi-Family	Preliminary
<b>K10 1 16B-2C</b>	Riverview Estates/Phase 5	87	SFD	Preliminary
<b>J9 21 5</b>	Country Meadows Retirement	84	Multi-Family (retirement community)	Constructed
<b>Total Residential Units</b>				<b>715</b>

From 2010 to 2020, approximately 152 housing units of the 715 total approved have been constructed, which yields approximately 409 new residents based on the U.S. Census' rate of 2.69 persons per household. The total potential number of new residents assuming each project is fully constructed within the next ten years is about 1,923 residents.

## 2.2 Methodology

Within the TSA there are ten zoning districts which permit residential uses – the Farmland Protection (FP) District, the Open Space Residential (OR) District, the Country Residential (CR) District, the Suburban Residential (SR) District, the Suburban Residential/Mobile Home (SR-1) District, the Town Center/Apartment (TC-1) District, the Employment Center/Mobile Home (EC-1) District, the Employment Center/Apartment (EC-3) District, the Riverfront Conservation (RC) District, and the Heritage Corridor (HC) District (refer to Table 6: Permitted Residential Uses by Zoning District). An inventory was taken of the developable parcels within the Township. Developable lands in this instance included vacant land, temporarily protected open space or agricultural land, and underutilized properties. The minimum lot size was used to determine the potential amount of land area within each zoning district that could be developed for residential uses, excluding 20% to account for roadways and other landscape constraints except for those districts which permit a maximum density rate for residential uses. In those instances (EC-3 District apartment use, OR District cluster use, and CR District cluster use) the potential amount of land area within each zoning district that could be developed for residential uses was determined using the net buildable site area (gross site area minus resource protection lands i.e., floodplains, waterbodies, wetlands, steep slopes, woodlands, and riparian buffer areas) or gross site area (as per density requirements in the EC-3 District). Parcels that did not meet the minimum tract size for their zoning district were also omitted from the analysis, if applicable, as those parcels would be ineligible for development under the zoning regulations.



**Table 6: Permitted Residential Uses by Zoning District**

<b>Zoning District</b>	<b>Use Description</b>	<b>Max. Density (Units Per Acre)</b>	<b>Min. Lot Area</b>	<b>Min. Open Space Ratio</b>
<b>FP (By-Right Use)</b>	Single Family Detached	N/A	3 ac.	
	Single-Family Detached Cluster (Min. 2 Ac. Gross Site Area)		1 ac.	0.50
<b>EC-1 (Conditional Use)</b>	Mobile Home Park (Min. 5 Ac.; Max. 35 Ac. Gross Site Area)	3.6		0.20
<b>EC-3 (By-Right Use)</b>	Apartment	15 (per gross ac.)	1 ac.	
	Mixed Use Apartment/Commercial	15 (per gross ac, including land that is designated for commercial component)	1 ac.	
<b>HC (By-Right Use)</b>	Single-Family Detached Dwelling		40,000 s.f.	
<b>OR (By-Right Use)</b>	Single-Family Detached Dwelling (Min. 25,000 SF Gross Site Area)		24,000 s.f.	
	Single-Family Detached Cluster (Min. 10 Ac. Gross Site Area)	1.8	12,500 / 10,000 s.f.	0.40 / 0.50
<b>RC (By-Right Use)</b>	Single-Family Detached Dwelling (with public water & sewer)		20,000 s.f.	
	Single-Family Detached Dwelling (without public water & sewer)		40,000 s.f.	
<b>CR (By-Right Use)</b>	Single-Family Detached Dwelling		15,000 s.f.	
	Single-Family Detached Cluster (Min. 10 Ac. Gross Site Area)	3	10,000 s.f.	0.25
	Age-restricted housing (Min. 5 Ac. Gross Site Area)	4.5	87,120 s.f.	
<b>SR (By-Right Use)</b>	Single-Family Detached Dwelling (Min. 9,000 S.F. Gross Site Area)		9,000 s.f.	
	Single-Family Detached Cluster (Min. 10 Ac. Gross Site Area)	4	6,500 s.f.	0.30
	Apartments	Not to exceed 15 units per gross ac.	1 ac.	
<b>SR (Conditional Use)</b>	Performance Subdivision / Age- Restricted Housing (Min. 10 Ac. Gross Site Area)	5.5	4,000 / 5,500 s.f.	0.20
<b>SR-1 (By-Right Use)</b>	Single-Family Detached Dwelling (Min. 9,000 S.F. Gross Site Area)		9,000 s.f.	
	Single-Family Detached Cluster (Min. 10 Ac. Gross Site Area)	4	6,500 s.f.	0.30



