IN THE COMMONWEALTH COURT OF PENNSYLVANIA

No. 464 M.D. 2021

Carol Ann Carter; Monica Parrilla; Rebecca Poyourow; William Tung; Roseanne Milazzo; Burt Siegel; Susan Cassanelli; Lee Cassanelli; Lynn Wachman; Michael Guttman; Maya Fonkeu; Brady Hill; Mary Ellen Bachunis; Tom DeWall; Stephanie McNulty; and Janet Temin,

Petitioners,

vs.

Leigh Chapman, in Her Official Capacity as the Acting Secretary of the Commonwealth of Pennsylvania; and Jessica Mathis, in Her Official Capacity as Director of the Bureau of Election Services and Notaries,

Respondents.

No. 465 M.D. 2021

Philip T. Gressman; Ron Y. Donagi; Kristopher R. Tapp; Pamela A. Gorkin; David P. Marsh; James L. Rosenberger; Amy Myers; Eugene Boman; Gary Gordon; Liz McMahon; Timothy G. Feeman; and Garth Isaak

Petitioners,

vs.

Leigh Chapman, in her Official Capacity as the Acting Secretary of the Commonwealth of Pennsylvania ; and Jessica Mathis, in Her Official Capacity as Director of the Bureau of Election Services and Notaries,

Respondents.

PRE-HEARING OPENING BRIEF OF SENATE REPUBLICAN INTERVENORS JAKE CORMAN, PRESIDENT PRO TEMPORE OF THE PENNSYLVANIA SENATE, AND KIM WARD, MAJORITY LEADER OF THE PENNSYLVANIA SENATE

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Pursuant to the Court's January 14, 2022 order, Intervenors Jake Corman, President *Pro Tempore* of the Pennsylvania Senate, and Kim Ward, Majority Leader of the Pennsylvania Senate (together, "Senate Republican Intervenors"), jointly submit this pre-hearing opening brief.

I. INTRODUCTION

Under federal law, based on the results of each decennial Census, each state is assigned and must draw a particular number of congressional districts. U.S. Const. art. I, § 4; 2 U.S.C. § 2a. Under Article I, Section 4 of the United States Constitution, congressional "redistricting is a legislative function, to be performed in accordance with the State's prescriptions for lawmaking." *Arizona State Legislature v. Arizona Indep. Redistricting Comm'n*, 576 U.S. 787, 808 (2015). But when the state's legislature and governor do not reach an agreement on a map, a court may be "left with the unwelcome obligation of performing in the legislature's stead, while lacking the political authoritativeness that the legislature can bring to the task." *Connor v. Finch*, 431 U.S. 407, 415 (1977). In whatever manner that it is adopted – through a legislature or a court – a redistricting map must comply with "traditional," constitutionally-derived criteria, as well as statutory requirements that pertain to voting rights. Beyond these factors, legislatures, as they engage in redistricting, may (and should) take into account a variety of other variables that relate to state policies and interests. It follows that, if a court is required to adopt a redistricting plan for a

state and is assessing which one to adopt, it should give special weight to any plan that has moved through the state's legislative process, so long as that plan meets the background redistricting requirements. *See, e.g.*, *Donnelly v. Meskill*, 345 F. Supp. 962, 965 (D. Conn. 1972) (faced with obligation to select congressional redistricting map after state's governor vetoed legislature's map, court adopted the legislature's proposed plan, explaining that "[t]he legislative adoption of Public Act 807 tips the scales in favor of the plan" and observing that the plan had "the added advantage that it is basically the plan adopted by the legislature").

II.   CONGRESSIONAL REDISTRICTING REQUIREMENTS

A.   Traditional, Constitutionally-Derived Criteria

In *League of Women Voters v. Commonwealth*, 178 A.3d 737 (Pa. 2018), the Pennsylvania Supreme Court applied Article I, Section 5 of Pennsylvania Constitution, the "Free and Equal Elections Clause," to the Pennsylvania Congressional Redistricting Act of 2011. In doing so, it determined that, under the Free and Equal Elections Clause, the criteria in Article II, Section 16 of the Pennsylvania Constitution, which apply to the creation of state legislative districts, likewise apply to congressional redistricting. The Court therefore concluded that, to pass constitutional muster, congressional redistricting maps must meet three traditional criteria: (1) compact and contiguous territory, (2) population equality as nearly as practicable, and (3) respect for the boundaries of political subdivisions and

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dividing as few of those subdivisions as possible. *League of Women Voters*, 178 A.3d at 816.

1.   Compact and Contiguous Territory

A congressional district must be compact and contiguous. The compactness of a district "must be evaluated objectively and with allowance for the elements of unavoidable noncompactness." *Com ex rel. Specter v. Levin*, 293 A.2d 15, 24 (Pa. 1972), *abrogated on other grounds by Holt v. 2011 Legislative Reapportionment Comm'n*, 38 A.3d 711, 752 (Pa. 2012) ("*Holt I*"). As the Pennsylvania Supreme Court stated in *League of Women Voters*, "odd shapes and seemingly arbitrary political subdivision splits are not themselves sufficient to conclude" that a redistricting plan "is not predicated on the traditional redistricting factors." *League of Women Voters*, 178 A.3d at 819; *see also Specter*, 293 A.2d at 24 (stating that "a determination that a reapportionment plan must fail for lack of compactness cannot be made merely by a glance at an electoral map and a determination that the shape of a particular district is not aesthetically pleasing").

As for contiguity, the Pennsylvania Supreme Court has stated that a contiguous district is one in which "a person can go from any point within the district to any other point (within the district) without leaving the district, or one in which no part of the district is wholly physically separate from any other part." *Holt v.*

2011 Legislative Reapportionment Comm'n, 67 A.3d 1211, 1242 (Pa. 2013) ("*Holt II*") (quoting *Specter*, 293 A.2d at 23).

2. Population Equality As Nearly As Practicable

For purposes of a congressional redistricting plan, the representational districts must be equal in population as nearly as practicable. This requirement emanates from both Pennsylvania and federal constitutional law. *Holt I*, 38 A.3d 711 (noting that Article II, Section 16's population equality requirement "exists as an independent command of federal constitutional law, including decisional law which changes and evolves"). The federal constitutional overlay establishes a "high standard of justice and common sense" in requiring "equal representation for equal numbers of people." *Karcher v. Daggett*, 462 U.S. 725, 730 (1983) (quoting *Wesberry v. Sanders*, 376 U.S. 1, 18 (1964)). Although "[p]recise mathematical equality . . . may be impossible to achieve in an imperfect world," the U.S. Supreme Court has interpreted the concept of "as nearly as practicable" to mean that deviations from exact population equality are permitted only when they are "unavoidable despite a good-faith effort to achieve absolute equality, or for which justification is shown." *Id.* (quoting *Kirkpatrick v. Preisler*, 394 U.S. 526, 531 (1969)).

3. Respect for Political Subdivision Boundaries

A redistricting plan should be "attentive to the concerns of historically unified subdivisions, such as County seats." *Holt I*, 38 A.3d at 758. The Pennsylvania Supreme Court, however, "recognize[s] that the Pennsylvania Constitution permits absolutely necessary political subdivision splits, and that some divisions are inevitable." *Id.* For instance, subdivision splits can be "made absolutely necessary" by "competing constitutional, demographic, and geographic factors[.]" *Holt II*, 67 A.3d at 1240. Additionally, "redistricting efforts may properly seek to preserve communities of interest which may not dovetail precisely with the static lines of political subdivisions." *Id.* at 1241.

