Land Use Assumptions Report

REPORT 1 OF THE PENN TOWNSHIP ACT 209 TRAFFIC IMPACT FEE ORDINANCE – 2024 UPDATE

This report presents the assumed future land use condition in Penn Township for the horizon year 2034 as the basis for projecting future traffic conditions and needed capital improvements to be presented in forthcoming reports. Land use assumptions are based on existing land use patterns and future development that is anticipated to be completed before the horizon year.

DRAFT JUNE 4, 2024

GANNETT FLEMING, INC.

Land Use Assumptions Report

Draft May 29, 2024

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Introduction

Purpose

The Land Use Assumptions Report presents the existing land use pattern within the Penn Township in 2023 and the assumed changes in land uses through the horizon year of 2034.

Township Location & Regional Context

Penn Township encompasses 15,500 acres (24 square miles) in south central Butler County, PA, just south of the City of Butler, the county seat, and approximately 30 miles north of Pittsburgh. The township is bisected north-south by Pennsylvania State Route 8, a rural highway connecting communities between Erie and Wilkinsburg, PA. The township is home to Butler area destinations such as the Pittsburgh-Butler Regional Airport, formerly known as Butler County Airport, three golf courses, the Penn Valley Athletic Club, as well as small to moderately sized businesses along Route 8.

The urbanized Pittsburgh region has expanded into Butler County and other counties that adjoin Allegheny County. Intensive development has occurred in municipalities along major north-south highways, such as Cranberry Township and Lancaster Township along I-79 and US Route 19 in western Butler County, resulting in increased traffic volumes and congestion on rural state and local road networks.

Methodology& Data Sources

The Land Use Assumptions Report was prepared in compliance with Article V-A Municipal Capital Improvement of the Pennsylvania Municipalities Planning Code (MPC) and guidance provided by PennDOT's <u>Transportation Impact Fees Handbook (PUB 639, November 2007)</u>. Analyses in this report relied on land use/landcover data from the Southwestern Pennsylvania Commission (SPC) as well as zoning data and anticipated future development types and locations from Penn Township.

The MPC limits the application of traffic impact fees to a maximum area of seven square miles. For compliance, and consistent with the analysis that established the township's 2006 Traffic Impact Fee Ordinance, six transportation service areas (TSAs) are established for this study. Pennsylvania State Route 8 bisects the township into eastern and western "halves," while state and local roads divide each "half" into thirds. The size of each TSA in acres and in square miles is shown in Table 1.

Table 1. Transportation Service Areas

	NW	NE	w	E	sw	SE	Total
Transportation Service Areas (acres)	1,822	1,774	2,202	3,373	2,736	3,648	15,555
Transportation Service Areas (square miles)	2.85	2.77	3.44	5.27	4.27	5.70	24.30

Existing Conditions

Land Use & Land Cover

The township is a rural community where farms and woodlands are the predominant land cover. Most commercial development and several residential subdivisions exist along the Route 8 corridor. Other rural residences are found along state and local roadways throughout the township.

SPC's land use/land cover data (2016) was updated to 2023, referencing Google aerial imagery. **Table 2** presents the distribution of land use/land cover in Penn Township in 2023. **Map A** illustrates the land use/land cover pattern in 2023.

Developed Land Uses

Nearly 4,500 acres (4,493 acres or 29 percent) of the township have been developed for intensive residential, commercial, or public-/community-serving uses. These land uses are low in density or intensity and generally not mixed within lots or buildings. Developed land uses include:

- 3,342 acres (21 percent) in residential uses, including areas maintained as residential yards, in all six transportation services areas and especially concentrated in the western (W) TSA.
- 254 acres (2 percent) in commercial uses, concentrated along Route 8 om the SW and SE TSAs.
- 32 acres (<1 percent) in resource extractive uses at a single site, Raducz Stone, in the NE TSA.
- 292 acres (12 percent) in use for public- or community-serving facilities, such as the Pittsburgh-Butler Regional Airport, the Saxonburg Area Authority Pump Station, and the Penn Township Municipal Building and Public Works facility.
- 631 acres (4 percent) in other urbanized community-serving uses such as public and/or private
 outdoor recreation including Harcrest Park, Succop Nature Park, the Butler Country Club, Conley
 Resort & Golf, and LakeVue North Golf Course, primarily located in the western (W) and
 southwestern (SW) TSAs. Other Urban also includes 11 acres of "transitional lands" that show
 signs of land cover disturbance but cannot be clearly interpreted as a specific developed land
 use.

Penn Township assumes these developed land areas will remain in use at similar intensities through the year 2034.

Open Space Land Uses

Nearly 11,030 acres (11,027 acres or 71 percent) of the township is covered by native, naturalized, or cultivated vegetation and used as farmland, woodland, or other open space. Undeveloped open space land uses include:

- 4,031 acres (26 percent) covered in crops, pasture, orchards, and groves and classified as agriculture, which is most contiguous in the western (W) and southwestern (SW) TSAs.
- 6,428 acres (41 percent) covered in woodland or forest vegetation, which is most contiguous in the NW, E, and SE TSAs.

• 532 acres (4 percent) covered by other managed vegetation and classified as Other Open Space, found as small pockets throughout the township.