	Apartments	Not to exceed 15 units per gross ac.	1 ac.	
<b>SR-1 (Conditional Use)</b>	Performance Subdivision / Age-Restricted Housing (Min. 10 Ac. Gross Site Area)	5.5	4,000 / 5,500 s.f.	0.20
	Mobile Home Park (Min. 5 Ac.; Max. 35 Ac. Gross Site Area)	3.6		0.20
<b>TC-1 (By-Right Use)</b>	Apartments	15 units per gross ac.	1 ac.	

### 2.3 Long Term Projections

Using the methodology noted above, the result of the analysis yielded a projection of about 2,234 new housing units that could be built within the TSA *if every parcel were to be developed to the maximum density permitted under each zoning district*. This kind of development is very unlikely to occur within the next ten years, if ever, and would be spread instead over many decades. It is unlikely that the Township will ever see a full build-out of all potential parcels because residents may wish to preserve the historic rural character of the area and retain some land as undeveloped or continue to place more land under land conservation programs.

**Table 7: Residential Build-Out Analysis**

Zoning District	Total Developable Acres	Potential Housing Units
<b>FP</b>	482.66	482
<b>EC-3</b>	61.75	1,111
<b>HC</b>	30.3	32
<b>OR</b>	68.9	124
<b>RC</b>	54.67	59
<b>CR</b>	141.53	424
<b>SR</b>	0.56	2
<b>Totals</b>	<b>840.37 acres</b>	<b>2,234 units</b>

It should be noted that the EC-1, the SR-1 and the TC-1 Districts were excluded from the residential build-out analysis despite permitting residential uses due to the developable land area within each zoning district not being adequate in size to permit residential development as per zoning ordinance requirements.

### 2.4 Short Term Projections

Short-term projections estimate the portion of the projected long-term development that may be reasonably anticipated through 2040. Using the population projections provided by the Lehigh Valley Planning Commission and assuming the population will increase as projected, the calculation for the required number of housing units needed to be provided to accommodate those new households can be determined. The trend line of the average household size is applied to determine how many residential units will be needed to house the incoming population (Table 8). Accommodating DUs (dwelling units) refers to the number of additional dwelling units needed to accommodate the projected population at

the projected household size. The Township's average household size as of the 2010 census was 2.72. The 2020 census estimates an average household size of 2.69, representing a change of -1.1% over a ten year period.

The 2019 ACS 5-year estimates indicate Forks Township has 6,017 (+/- 212) dwelling units which, even given the lower margin of error (5,805 units) is actually greater than the number of units needed to house the existing population based on the population and household size and therefore sufficient to meet the current housing needs. By 2040 the population will require approximately 1,656 new units to be built. Based on the proposed and approved residential developments, a total of 880 additional units could be built if all of the proposed and approved residential developments progress to final construction. This alone would be sufficient to satisfy the projected housing needs of the population over the next ten years (to 2030) without additional residential housing developments being proposed.