B. Additional Factors

1. Section 2 of the Voting Rights Act

Section 2 of the Voting Rights Act of 1965 ("VRA") prohibits the states and their instrumentalities and subdivisions from employing any "voting or standard, practice, or procedure . . . in a manner which results in a denial or abridgement of the right of any citizen of the United States to vote on account of race or color" or language-minority status. 52 U.S.C. § 10301(a). "A violation" of this provision is established if, based on the totality of circumstances, it is shown that "the political processes leading to nomination or election in the State or political subdivision are not equally open to participation by members of a class of citizens [*i.e.,* citizens of a

given race, color, or language minority] protected by [the VRA] in that its members have less opportunity than other members of the electorate to participate in the political process and to elect representatives of their choice. *Id.* at § 10301(b). Under Section 2, a plaintiff need not "prove the discriminatory intent of state or local governments in adopting or maintaining the challenged electoral mechanism." *Thornburg v. Gingles*, 478 U.S. 30, 71 (1986). A state, therefore, may be required to affirmatively take action in order to avoid a Section 2 violation.

In this regard, in order to prevail on a Section 2 claim, a plaintiff must first prove that the three "*Gingles* preconditions" are satisfied: (1) the minority group in question must be sufficiently compact to compose a majority in one or more single-member representational districts; (2) the minority group must be politically cohesive; and (3) the majority must vote sufficiently as a bloc to enable it to usually defeat the preferred candidates of the minority group. *Jenkins v. Manning*, 116 F.3d 685, 690–91 (3d Cir. 1997) (discussing *Gingles*, 478 U.S. at 50–51).

The U.S. Supreme Court has indicated that, for purposes of the first precondition, "a party asserting § 2 liability must show by a preponderance of the evidence that the minority population in the potential election district is greater than 50 percent." *Bartlett v. Strickland*, 556 U.S. 1, 19–20 (2009) (plurality opinion). Courts have also indicated that states cannot be required to draw minority "crossover" districts, *i.e.*, districts that are composed of less than a strict 50% voting-

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age majority population of the relevant minority group. *Id.* at 22–23. *See also, e.g.,*
United States v. City of Euclid, 580 F. Supp. 2d 584, 594-95 (N.D. Ohio 2008)
(defining the first *Gingles* precondition in terms of voting-age majority).

If the threshold *Gingles* preconditions are satisfied, the analysis turns on the
totality of the circumstances, which involves a qualitative review of numerous
factors. *Jenkins*, 116 F.3d at 690. The factors include "the extent of any history of
official discrimination," "the extent to which members of the minority group in the
state or political subdivision bear the effects of discrimination in such areas as
education, employment and health," and "the extent to which members of the
minority group have been elected to public office in the jurisdiction." *Id.* "[T]here
is no magical number of factors which must be shown to exist." *Id.*

2. The Fourteenth Amendment and Racial Gerrymandering

The Fourteenth Amended prohibits "the deliberate segregation of voters into
separate districts on the basis of race." *Shaw v. Reno*, 509 U.S. 630, 641 (1993)
(*Shaw I*). The U.S. Supreme Court has developed a two-part test for evaluating
"racial gerrymandering" claims. First, the plaintiff must show "that race was the
predominant factor motivating the legislature's decision to place a significant
number of voters within or without a particular district." *Bethune-Hill v. Virginia*
State Bd. of Elections, 137 S. Ct. 788, 797 (2017) (citation omitted). The question,
in this regard, is whether "the legislature subordinated traditional race-neutral

districting principles, including but not limited to compactness, contiguity, and respect for political subdivisions or communities defined by actual shared interests, to racial considerations." *Miller v. Johnson*, 515 U.S. 900, 916 (1995). "Where a challenger succeeds in establishing racial predominance, the burden shifts to the State to 'demonstrate that its districting legislation is narrowly tailored to achieve a compelling interest.'" *Bethune-Hill*, 137 S. Ct. at 800-01 (citation omitted).

3. Political Factors

In *League of Women Voters*, the Pennsylvania Supreme Court acknowledged that, under the Commonwealth's Constitution, factors like "protection of incumbents" and "the maintenance of the political balance which existed after the prior reapportionment" are allowed to play a role in the creation of a redistricting plan. 178 A.3d at 817. But the court also concluded that, under the Free and Equal Elections Clause, those factors must be "wholly subordinate" to the "neutral [redistricting] criteria of compactness, contiguity, minimization of the division of political subdivisions, and maintenance of population equality among . . . districts." *Id.* The Court then stated (in *dicta*) that, when a redistricting body uses the subordinate factors as part of creating a redistricting plan, it may not "unfairly dilute the power of a particular group's vote for a…representative." *Id.* It did not attempt to define the contours of "unfair" vote-dilution.

III. APPLICATION OF REDISTRICTING REQUIREMENTS TO THE LEGISLATIVE PLAN

In tandem with this brief, and in accordance with Paragraph 3 in the January 14, 2022 order, the Senate Republican Intervenors are providing this Court with a "proposed 17-district congressional redistricting plan" that is "consistent with the results of the 2020 Census." In particular, the Senate Republican Intervenors are providing this Court with the plan that is embodied in HB 2146 (the "Legislative Plan"), which uses the Legislative Reapportionment Commission's dataset #1. On January 12, 2022, the Pennsylvania House of Representatives passed HB 2416 and referred it to the Senate for consideration. The bill was referred to the Senate State Government Committee, which passed it on January 12, 2022. The Senate gave HB 2146 first consideration on January 18, 2022 and second consideration on January 19, 2022. The Senate is scheduled to be in session on January 24, 25, and 26, 2022, and HB 2146 is eligible for third consideration and final passage on any of those dates, or on any future legislative session that may be convened.

This brief is also accompanied by an expert report in which John Memmi, Ph.D, assesses the Legislative Plan.

Given what is evident on the face of the Legislative Plan and for the reasons that Dr. Memmi explains in his expert report, the plan satisfies all of the applicable redistricting requirements that are described above.

IV. THE LEGISLATIVE PLAN IS ENTITLED TO DEFERENCE

As the U.S. Supreme Court has stressed, under Article I, Section 4 of the U.S. Constitution, congressional "redistricting is a legislative function, to be performed in accordance with the State's prescriptions for lawmaking." *Arizona State Legislature v. Arizona Indep. Redistricting Comm'n*, 576 U.S. 787, 808 (2015); *see also League of Women Voters*, 178 A.3d at 821-22 (stating that the "primary responsibility and authority for drawing federal congressional legislative districts rests squarely with the state legislature"). Pennsylvania's legislative power (and therefore its power to engage in congressional redistricting) is vested exclusively in the General Assembly. *See* Pa. Const. art. II, § 1. Although the Court may intervene when the General Assembly and Governor do not reach an agreement on a map, there is no doubt that redistricting remains a fundamentally legislative act. The Legislative Map, which the Senate Republican Intervenors are submitting to the Court with this brief, is therefore entitled to deference and special weight as a reflection of the legislative process (given that the House has passed it and it is making its way through the Senate) and the will of the people's elected representatives.

In adopting remedial redistricting plans, courts have given special consideration to the policy judgments that are reflected in legislatively-designed maps. The Fifth Circuit, in reviewing a district court's rejection of a legislative map

in favor of a different map, described the legislative process as "the proper means toward the essentially political end of reapportionment." *Cook v. Luckett*, 735 F.2d 912, 918 (5th Cir. 1984). This "political process," the court noted, "involved just the sort of give-and-take between citizens and their elected officials that federal courts are unable to achieve." *Id.* The court further explained that federal courts must "honor state policies to the greatest extent possible when choosing among available plans or fashioning [their] own" and "when the court is presented with a legislative plan whose constitutional or statutory flaws are capable of correction by minor adjustments, *Upham* requires the court to minimize violence to those legislative policies embodied in the plan by changing it only to the extent necessary to cure its cognizable flaws." *Cook v. Luckett*, 735 F.2d 912, 918 (5th Cir. 1984) (citing *Upham v. Seamon*, 456 U.S. 37 (1982)). "In fashioning a reapportionment plan or in choosing among plans, a district court should not pre-empt the legislative task nor 'intrude upon state policy any more than necessary.'" *White v. Weiser*, 412 U.S. 783, 795 (1973) (quoting *Whitcomb v. Chavis*, 403 U.S. 124, 160 (1971)).