Penn Township assumes that the majority of these open space use areas will be unchanged through the year 2034. Lands identified for anticipated development are presented on page 14.

Less than one percent of the township (68 acres) is covered by surface waters, namely private ponds.

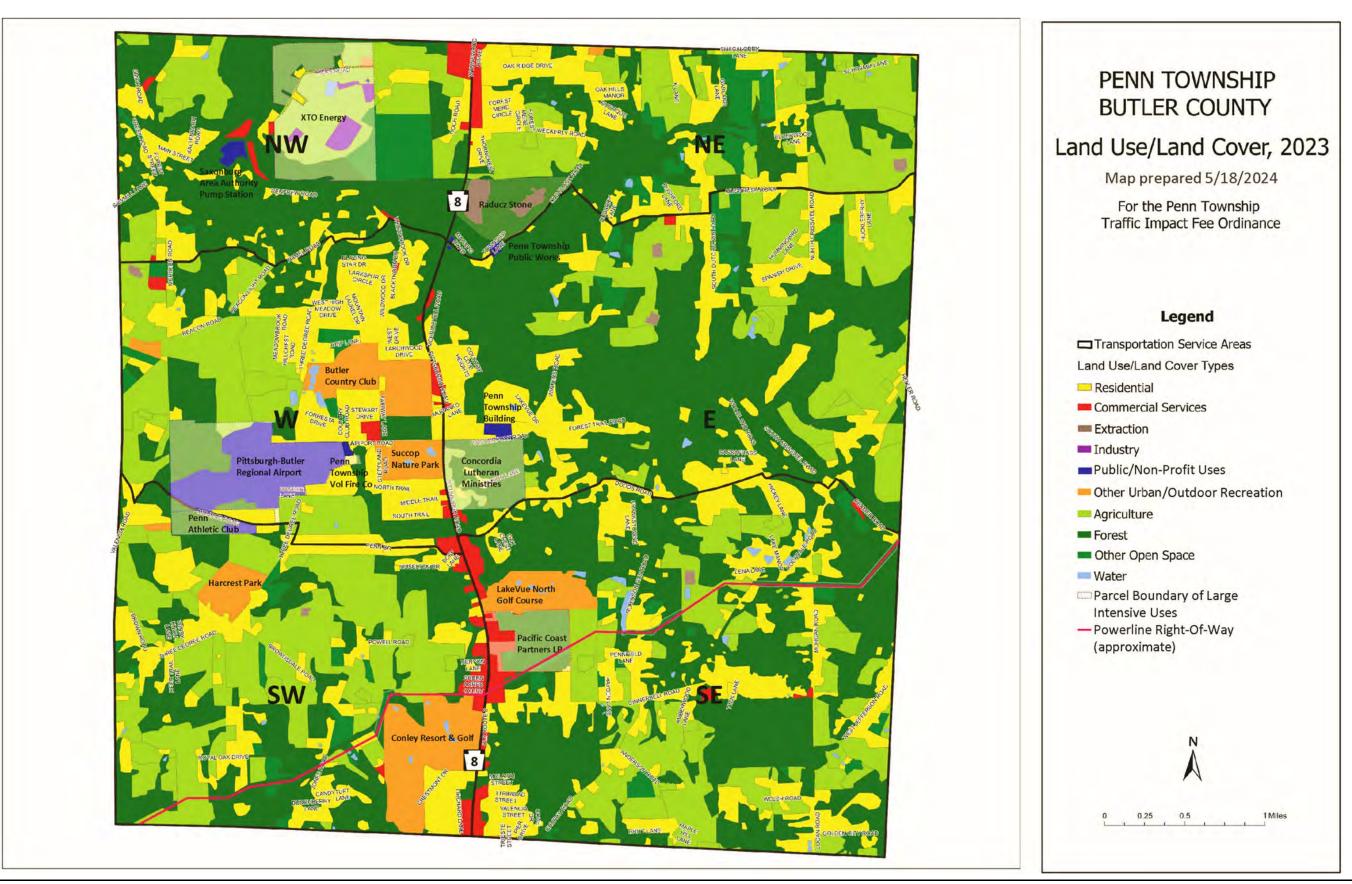
Table 2. Land Use Distribution, 2023

		Tra	nsportation	Service A	Areas		Total
	NW	NE	W	E	SW	SE	Township
Developed Land Uses (acre	es)						
Residential	241	418	653	673	527	827	3,340
% of TSA/Township Total	13%	24%	30%	20%	19%	23%	21%
Commercial	42	22	37	14	49	90	254
% of TSA/Township Total	2%	1%	2%	0%	2%	2%	2%
Industrial	28	3	2	5	1	4	43
% of TSA/Township Total	2%	0%	0%	0%	0%	0%	0%
Resource Extraction	-	32	-	-	-	-	32
% of TSA/Township Total	0%	2%	0%	0%	0%	0%	<1%
Public/Community- serving	12	4	214	12	2	-	244
% of TSA/Township Total	1%	0%	10%	0%	0%	0%	2%
Other Urban	3	4	212	1	228	98	546
Other Urban Distribution	0%	0%	10%	0%	8%	3%	4%
Developed Use Subtotal	326	483	1,119	705	1,020	1,043	4,459
% of TSA/Township Total	18%	27%	25%	16%	18%	23%	29%