**Table 8: Population-Driven Model of Potential Future Housing Units**

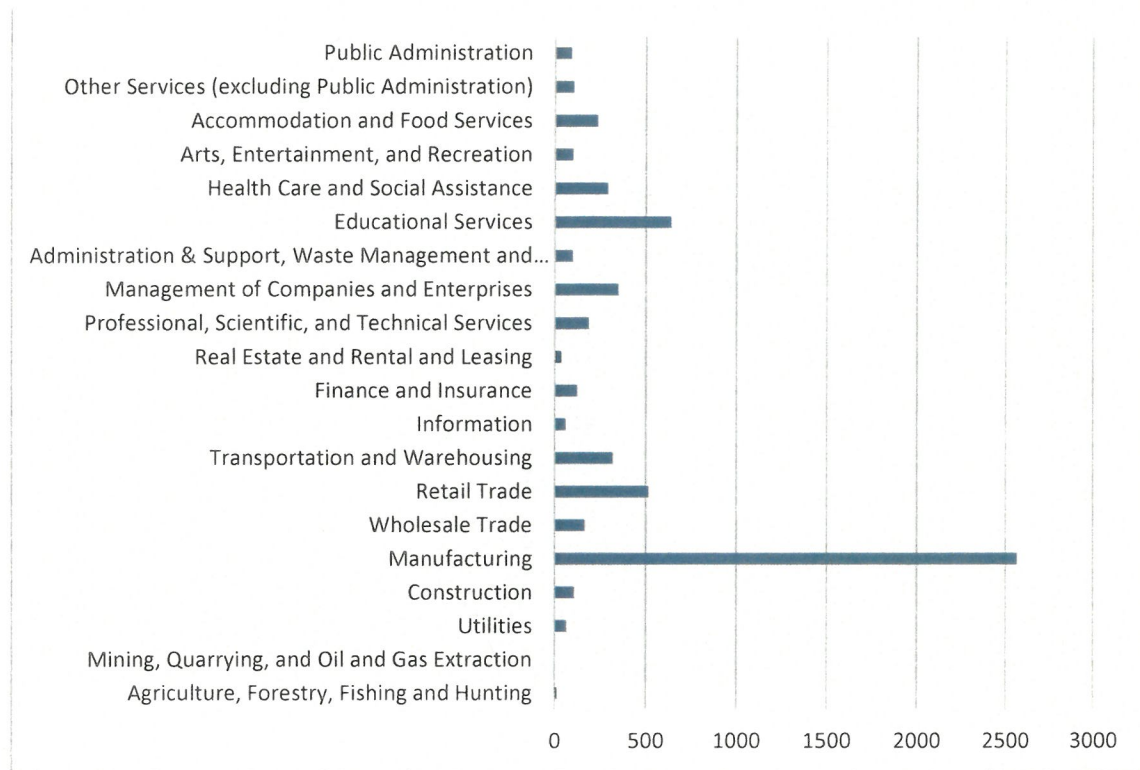
	2020	2030	2040
<b>Projected Population</b>	15,576	18,164	20,069
<b>Average HH Size</b>	2.69	2.66	2.63
<b>Accommodating DUs</b>	5,790	6,829	7,631
<b>New Units Needed</b>	-227	802	1,614

## Section 3. Non-Residential Build-Out Analysis

### 3.1 Employment

Employment by occupation shows that Forks Township is predominantly comprised of those employed in the manufacturing industry. Current data shows more manufacturing jobs than educational services, retail trade, and management of companies and enterprises jobs combined. Mining, quarrying, and oil and gas extraction work is at the bottom of the employment list. Figures 5 and 6 summarize the available US Census employment data:

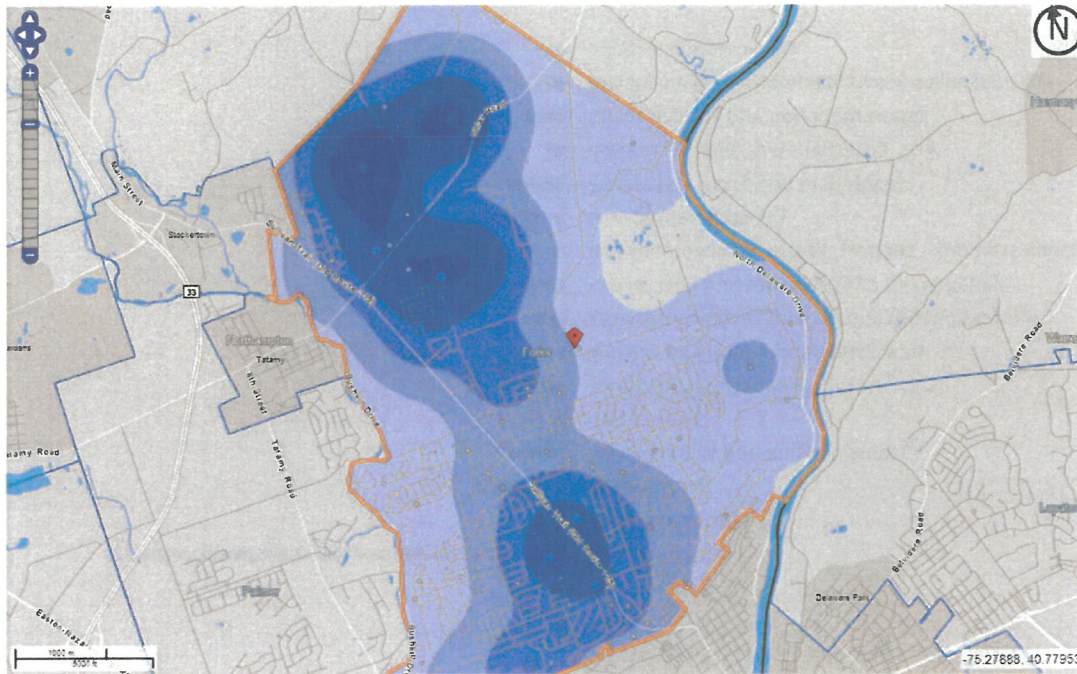
**Figure 5: Forks Township Employment by NAICS Industry Section, 2018**



*Source: U.S. Census Bureau, On the Map*



**Figure 6: Forks Township Work Area Profile**



Source: U.S. Census Bureau, On the Map

#### Map Legend

- 5 - 127 Jobs/Sq.Mile
- 128 - 493 Jobs/Sq.Mile
- 494 - 1,104 Jobs/Sq.Mile
- 1,105 - 1,958 Jobs/Sq.Mile
- 1,959 - 3,058 Jobs/Sq.Mile
- 1 - 2 Jobs
- 3 - 29 Jobs
- 30 - 145 Jobs
- 146 - 458 Jobs
- 459 - 1,118 Jobs
- N Analysis Selection

As per LVPC, the top five municipalities in Northampton County projected to experience the highest growth in employment through 2040 in terms of numerical growth are: the City of Bethlehem (Lehigh and Northampton County portions combined), Bethlehem Township, Lower Nazareth Township, Forks Township and Palmer Township. LVPC forecasts project an overall increase of 10.2% in employment for Forks Township between 2020 and 2030. It is anticipated that employment will increase by 1,009 jobs within the Township between 2020 and 2030 as noted below in Table 9.

**Table 9: Projected Employment in the Township (Number of People)**

	YEAR		
	2010	2020	2030
<b>Projected Employment</b>	7,813	9,855	10,864

Source: LVPC Employment Projections

### 3.2 Non-Residential Land Development Activity

Approximately forty-one non-residential development applications have been received within the past 10 years. As of July 2021, approximately 930,000 square feet of buildings have been constructed, with an additional 464,000 square feet currently under construction. Fourteen non-residential developments have been approved or are currently under review totaling approximately 750,000 square feet of potential buildings.