The decision in *Donnelly v. Meskill*, 345 F. Supp. 962 (D. Conn. 1972) helps to illustrate the point. In *Donnelly*, the court was obligated to select a congressional redistricting map for Connecticut after the state's governor vetoed the state legislature's map. The court adopted the legislature's proposed plan, explaining that "[t]he legislative adoption of Public Act 807 tips the scales in favor of the plan in

Exhibit B-1, which provides districts essentially as outlined by the legislature, with adjustments necessary to bring about virtually complete population equality." *Id.* at 965. The court recognized that the plan it adopted had "the added advantage that it is basically the plan adopted by the legislature." *Id.*

The same result is warranted here. Given that the House has passed it and it is moving through the Senate, the Legislative Map reflects a deliberative, legislative process, which involves negotiations, compromise, and policy judgments, and which the people's elected representatives are undertaking in order to memorialize and implement state policy that reflects the will of their constituents. The legislative process is one that, under both the U.S. and Pennsylvania Constitutions, is the principal and preferred method for drawing congressional districts. The Constitution does not envision that a supercomputer or individual expert witness will create a redistricting plan that will govern congressional elections for a decade. The Legislative Map, therefore, is entitled to deference from the Court in order to honor the General Assembly's constitutional prerogative to engage in redistricting.

V. CONCLUSION

For the foregoing reasons, the Senate Republican Intervenors respectfully request that the Court adopt the Legislative Map.

Dated: January 24, 2022

Respectfully submitted,

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CERTIFICATION OF COMPLIANCE

I hereby certify that this filing complies with the provisions of the *Case Records Public Access Policy of the Unified Judicial System of Pennsylvania* that require filing confidential information and documents differently than non-confidential information and documents.

/s/ Anthony R. Holtzman
Anthony R. Holtzman

CERTIFICATE OF SERVICE

I hereby certify that I am this day serving the foregoing document upon the persons and in the manner indicated below, which service satisfies the requirements of Pa.R.A.P. 121:

Service by PACFile eService as follows:

All counsel of record

Date: January 24, 2022   /s/ Anthony R. Holtzman
                                           Anthony R. Holtzman

Expert Report of John M. Memmi, Ph.D. in the Matter of *Carter v. Degraffenreid, in The Commonwealth Court of Pennsylvania*, No. 464 M.D. 2021 (Consolidated)

Congressional Redistricting Criteria Applied to Districts Under HB2146

My name is John Memmi. I am consultant in the field of redistricting. I have more than 20 years of experience with the process of drawing redistricting maps, particularly in Pennsylvania. A copy of my *curriculum vitae* is attached as Appendix A.

I was retained on behalf of Jake Corman, President Pro Tempore of the Pennsylvania Senate, and Kim Ward, Majority Leader of the Pennsylvania Senate, who are Intervenors in this matter.

I was asked to evaluate the redistricting map associated with House Bill 2146 of 2021 in relation to traditional and applicable criteria for compactness, contiguity, population equality, and maintenance of political subdivisions.

To conduct this evaluation, I used generally accepted methodologies in the field of drawing and evaluating congressional redistricting maps. I relied on numerous sources of information, which are identified herein. Key references and data sources are listed in Appendix B. I am also generally informed by a broad range of technical literature relevant to congressional redistricting, and by my education and experience. The opinions expressed in this report are stated to a reasonable degree of scientific certainty.

Based on my evaluation, I provide the following key opinions. These and additional opinions are further described in the subsequent sections of this report.

1. **Compactness**: HB2146 complies with this criterion.

2. **Contiguity**: HB2146 complies with this criterion.

3. **Population Equality**: HB2146 complies with this criterion.

4. **Maintenance of Political Subdivisions**: HB2146 complies with this criterion.

Compactness

Compactness is a measure of the geographic shape of a district. Although many such measures are available, the two most common are Polsby-Popper and Reock. Polsby-Popper evaluates irregularity in the perimeter of a district and Reock examines district area. Polsby-Popper and Reock scores range from 0 to 1, the more compact the district the greater the score.

Figure 1 offers bar charts of and descriptive statistics on compactness scores for HB2146. Inspection of the charts reveals no district with an extreme (low) score, and the nearly equal range and standard deviation for each measure support this observation.

Contiguity

Redistricting Law 2020 (NCSL, 2019, page 258) defines contiguity as the condition in which "all parts of a district are connected geographically at some point with the rest of the district." In Pennsylvania, drawing contiguous districts can be a challenge: the Pennsylvania State Data Center identifies 58 non-contiguous municipalities and 95 non-contiguous precincts (see Appendices C and D). For example, Lancaster Township, Lancaster County, comprises eight tracts, and Precinct 1, Pine Township, Mercer County, comprises nine tracts. Pennsylvania also has one non-contiguous county, Chester.

Despite these non-contiguities, HB2146 comprises 17 contiguous districts, as verified by *autoBoundEDGE*, redistricting software published by Citygate GIS.

Population Equality

The Commonwealth must comprise 12 districts with total populations of 764,865 and five districts with total populations of 764,864, for a grand total of 13,002,700 persons.

HB2146 complies with this criterion, as listed in Table 1.

Maintenance of Political Subdivisions

County and municipal governments function more efficiently when their jurisdictions are within one district. In theory, the only political subdivisions that must be split are those with total populations greater than one district. In 2020, three counties had such populations: Philadelphia (1,603,797 or 2.10 districts), Allegheny (1,250,578; 1.64), and Montgomery (856,553; 1.12).

A graphical and tabular summary of political subdivisions, both whole and split in HB2146, is given in Figure 2. The plan splits only 0.3 percent of the Commonwealth's 16,127 subdivisions.

Submitted by:

John M. Memmi

John M. Memmi

Figure 1. Compactness Scores for Congressional Districts Under HB2146

Polsby-Popper
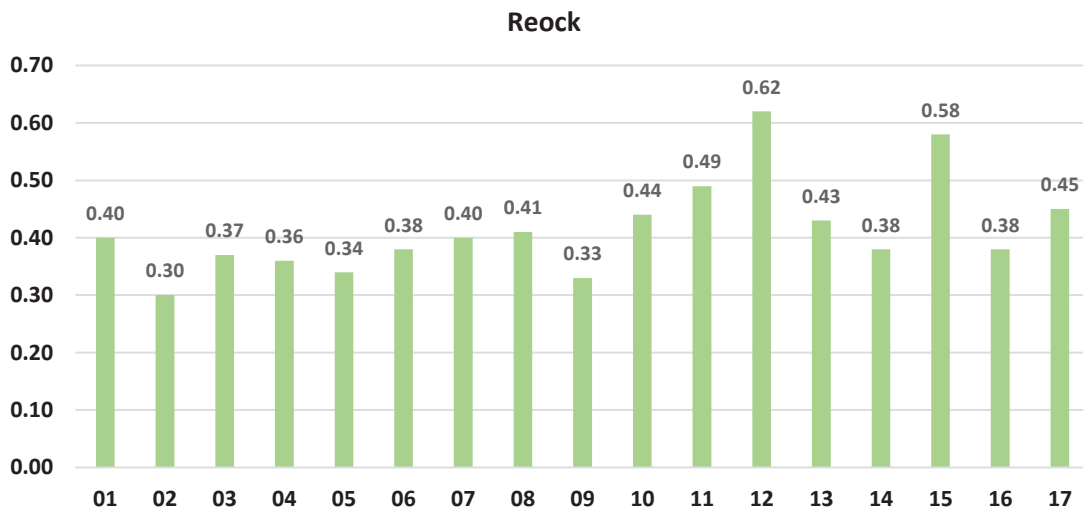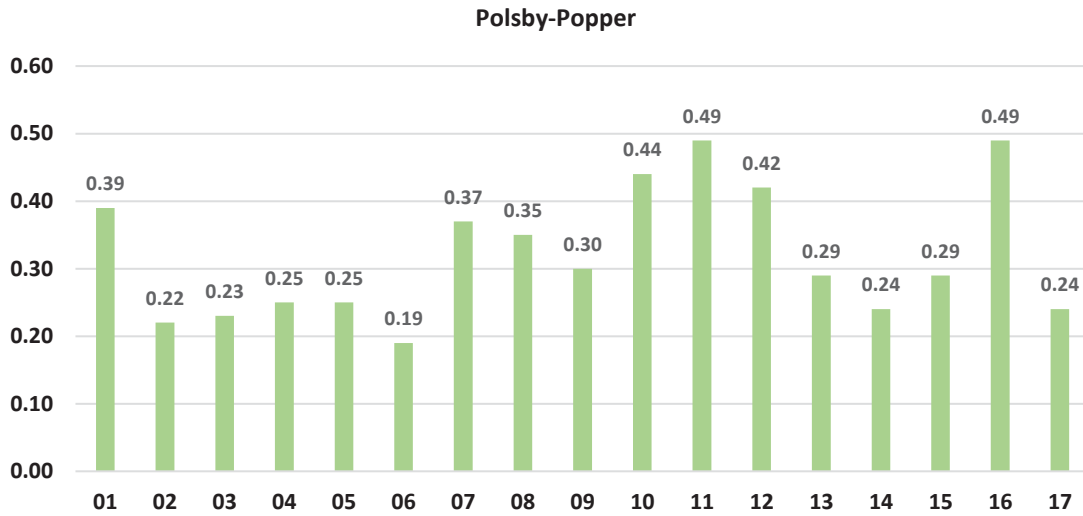
Reock