Continued

		Tra	nsportation	Service A	reas		Total
	NW	NE	W	E	SW	SE	Township
Open Space Land Uses (acr	es)						
Agricultural	439	587	523	705	1,020	757	4,031
% of TSA/Township Total	11%	15%	13%	17%	25%	19%	26%
Forest	927	573	510	1,859	816	1,743	6,428
% of TSA/Township Total	14%	9%	8%	29%	13%	27%	41%
Other Open Space	126	124	36	94	85	103	532
% of TSA/Township Total	7%	7%	2%	3%	3%	3%	4%
Open Space Use Subtotal	1,491	1,284	1,069	2,658	1,921	2,603	11,027
% of TSA/Township Total	14%	12%	10%	24%	17%	24%	71%
Water (acres)	5	6	14	10	7	26	68
% of TSA/Township Total	<1%	<1%	1%	<1%	<1%	1%	<1%
Total	1,822	1,774	2,201	3,373	2,735	3,648	15,553

Source: Southwestern Pennsylvania Commission (SPC); Gannett Fleming, Inc.



Protected Lands

Floodplains and wetlands are land areas that perform critical water storage and water filtration and infiltration functions in the environment. These land areas are protected from development through federal, state, and local regulations.

Table 3 presents acreages of the 100-year floodplains and potential wetlands (as classified by the National Wetlands Inventory) by TSA. **Map B** shows the locations of these environmentally sensitive lands.

Nearly 525 acres (3 percent) of the township are covered by floodplains and potential wetlands. These lands include:

- 338 acres of 100-year floodplain; these are land areas with a one percent chance of flooding each year as designated by the Federal Emergency Management Agency.
- 193 acres of potential wetlands; these land areas have specific characteristics of wetlands—vegetation, visible hydrology, and geography—but have not been field-verified.

Potential wetlands associated with Thorn Creek and other water bodies occur in areas also designated as floodplains. Therefore, the protected land acreage is less than the sum of these two feature areas.

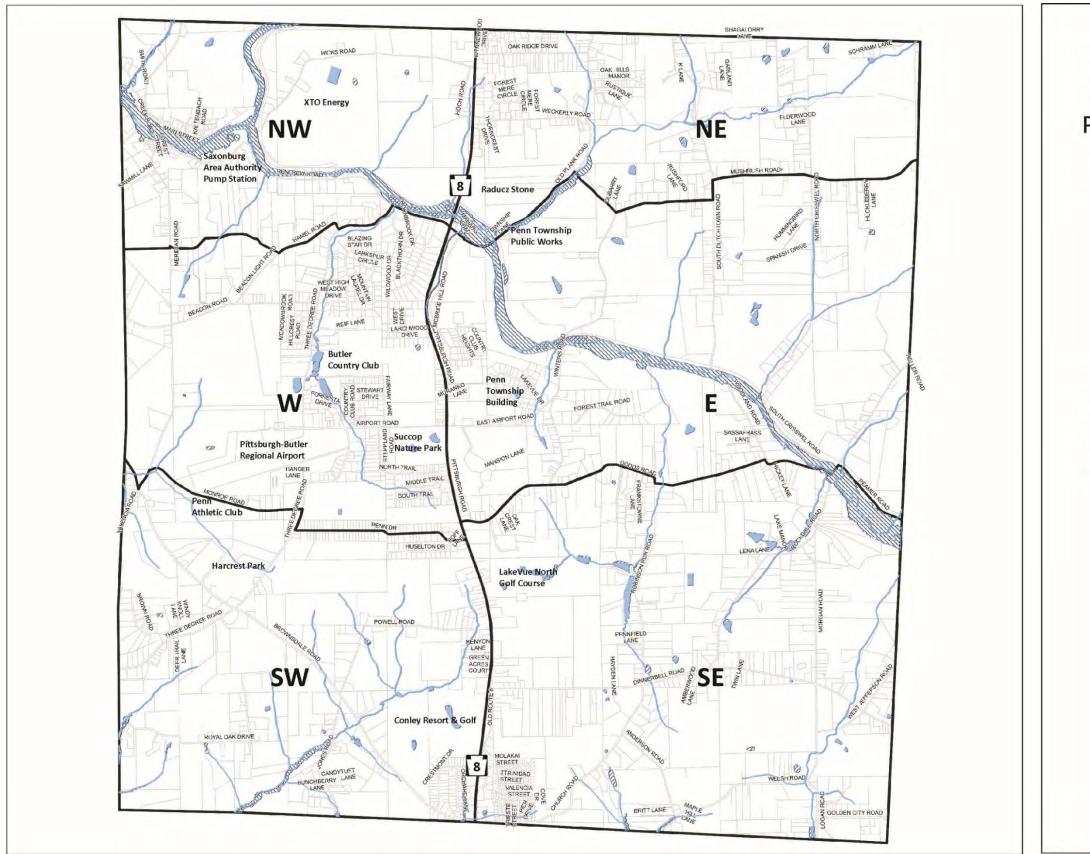
Penn Township assumes that these lands will remain protected from development through the year 2034.