**Table 10: Non-Residential Subdivision and Land Development Activity in the TSA, 2010-2020**

TMP No.	Plan Name	Building Sq. Ft.	Description	Status
K9SE1 1 6	Accredited Dermatology	1,600	Office	Approved
J9 9 5	Daniels SharpSmart, Inc.	18,700	Manufacturer	Approved
J9 16 1B-1	Alfero Construction Co	3,876	Warehouse/Retail	Constructed
J9 13 1	Anchor Concrete	2,800	Office	Constructed
K9 15 6	B Land Co. Commercial	10,000	Commercial	Constructed
K9 15 6	B Land Co. Commercial	3,900	Drive Thru Restaurant	Constructed
J9 15 6-3	Bakerly Building & Parking Expansion	19,110	Manufacturer	Constructed
J9 15 6-3	Brownstone Land Development	77,685	Manufacturer	Constructed
J9 15 6-3	Browntone Food Product	19,110	Commercial	Constructed
J9 15 8D-4	Cigar Domain	2,000	Restaurant	Constructed
J9 3 1	Customer Experience Center (Victaulic)	1,500	Hospitality	Constructed
J9 15 8D-1	Ecopax Building Addition	75,000	Commercial	Constructed
J9 15 8D-4	Famous Smoke Shop	2,000	Retail	Constructed
J9 15 6-1	Forks Industrial Flex Development	475,800	Commercial	Constructed
J9 15 8A-1	Harvel Plastics	1,888	Warehouse/Office	Constructed
J9 12 4	Indoor Batting Facility	7,680	Commercial	Constructed
J9 15 6-2	Lot 2 Braden	29,728	Manufacturer	Constructed
J9 15 8D-3	Polykoke Expansion	19,746	Manufacturer	Constructed
J9 11 1	Storage Center on Sullivan	10,200	Storage	Constructed
J9 9 1A	Straight Arrow	22,900	Retail	Constructed



<b>J9 3 3</b>	Victaulic Word Headquarters Guest House	7,735	Hospitality	Constructed
<b>J9 15 8A</b>	Western Express	142,000	Commercial	Constructed
<b>J9 16 1B-1</b>	WW Transport & Great Rive	3,876	Manufacturer	Constructed
<b>J9 15 11A</b>	Crafted Landscaping Corp	6,900	Retail	Under Construction
<b>J9 15 8D-1</b>	Ecopax Building Expansion	40,000	Manufacturer	Constructed
<b>J9 1 3A</b>	Follett Building Expansion	90,344	Manufacturer	Under Construction
<b>J9 15 6-8</b>	Lot 8 - Braden BLVD E (Fort James III)	104,890	Warehouse/Industrial	Constructed
<b>J9 16 2</b>	Padula Road Distribution Center	433,000	Warehouse	Under Construction
<b>K9SE4 1 4</b>	Sullivan Trail Land Dev Drive Thru	7,510	Restaurant	Under Construction
<b>J9 15 8A</b>	600 Kuebler Redevelopment	220,100	Warehouse	Under Review
<b>J9 15 6-15</b>	Bethlehem PA Army Reserve	23,211	Retail	Constructed
<b>J9 1 3A</b>	Follett Corp Building Expansion	25,165	Manufacturer	Constructed
<b>J9 16 4</b>	Glover Commercial Dev	160,000	Industrial	Under Review
<b>J9 15 11</b>	Gnap Dev Richmond Rd	10,000	Warehouse	Under Review
<b>K9SE1 5 15</b>	Kost Auto Service Center	6,136	Retail	Constructed
<b>J9 13 6E</b>	Leader of the Pack Canine	26,125	Vet Office	Under Review
<b>J9 9 10</b>	Lot 6 Conroy Place	55,000	Manufacturer	Under Review
<b>J9 13 14</b>	Northampton City Senior Center	5,703	Commercial	Constructed
<b>K9SE1 1 15</b>	Posh Prop/Commercial Dev	10,000	Commercial	Under Review
<b>K9 15 6</b>	Sullivan's March Enterprise/St. Luke's Health Center	17,376	Commercial	Constructed
<b>Total Square Footage</b>				<b>2,152,027</b>

### 3.3 Methodology

The Township has eight (8) zoning districts that allow non-residential development as by-right uses which are the Town Center, Town Center/Apartment, Employment Center, Employment Center/Mobile Home, Employment Center/Landfill, Employment Center/Apartment, Riverfront Conservation, and Heritage Corridor District districts. For the purposes of the build-out analysis those zoning districts which permit both residential and non-residential development and were already utilized for calculating the residential



build-out analysis were excluded from the non-residential calculations. Special exceptions were not considered in this analysis. All parcels that are categorized as “developable land” within the TSA’s and are zoned in a district that permits non-residential development were identified. The calculations do not generally account for redevelopment of any existing sites. Also excluded are parcels with a pending non-residential development proposal. The developable land was determined by assuming a percentage of natural resources based on 2019 aerial imagery.