	Polsby-Popper	Reock
maximum	0.49	0.62
minimum	0.19	0.30
range	0.30	0.32
median	0.29	0.40
average	0.32	0.42
standard deviation	0.10	0.08

Figure 2. Split Political Subdivisions in Congressional Districts Under HB2146
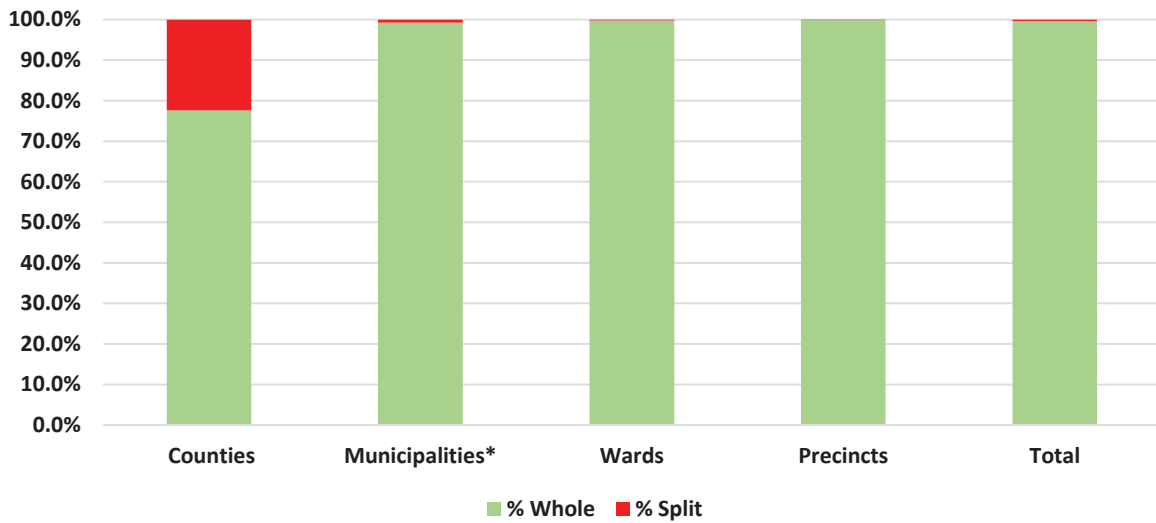
Subdivision	Total	Split	% Whole	% Split	Total Splits
Counties	67	15	77.6%	22.4%	19
Municipalities*	2,572	19	99.3%	0.7%	21
Wards	4,310	9	99.8%	0.2%	9
Precincts	9,178	9	99.9%	0.1%	9
Total	**16,127**	**52**	**99.7%**	**0.3%**	**58**

* includes 3 muncipalities that are split by county lines

Table 1. Total Population and Select Components for Congressional Districts Under HB2146

CD	Total Population	Ideal Population	Absolute Deviation	Voting Age Population							
				Total	% of Total	Hispanic %	NH White %	NH Black %	NH Asian %	NH Other %
01	764,865	764,865	0	608,600	79.6%	5.0%	82.0%	3.8%	6.3%	2.9%
02	764,865	764,865	0	596,061	77.9%	22.0%	43.0%	21.7%	9.5%	3.7%
03	764,865	764,865	0	623,430	81.5%	5.5%	31.6%	51.9%	7.2%	3.8%
04	764,865	764,865	0	602,151	78.7%	5.3%	74.3%	9.7%	7.5%	3.2%
05	764,865	764,865	0	599,534	78.4%	4.7%	67.3%	19.1%	5.9%	2.9%
06	764,865	764,865	0	586,692	76.7%	14.0%	73.7%	5.2%	4.1%	2.9%
07	764,864	764,865	-1	607,455	79.4%	16.2%	72.6%	5.2%	3.2%	2.9%
08	764,864	764,865	-1	616,620	80.6%	7.8%	81.6%	5.5%	1.9%	3.2%
09	764,864	764,865	-1	613,895	80.3%	5.8%	88.1%	2.5%	0.9%	2.6%
10	764,865	764,865	0	599,883	78.4%	7.2%	80.0%	6.8%	2.7%	3.3%
11	764,865	764,865	0	591,364	77.3%	9.7%	82.0%	3.2%	2.6%	2.6%
12	764,865	764,865	0	625,013	81.7%	1.9%	90.6%	2.5%	2.0%	3.0%
13	764,864	764,865	-1	603,809	78.9%	3.7%	86.1%	5.0%	2.1%	3.1%
14	764,865	764,865	0	623,024	81.5%	1.2%	92.5%	2.6%	0.7%	3.0%
15	764,864	764,865	-1	632,367	82.7%	2.6%	71.8%	17.3%	4.5%	3.8%
16	764,865	764,865	0	609,794	79.7%	2.1%	89.1%	4.0%	1.3%	3.5%
17	764,865	764,865	0	613,856	80.3%	1.9%	87.9%	3.9%	3.1%	3.2%
PA	**13,002,700**			**10,353,548**	**79.6%**	**6.8%**	**76.1%**	**10.0%**	**3.8%**	**3.2%**

NH: Not Hispanic or Latino

APPENDIX A TO EXPERT REPORT OF JOHN MEMMI

John M. Memmi, Ph.D.

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Redistricting Experience

Consultant   December 2017 - Present
   ♦ Providing redistricting expertise to confidential clients

Specialist   PA State Senate Republican Caucus   2000-2002 and 2009-2013
   ♦ Generated Congressional and state senatorial test plans to achieve varying goals
   ♦ Produced 100s of hypothetical plans based on the following redistricting criteria:
       • absolutely equal population
       • voting rights
       • traditional (compactness, contiguity, preservation of political units, preservation of communities of interest, preservation of district cores, incumbency protection)
       • political (strong Democrat lean, strong Republican lean, competitive, proportional)
   ♦ Compiled, queried, and generated reports on population and political data for:
       • 67 counties
       • ~2,600 municipalities
       • ~9,500 precincts
       • 325,000-420,0000 census blocks
   ♦ Supplied maps and reports to the bipartisan Legislative Reapportionment Commission
   ♦ Determined Congressional seats in response to changing population estimates
   ♦ Aided litigation as both technical advisor and fact witness

Additional Consulting Experience

Mineral Exploration: Ashton Mining, BHP, Kennecott

Information Technology: USDA Forest Service

Education

Doctor of Philosophy, Geological Sciences, The Ohio State University

APPENDIX B TO EXPERT REPORT OF JOHN MEMMI

References

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autoBoundEDGE, 2020, Citygate GIS, https://citygategis.com/products/autoboundEDGE/