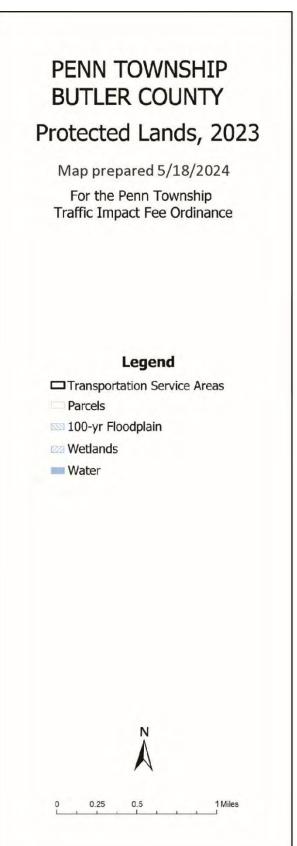
Table 3. Protected Lands, 2023

		Transportation Service Areas										
	NW	NE	W	E	sw	SE	Total					
100-yer Floodplain (acres)	121	24	-	123	17	53	338					
Wetlands (acres)	27	19	22	42	34	50	193					
Total (acres) by TSA	135	45	27	154	52	110	524					
% of TSA/Township Total	7%	3%	1%	5%	2%	3%	3%					

Source: Southwestern Pennsylvania Commission; U.S. Fish and Wildlife Service, National Wetlands Inventory

MAP B. Protected Lands, 2023





Lands Unavailable for Future Development

Table 4 presents the total land acreage that is assumed to be unavailable for future development by TSA and Townshipwide. These lands are assumed unavailable for future development due to existing developed conditions or floodplain/wetland protections.

Across the township, 4,919 acres or 32 percent of all lands are assumed to be unavailable for future development through 2034. Percentages of land unavailable for future development by TSA range from 23 percent in the NW TSA (i.e., least developed due in part to topographic constraints and drainage patterns) to 52 percent in the W TSA (most developed and fewest floodplain/wetland features). Across the township, 32 percent of lands are assumed to be unavailable for future development through 2034.

These lands are shown in gray on Map D.

Table 4. Lands Unavailable for Future Development

		Transportation Service Areas										
	NW	NE	W	E	SW	SE	Total					
Developed Lands (acres)	326	483	1,119	705	807	1,019	4,459					
Protected Lands (acres)	135	45	27	154	52	110	524					
Total Lands Unavailable for Future Development (acres)	428	521	1,141	835	863	1,131	4,919					
% of TSA	23%	29%	52%	25%	32%	31%	32%					

Land Use Management through Zoning

The Penn Township Zoning Ordinance, adopted in 1962 and updated in 2017, establishes how lands in the township may be used or developed to manage development and its impacts on the community. It permits land uses by type and intensity; uses not expressly permitted are interpreted as prohibited. Note: While the Penn Township Zoning Ordinance assigns land use permissions to each parcel, actual future use and development type and intensity on any parcel is determined by the landowner.

The zoning ordinance defines six zoning districts and the land uses permitted, use intensities, and minimum lot dimensions within each district.