### 3.4 Long Term Projections

The total undeveloped land area within each zoning district was determined using aerial maps. From this area resource protected land i.e., floodplains, waterbodies, wetlands, steep slopes, woodlands, and riparian buffer areas were subtracted to calculate the net buildable site area. For those zoning districts with a permitted maximum building coverage the developable land area was multiplied by the maximum building coverage to calculate the maximum potential square footage. The TC District does not include provisions for a maximum building coverage. For calculating the build-out potential of this district the maximum impervious ratio was used. The maximum impervious ratio included buildings, parking areas and drive aisles with the assumption of the average non-residential parking requirement of one parking space per 200 square feet of floor area.

**Table 11: Non-Residential Build-Out Analysis**

<b>Zoning District</b>	<b>Minimum Lot Area</b>	<b>Maximum Building Coverage</b>	<b>Maximum Impervious Ratio</b>	<b>Developable Square Feet</b>	<b>Maximum Build Out Square Feet</b>
<b>TC</b>	10,000 s.f.		0.75	1,232,748	284,480
<b>EC</b>	43,560 / 80,000 s.f.	0.40	0.70	15,263,424	6,105,369
<b>EC-1</b>	43,560 / 80,000 s.f.	0.40	0.70	646,866	258,746
<b>EC-2</b>	43,560 / 80,000 s.f.	0.40	0.70	2,035,559	814,223

The results of the analysis yielded a projection of approximately 7.5 million square feet of non-residential space that could potentially be built-out within the Township if every parcel were to be developed to the anticipated maximum density under each zoning district with the above noted assumptions.

### 3.5 Sewer Capacity

In 2013 the Township updated their Act 537 Plan. The Plan noted that the Farmland Protection (FP) and Riverfront Conservation (RC) districts were to continue being served by private systems, as well as a portion of the Open Space Residential (OR) district around Paxinosa Road East. The remaining zoning districts in the Township would be served by public water and sewer (see Figures 7 and 8).