Non-Contigous MCDs Present in Final 2011 Submission

Total: 58
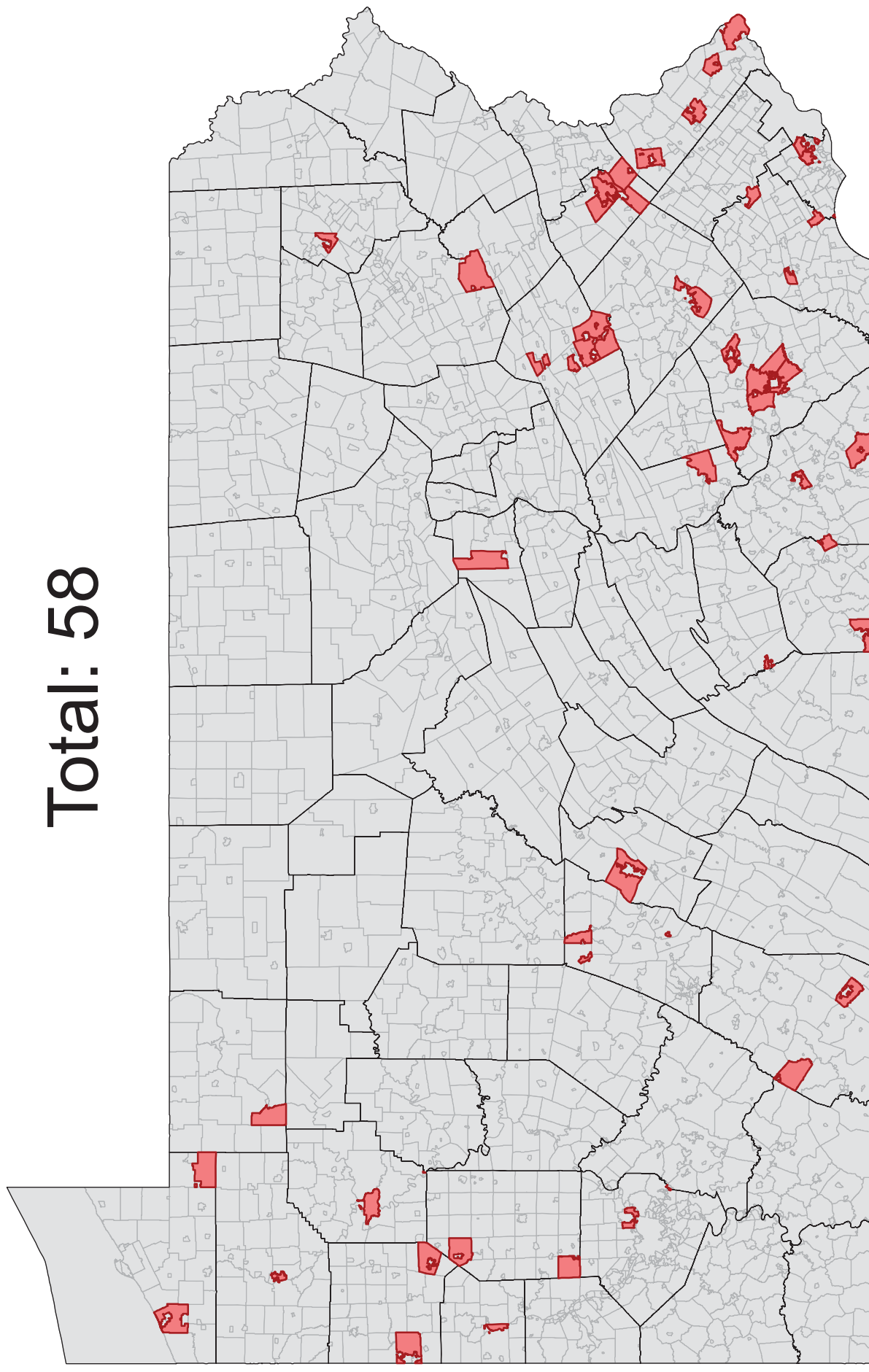
Berwick township

Adams County

Berwick township
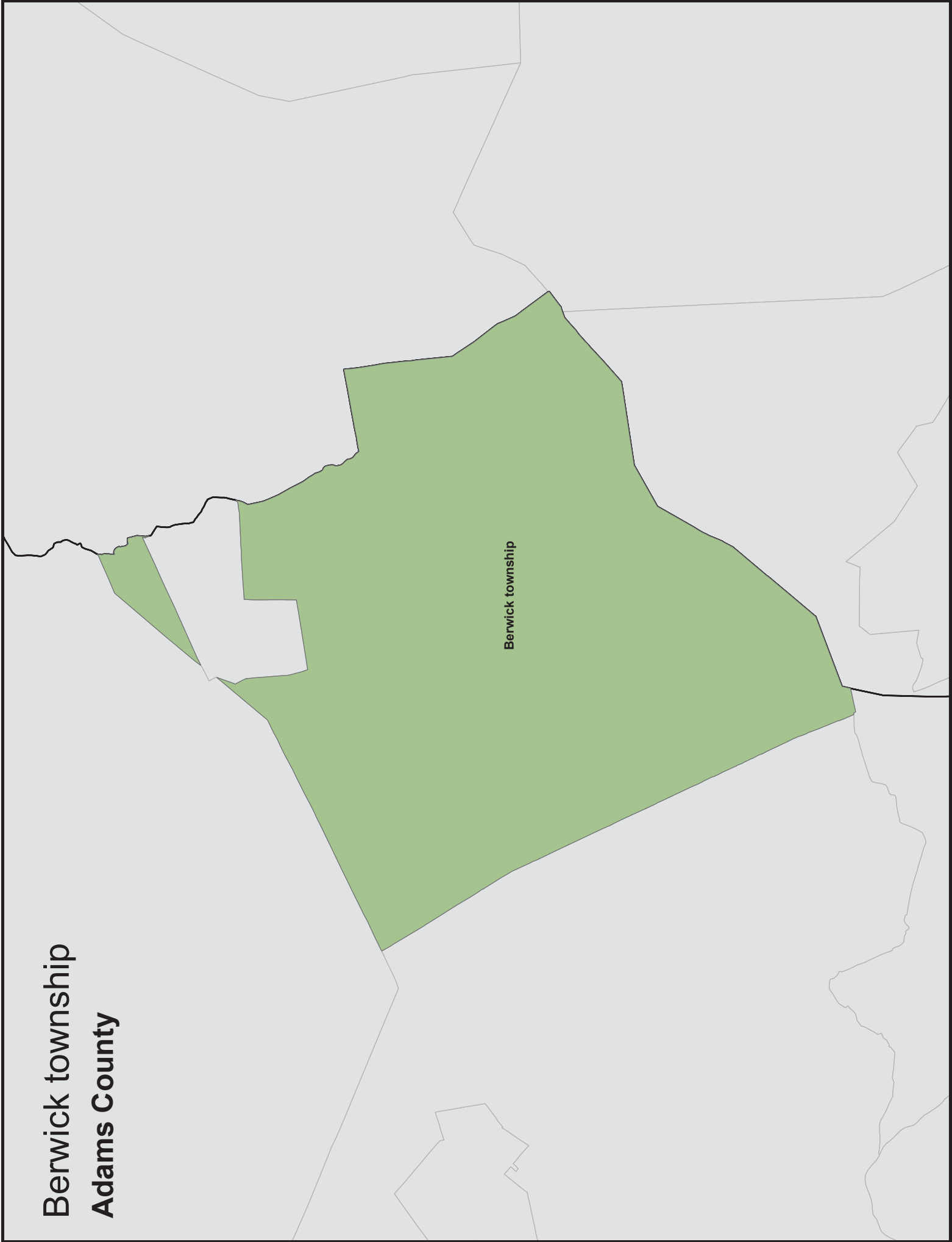
Liberty township
Adams County