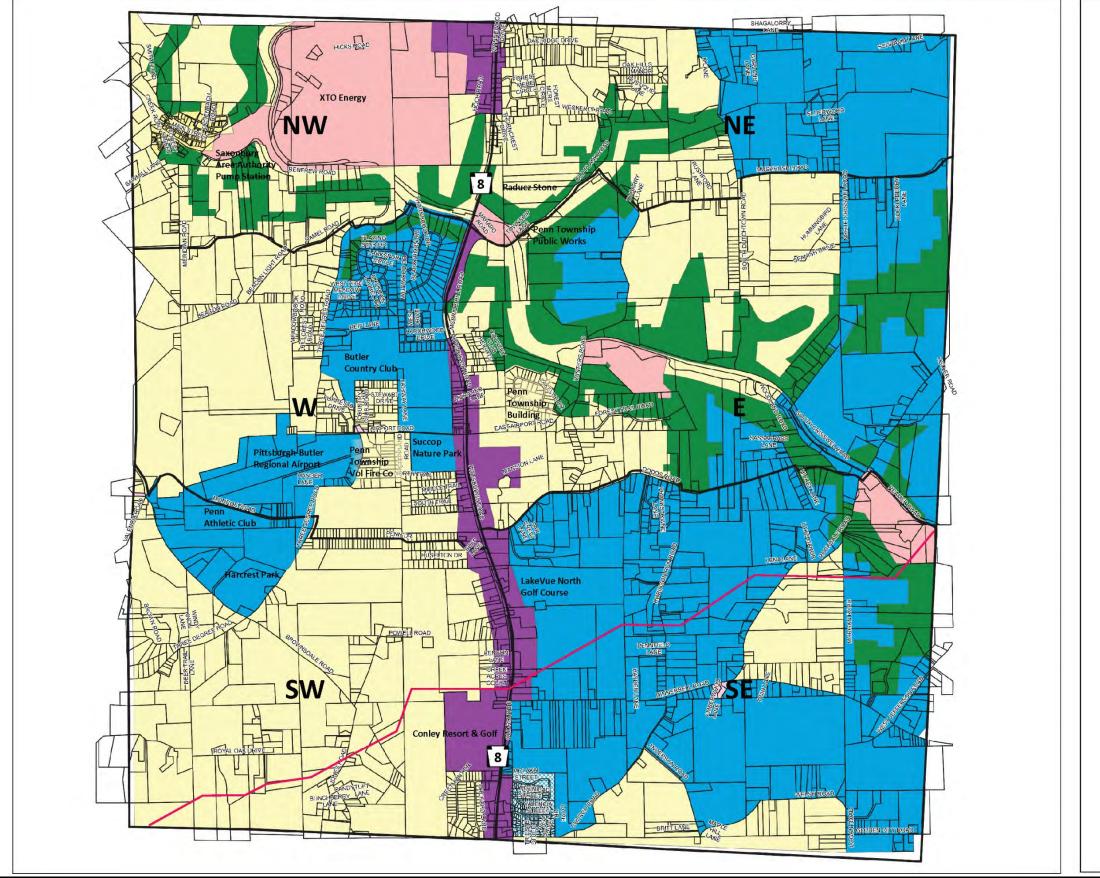
- **C1 Neighborhood Commercial**, which promote small-scale commercial uses on lots of at least one acre
- **C2 Highway Commercial** for auto-oriented commercial uses on lots of at least one acre, or two acres when the use is conditioned and involves new construction.
- M Planning Light Industrial, which is the most flexible of the township's district, permitting
 establishments engaged in the indoor manufacturing, assembly, fabrication, packaging, or other
 processing of finished products or parts, primarily from previously prepared materials, or the
 indoor provision of industrial services, where there are few external effects across property
 lines, as well as many agricultural, commercial, and public-supporting uses; minimum lot size is
 two acres.
- **R1 One Family Residential**, which is intended to accommodate residential uses on lots of at least one acre without public water/sewer utilities and lots of 25,000 sf where public utilities are provided, and small-scale agricultural and recreational uses on lots of at least five acres.
- **RE Residential Estate**, which is intended to accommodate residential uses on lots of at least one acre, and small-scale agricultural and recreational uses on lots of at least five acres.
- **S Conservancy**, which is designated along Thorn Creek and restricts uses to agriculture at a minimum lot size of five acres, single-family dwellings at a minimum lot size of 2 acres, as well as recreation, schools and churches.

Four overlay districts or overlay zones define provisions in addition to those of the underlying district.

- OZ1 Overlay Zone Renfrew and OZ2 Overlay Zone Port O' Call, which allow for expansion and development of pre-existing structures as well as new construction per the underlying R1 and RE districts, respectively.
- **Airport Overlay District**, which restricts the height of structures and objects in the three-dimensional flightpath to and from the airport in the underlying R1 and RE zoning districts.
- Traditional Neighborhood Development (TND) Overlay District, which allows a mix of residential and commercial uses in a pedestrian-oriented master planned development in the C2, R1, and RE zoning districts.

Map C shows the zoning district designation for all lands in the township.

MAP C. Zoning Map



PENN TOWNSHIP BUTLER COUNTY

Zoning Map, 2023

Map prepared 5/18/2024

For the Penn Township
Traffic Impact Fee Ordinance

Legend

- □ Parcels
- ☐ Transportation Service Areas
- Powerline Right-Of-Way (approximate)

Zoning Districts

- C1 Neighborhood Commercial
- C2 Highway Commercial
- M Planned Light Industrial
- OZ1 Overlay Zone Renfrew
- R1 One Family Residential
- RE Residential Estate
- S Conservancy

A

0 0.25 0.5 1 Miles

Assumed Future Land Use Condition in 2034

Significant Developable Acreage

As stated above, Penn Township assumes that the existing developed land use pattern, as shown on **Map A**, will remain without any significant change in land use intensity through the year 2034. Additionally, floodplain designations and the wetland inventory classification are expected to protect lands shown in **Map B** from development.

The future of the remaining acreage—in fact, the majority of lands in five of the six TSAs—is the core subject of the land use assumptions report. Significant portions of the township are expected to continue in agricultural use, woodland or forest cover, or other open space use due to site and access constraints; for example, topography will constrain development locations and intensities and powerline easements tend to discourage residential development.

Significant development potential through 2034 is limited to property owners who have the means to develop new uses on their land or who sell their land to others with similar development intentions.

For the purposes of identifying significant developable acreage, the parcel and land use/land cover pattern was reviewed. All parcels zoned for commercial or industrial use and generally absent of existing development or structures were classified as significant developable acreage. Parcels zoned for residential use, greater than 10 acres in size, and generally absent of existing development or structures were also classified as significant developable acreage.

Table 5 presents the acreage of significant developable parcels by zoning district and by TSA; there are no significant developable neighborhood commercial parcels. **Map D** shows the significant developable lots by zoning district as well as developed land acres (in gray) and protected land acres (in black).