Figure 7: Forks Township Sewer Service Area

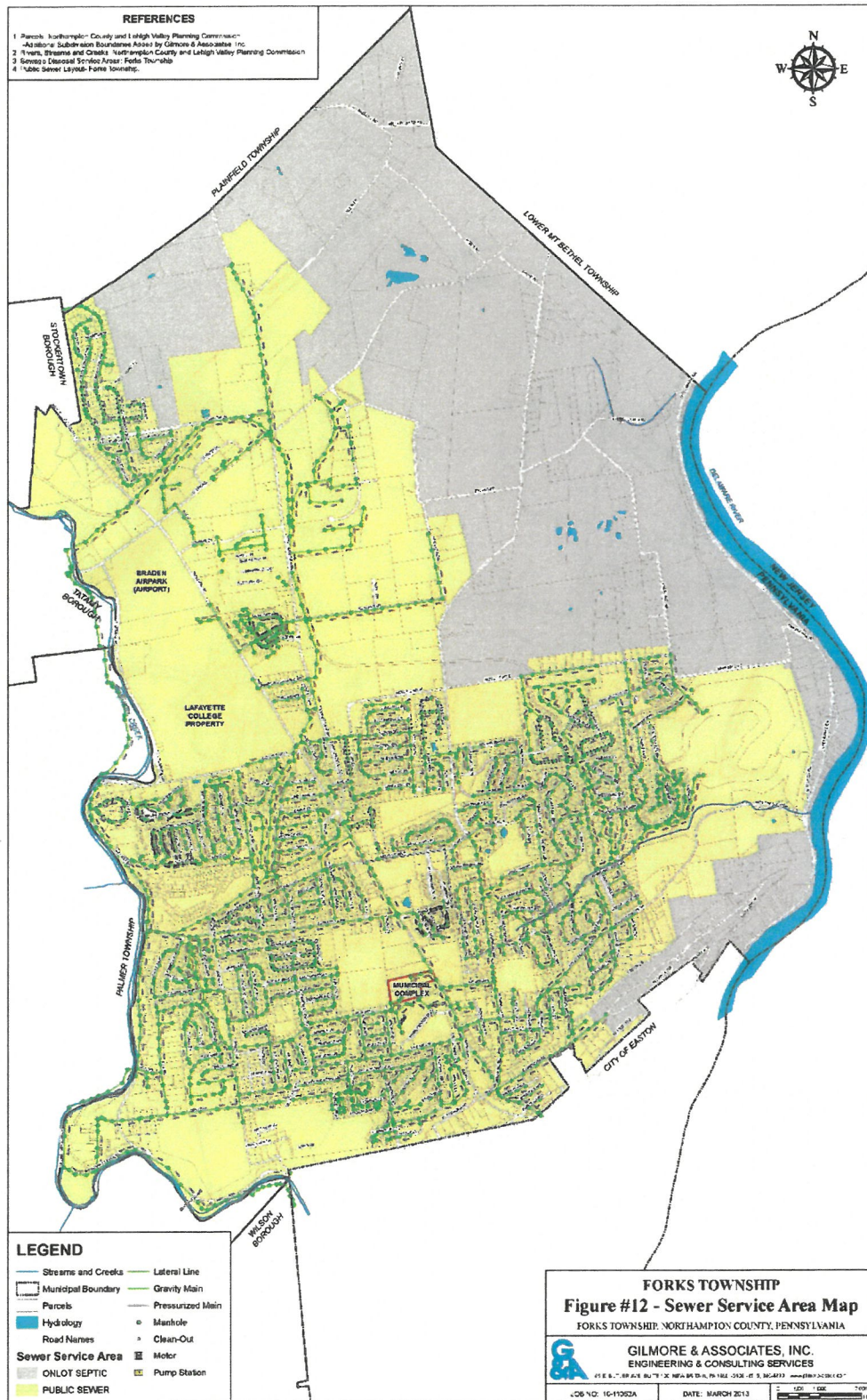
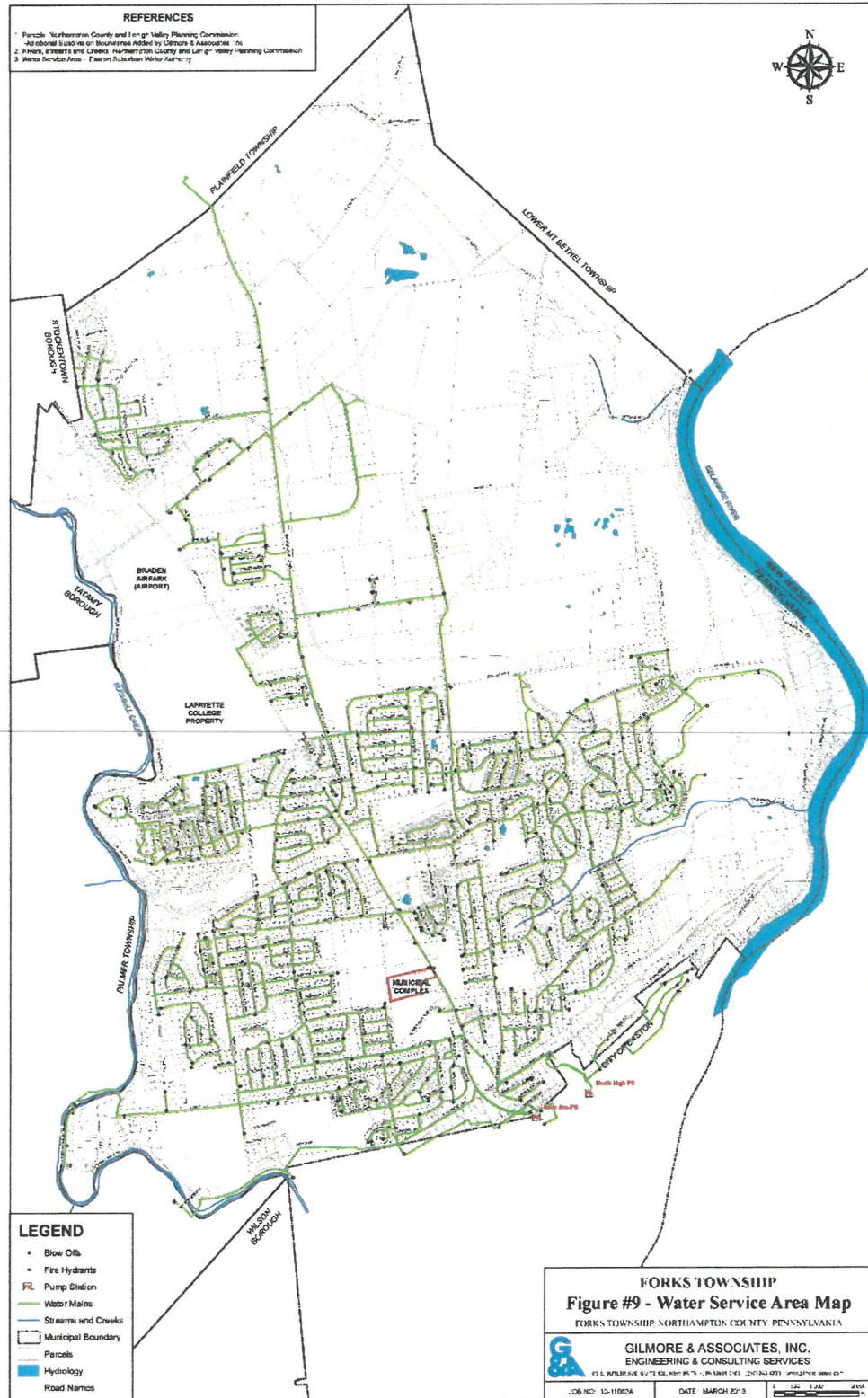