Liberty township

Liberty township

O'Hara township
Allegheny County

O'Hara township

O'Hara township
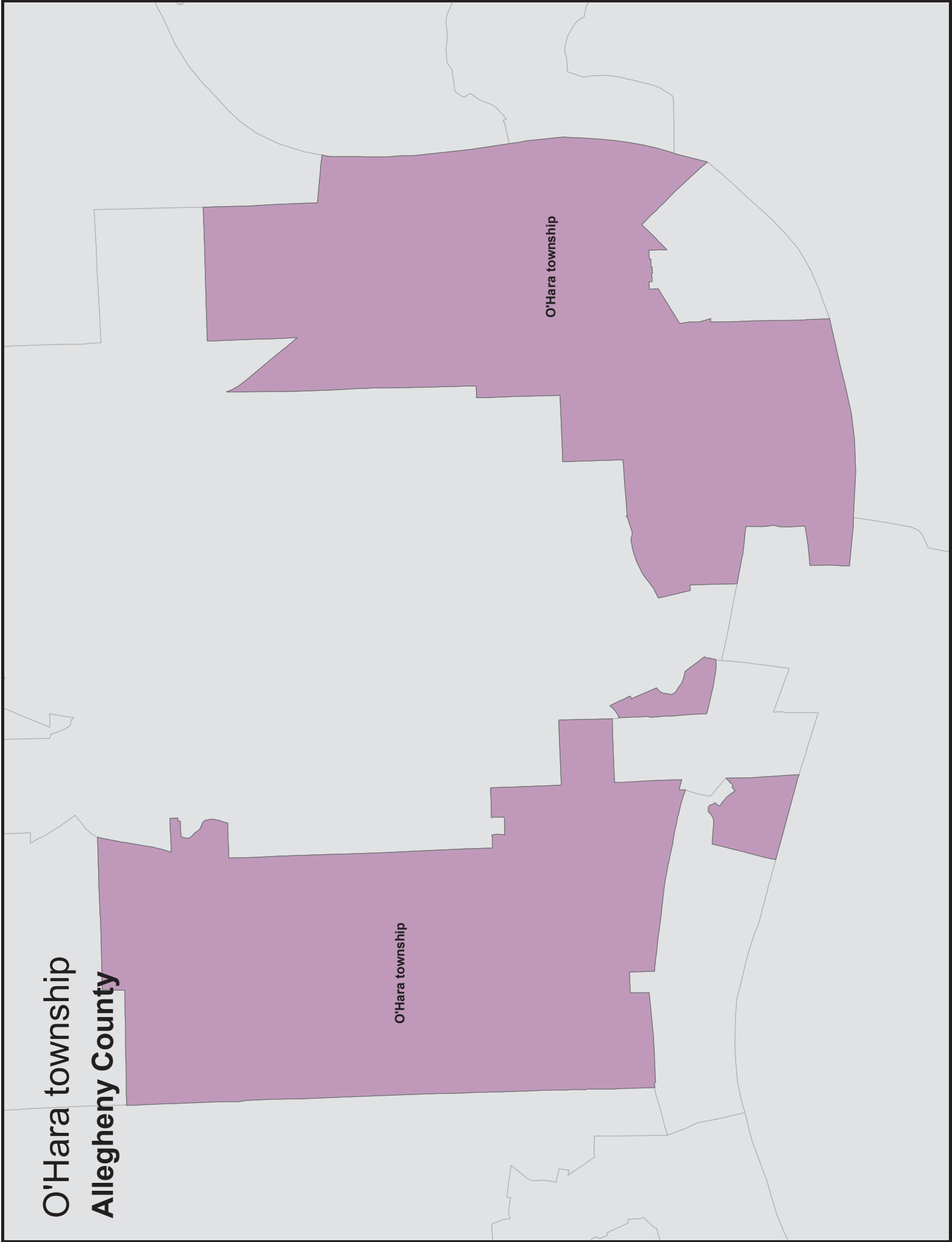
Trafford borough

Allegheny County

Trafford borough
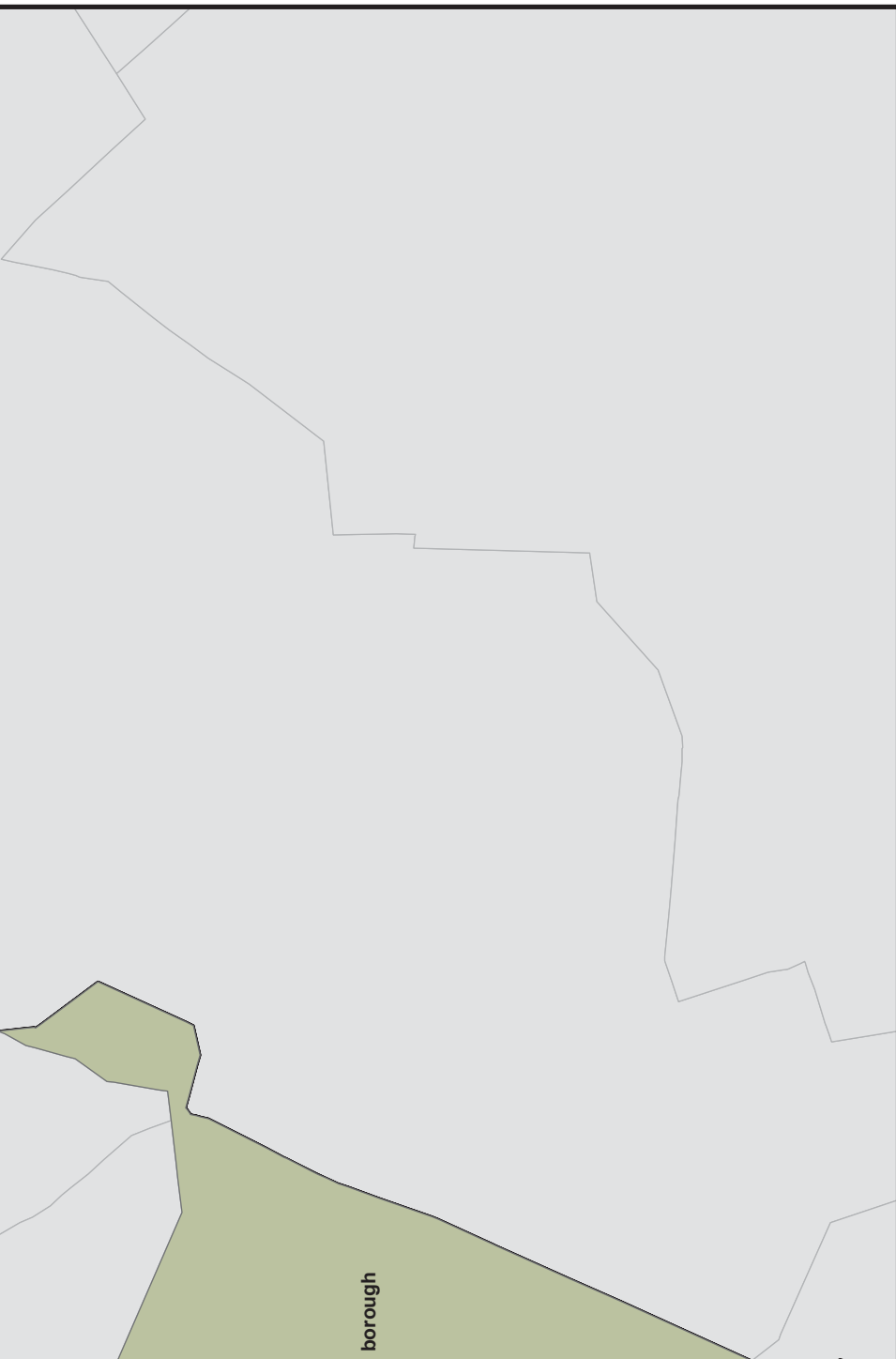
Trafford borough

Cumru township

Berks County

Cumru township