Table 5. Significant Developable Parcels by Zoning District by TSA

Code	District Name (cores)		Transportation Service Areas								
	District Name (acres)	NW	NE	W	E	sw	SE	Total			
C1	Neighborhood Commercial	0	0	0	0	0	0	0			
C2	Highway Commercial	1	0	1	0	1	0	3			
М	Planned Light Industrial	2	0	0	0	0	0	2			
R1	One Family Residential	0	0	1	2	8	0	11			
RE	Residential Estate	0	2	3	1 + 1 partial lot	2	5	13			
S	Conservancy	0	0	0	1 partial lot	0	0	1			

Table 6 presents the total acreage of the three significant highway commercial parcels, two industrial parcels, and 25 significant residential parcels. **Table 6** and **Map D** indicate the following distribution of significant developable acreage:

- 56 acres in the highway commercial district; these acres span one 41-acre parcel in the northwestern (NW) TSA and one smaller parcel (<10 acres) in each of the western (W) and southwestern (SW) TSAs.
- 133 acres spanning two parcels (46 acres and 87 acres) in the planned light industrial district, and located in the northwestern (NW) TSA.
- 546 acres spanning 11 parcels, ranging in size from 19 acres to 136 acres, in the one family residential district; these parcels are in the western (W), eastern (E), and southwestern (SW) TSAs.
- 734 acres spanning 14 parcels, ranging in size from 11 acres to 148 acres, in the residential
 estate district; these parcels are located in all of the transportation service areas except for the
 northwestern (NW) TSA.
- One 18-acre parcel in the eastern (E) TSA spans two districts with approximately 3 acres in the Residential Estate district and 15 acres Conservancy district.

Table 6. Significant Developable Acreage by Zoning District by TSA

Code	Zoning District		Transportation Service Areas									
Code	(acres)	NW	NE	W	E	SW	SE	Total				
C2	Highway Commercial	41	0	9	0	6	0	56				
М	Planned Light Industrial	133	0	0	0	0	0	133				
R1	One Family Residential	0	0	33	99	414	0	546				
RE	Residential Estate	0	159	57	86	69	348	719				
S	Conservancy	0	0	0	15	0	0	15				

Potential Residential Units

These significant developable lands represent the potential for a wide range of new residential units under conventional development scenarios—without or with public water and public sewer—and under a planned residential development overlay scenario.

A factor of 0.73 was used to estimate the portion of each parcel available for residential lots, i.e., units, assuming 27 percent of each parcel would be used for streets, stormwater, and other public-serving infrastructure.

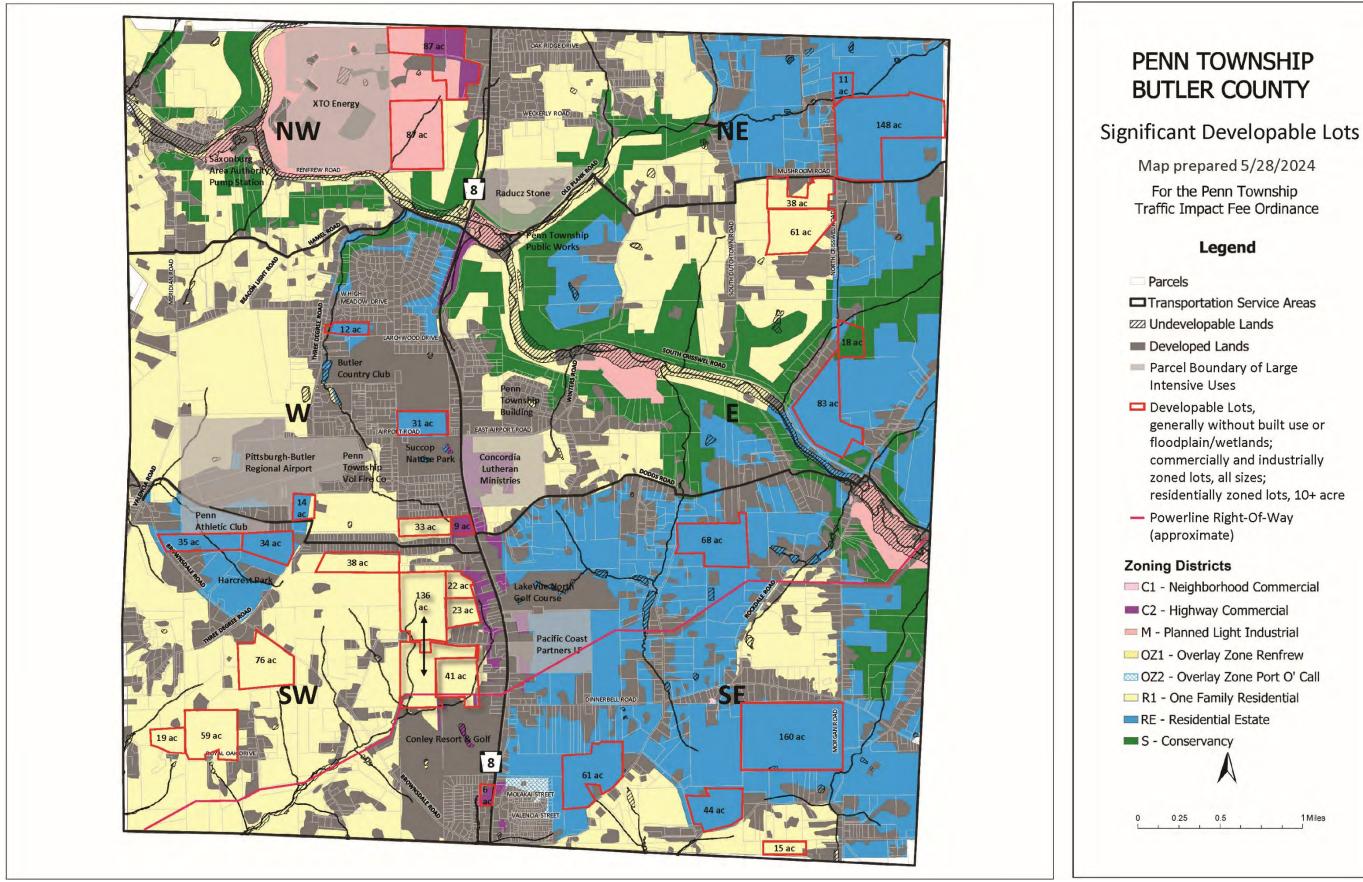
Under conventional development, the significant developable residential parcels could yield 397 units to 692 units in the R1 One-Family district, 523 units in the RE Residential Estate district and 5 units in the S Conservancy district, for a total range of 925 units to 1,220 units.