Figure 8: Forks Township Water Service Area



It is anticipated that much of the growth within Forks Township is expected to be in the form of build-out of existing residential and/or commercial developments, mostly of which are to be served by public sewer and water.

## Section 4. Findings

### 4.1 Residential

Between 2010 and 2019, Forks Township experienced a population increase of 5% - one of the largest increases in the region. According to LVPC, Forks and its surrounding communities will continue to see some of the highest growth rates in the County. Projections anticipate an almost 30% increase in the Township population between 2020 and 2040.

Residential use accounts for about 31% of the land area in the Township. As per the 2019 ACS 5-year estimates, there are approximately 6,017 dwelling units in Forks. Land development activity indicates that in the last ten years over 1,000 residential units have been constructed or are in the process of being constructed.

At full build-out, a total of 2,234 residential dwelling units could potentially be accommodated within Forks Township. Combining the potential number of units (2,234) with the existing number of units (6,017) exceeds the capacity necessary to accommodate the housing needs of the projected Forks Township population through 2040.

### 4.2 Non-Residential

Similar to the projected population growth rate in the Township, LVPC predicts that Forks Township will be one of the top five municipalities in Northampton County to experience the highest growth in employment. The primary employment industry within the Township is manufacturing and industrial uses amount to 8% of the land area in Forks. In the last ten years over 2 million square feet of non-residential building space has been approved and constructed. Full build-out potential would yield approximately 7.5 million square feet of additional non-residential building area.

## References

1. Site Selection Magazine. "2019 Mac Conway Awards."  
<https://siteselection.com/issues/2019/may/2019-mac-conway-awards.cfm>
2. Lehigh Valley Planning Commission. *Comprehensive Plan: The Lehigh Valley...2030*. April 28, 2005, updated June 2010.
3. Lehigh Valley Planning Commission. *The People: Population Projections and Employment Projections*. 2017.
4. U.S. Census Bureau and American Community Survey Estimates.
5. Gilmore and Associates, Inc. "Revision of Sewage Facilities Plan Act 537 for Forks Township." October 2013.
6. Forks Township Zoning Ordinance, adopted August 21, 2014. <https://ecode360.com/8571248>