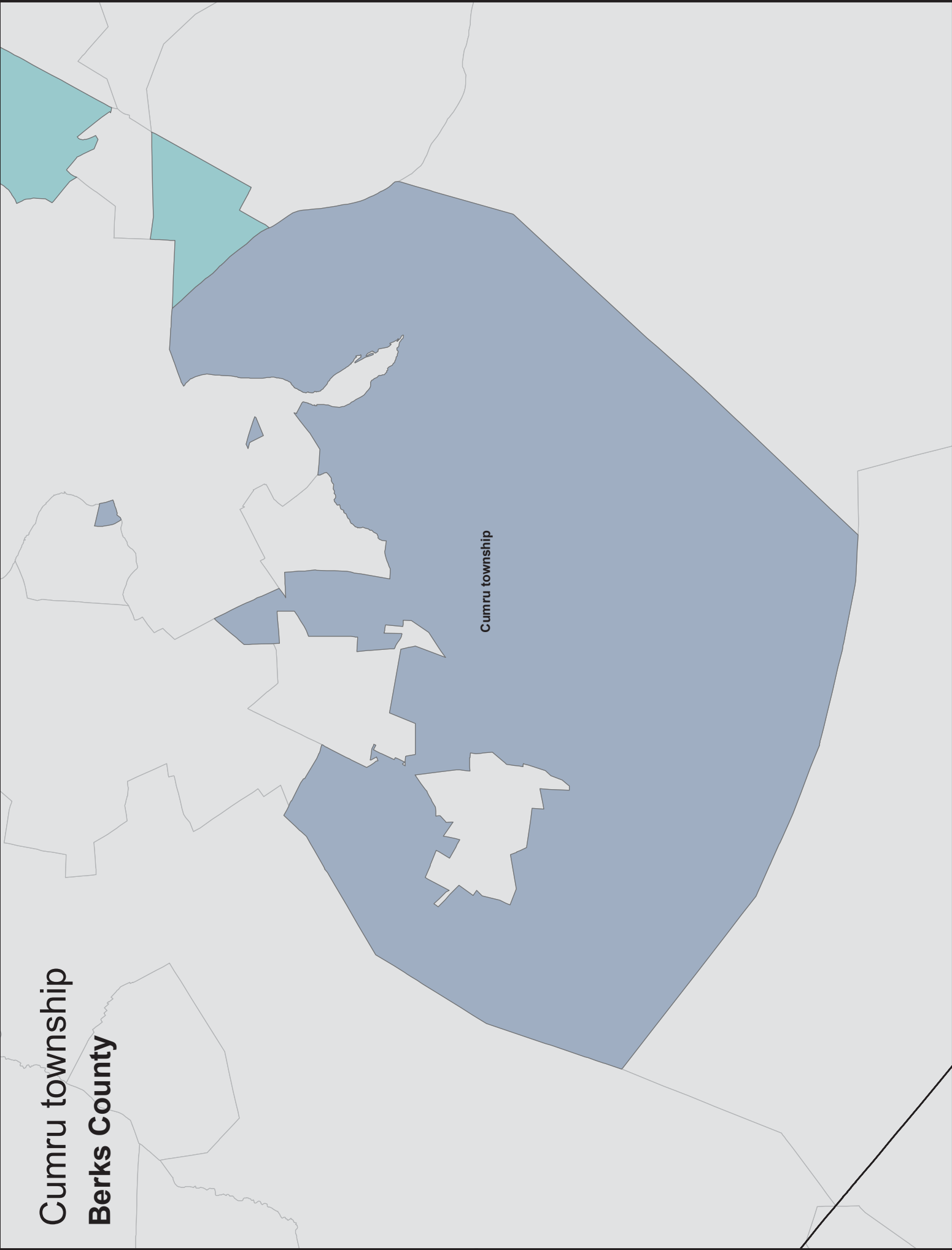
Lower Alsace township

Berks County

Lower Alsace township
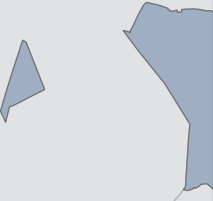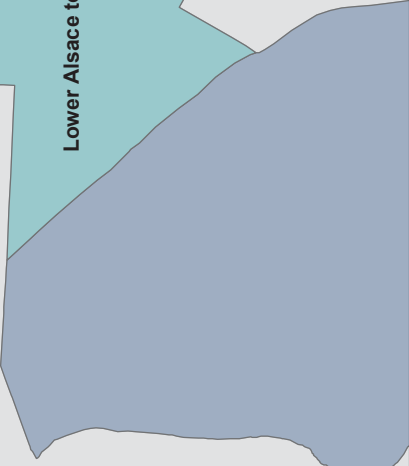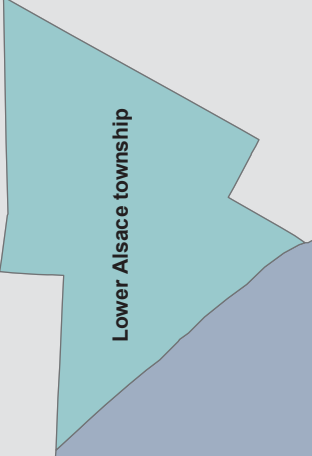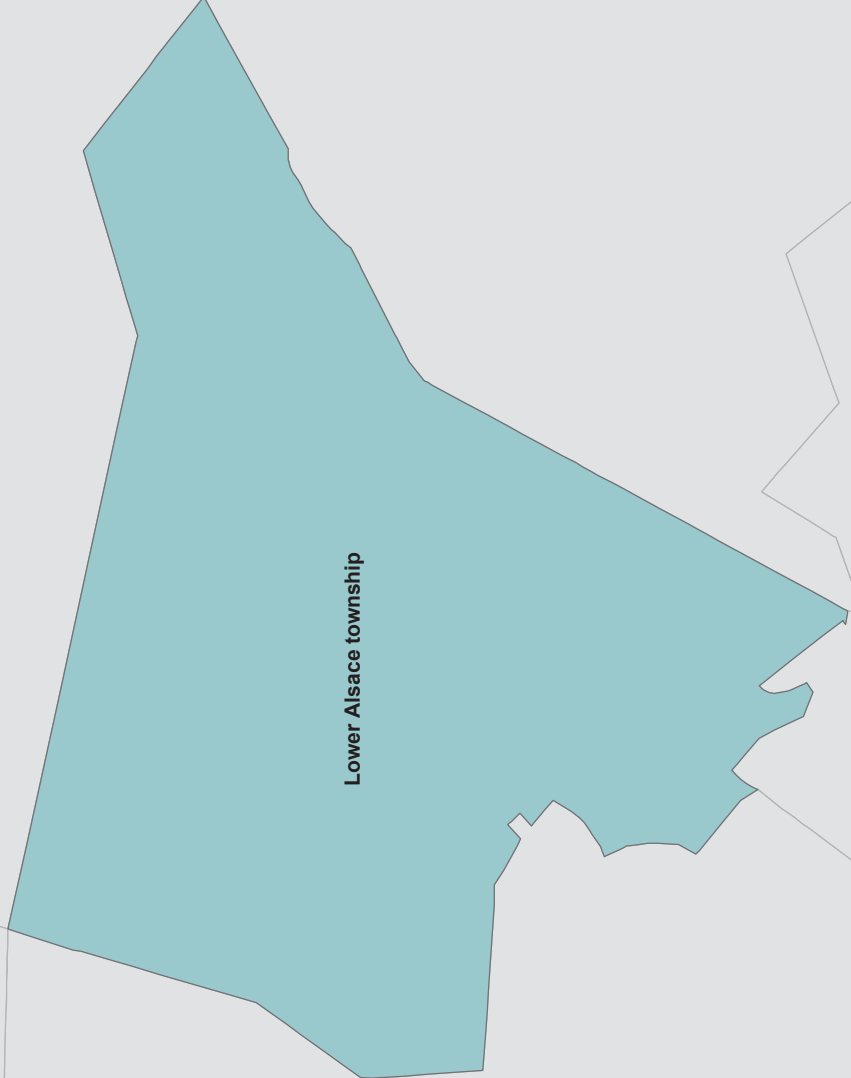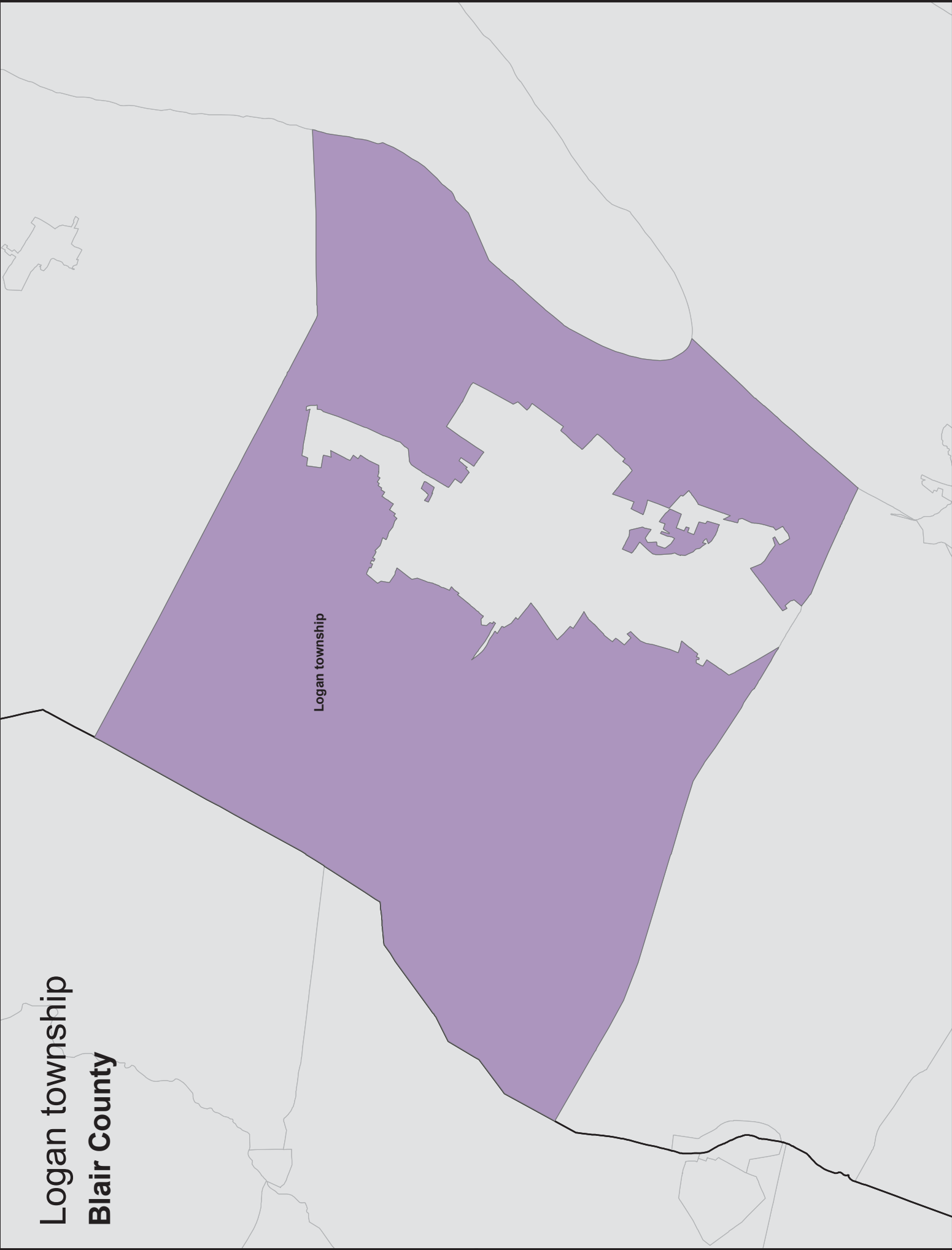
Lower Alsace township