Under a planned residential development scenario for parcels 25 acres and larger, the significant developable residential parcels could yield 2,984 in the R1 One-Family district and 982 units in the RE Residential Estate district. Combined with the 5 potential units in the S Conservancy District, this yields a potential for 3,971 units.

Table 7. Potential Residential Units from Significant Developable Lots under Conventional and Planned Residential Development Scenarios

Code	Potential Residential Units		Trans	portati	ion Service	e Areas		Total
Code	Potential Residential Units	NW	NE	w	Е	sw	SE	TOTAL
R1	Conventional Development, no public water or public sewer	0	0	24	72	301	0	397
R1	Conventional Development with public water and public sewer	0	0	42	125	525	0	692
R1	Planned Residential Development Units with public water and public sewer	0	0	192	576	2,217	0	2,984
RE	Conventional Development	0	116	41	63	50	253	523
RE	Planned Residential Development Units with public water and public sewer	0	231	45	121	100	484	982
S	Conventional Development	0	0	0	5	0	0	5

MAP D. Significant Developable Lots by Zoning District



Approved and Pending Development

As of early May 2024, there are no approved unbuilt development plans or pending development proposals in the township.

Anticipated Development

The Township anticipates that some new development will be proposed and approved by the horizon year 2034 based on recent real estate sales and land development inquiries for parcels are located along the Route 8 corridor.

Table 8 lists parcels that are anticipated to be proposed for development in the near future and estimates the number of dwelling units and projected residents, as applicable. **Map E** shows the parcel locations of anticipated future development.

Five parcels are anticipated for residential development; these parcels are expected to yield 284 new dwelling units, and once occupied, these will house 284 households and more than 660 new residents—and 13 percent increase in households and residents over figures reported for Penn Township in the 2022 American Community Survey. If public water and public sewer are extended to serve these parcels, the number of dwelling units could exceed 800, housing more than 900 residents.

One parcel is anticipated to be requested for rezoning from R1 One Family Residential to Industrial and proposed for industrial development, with a single dwelling unit. The parcel includes lands designated with the 100-year floodplain and potential wetlands, resulting in a smaller developable acreage at this site.

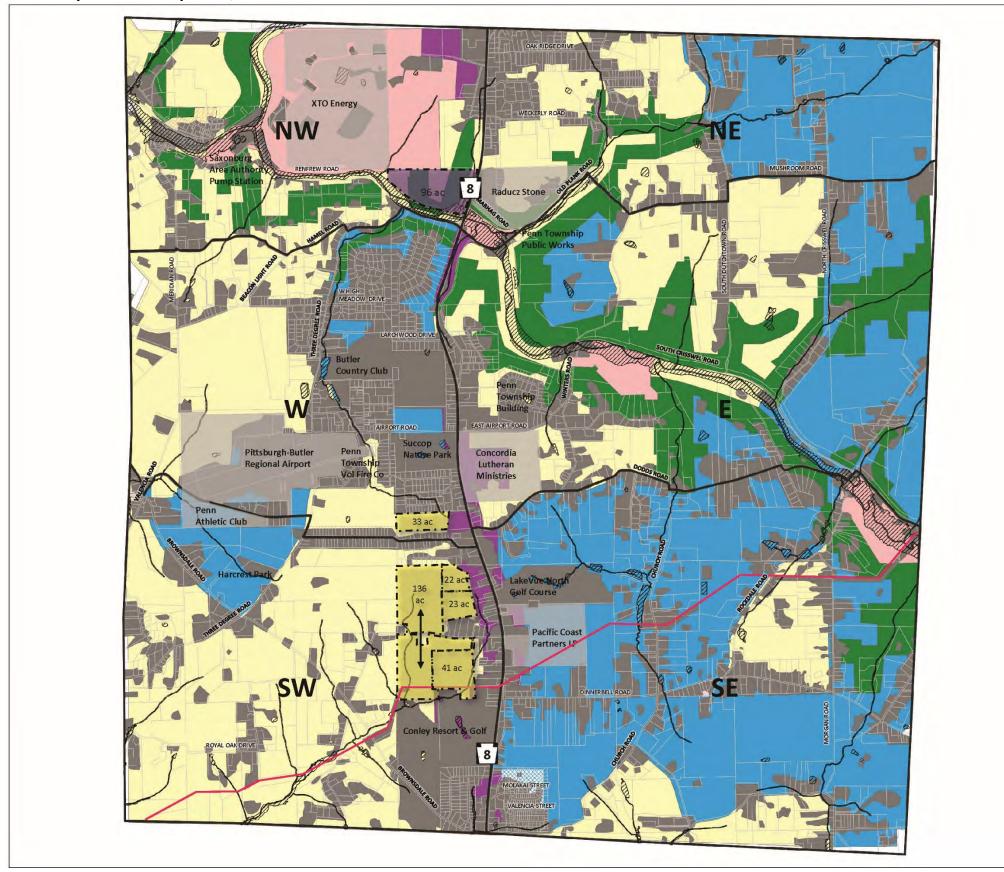
Anticipated development and occupancy is not expected to spur an increase in public/community serving lands or facilities.

Table 8. Anticipated Development, 2035

Parcel Owner	Parcel Number Address	Lot Size (acres)	TSA	Existing Use	Zoning District	Anticipated Developed Use	Anticipated Number of Dwelling Units	Projected Residents (2.35 Persons/ Household)
Anticipated I	Residential Developm	ent						
Smith Nell M Tr	270-2F96-35-0000	33	W	Woodland	R1 One Family Residential	Single-family Residential	24 dwelling units w/o public water or public sewer; maximum of 192 units under PRD w/ public water and public sewer	56
Powell Wilbert C Jr Trs Et Al	270-2F94-4-0000 151 POWELL RD	136	SW	Agriculture, Woodland	R1 One Family Residential	Single-family Residential	200 dwelling units w/o public water or public sewer to 300 dwelling units w/ water/sewer; maximum range of 99 units w/o public water or public sewer to 791 units under PRD w/ public water/public sewer	470-705
Scruggs Jeremy & Erica	270-2F94-5-0000 530 PITTSBURGH RD	22	SW	Woodland	R1 One Family Residential	Single-family Residential	15 dwelling units w/o public water or public sewer; maximum of 127 dwelling units with public water and public sewer	35
Scruggs Jeremy & Erica	270-2F94-6-0000 PITTSBURGH RD	23	SW	Woodland	R1 One Family Residential	Single-family Residential	16 dwelling units w/o public water or public sewer; maximum of 133 dwelling units with public water and public sewer	37
Walters Carolyn A	270-2F94-13-0000 121 Powell Road	41	SW	Agriculture	R1 One Family Residential	Single-family Residential	29 dwelling units w/o public water or public sewer; maximum of 51 dwelling units with public water and public sewer	68

Parcel Owner	Parcel Number Address	Lot Size (acres)	TSA	Existing Use	Zoning District	Anticipated Developed Use	Anticipated Number of Dwelling Units	Projected Residents (2.35 Persons/ Household)
Total Residen	tial	255					284 dwelling units;	666-901
		acres					maximum 803 dwelling units	residents
Anticipated In	ndustrial Developme	nt						
GEIBEL	270-2F98-11-0000	96	NW	Woodland,	R1 One	(Rezoning)	1 dwelling unit	2
INCOME TR				Floodplain,	Family	Industrial and		
ET AL				Wetlands	Residential	Residential		
Total Industri	al	96					1 dwelling unit	2
		acres						
Total		351			_		285 dwelling units;	668-903
		acres					maximum 804 dwelling units	residents

MAP E. Anticipated Development, 2024-2034



PENN TOWNSHIP **BUTLER COUNTY** Anticipated Development, 2023 Map prepared 5/18/2024 For the Penn Township Traffic Impact Fee Ordinance Legend Parcels ☐ Transportation Service Areas Undevelopable Lands Developed Lands Parcel Boundary of Large Intensive Uses — Powerline Right-Of-Way (approximate)

- C1 Neighborhood Commercial
- C2 Highway Commercial
- M Planned Light Industrial
- OZ1 Overlay Zone Renfrew
- SSS OZ2 Overlay Zone Port O' Call
- R1 One Family Residential
- RE Residential Estate
- S Conservancy
- **₹** Anticipated Residential Development
- Anticipated Industrial Development



0.25 0.5 1 Mile

Table 9. Anticipated Distribution of New Residential, Commercial, and Industrial Land Use, 2034

Developed Uses		Trans	portatio	n Service	Areas		Tatal
(acres)	NW	NE	W	E	sw	SE	Total
Residential							
Existing Residential Lands	241	418	653	673	527	827	3,340
New Residential Lands by 2034	0	0	33	0	222	0	255
Future Residential Total	241	418	686	673	749	827	3,595
Commercial							
Existing Commercial Lands	42	22	37	14	49	90	254
Future Commercial Total	No ch	254					
Industrial							
Existing Industrial	28	3	2	5	1	4	43
New Industrial Lands by 2034	133	0	0	0	0	0	133
Future Industrial Total	261	3	2	5	1	4	176
Public/Utility							
Existing Public/Community-Serving Lands	12	4	214	12	2	0	244
Future Public/Community-Serving Total		No char	nge in Pul	olic/Servi	ng Lands		244