Logan township

Blair County

Logan township

Doylestown township
Bucks County

Doylestown township
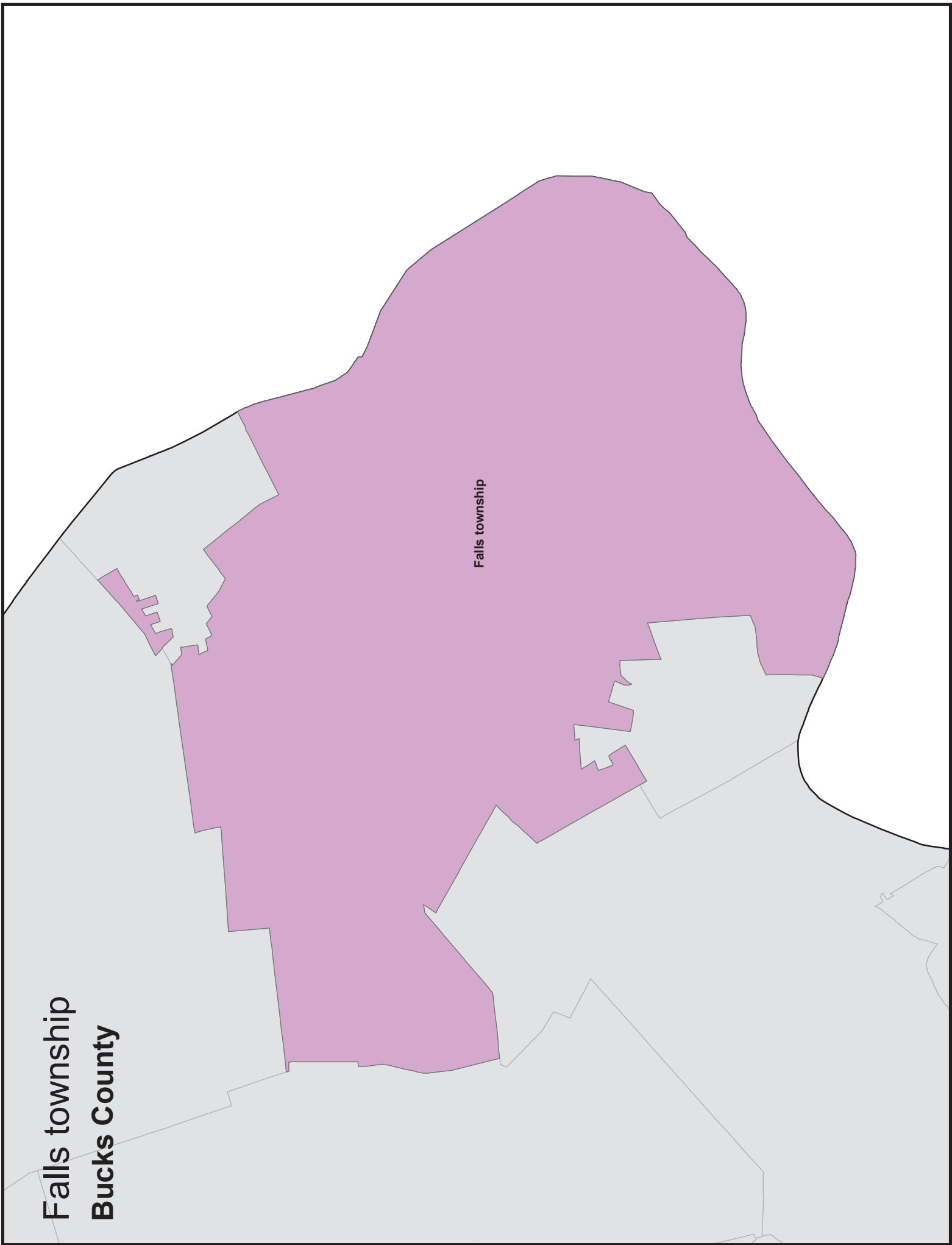
Falls township

Bucks County

Falls township

Newtown township

Newtown township
Bucks County
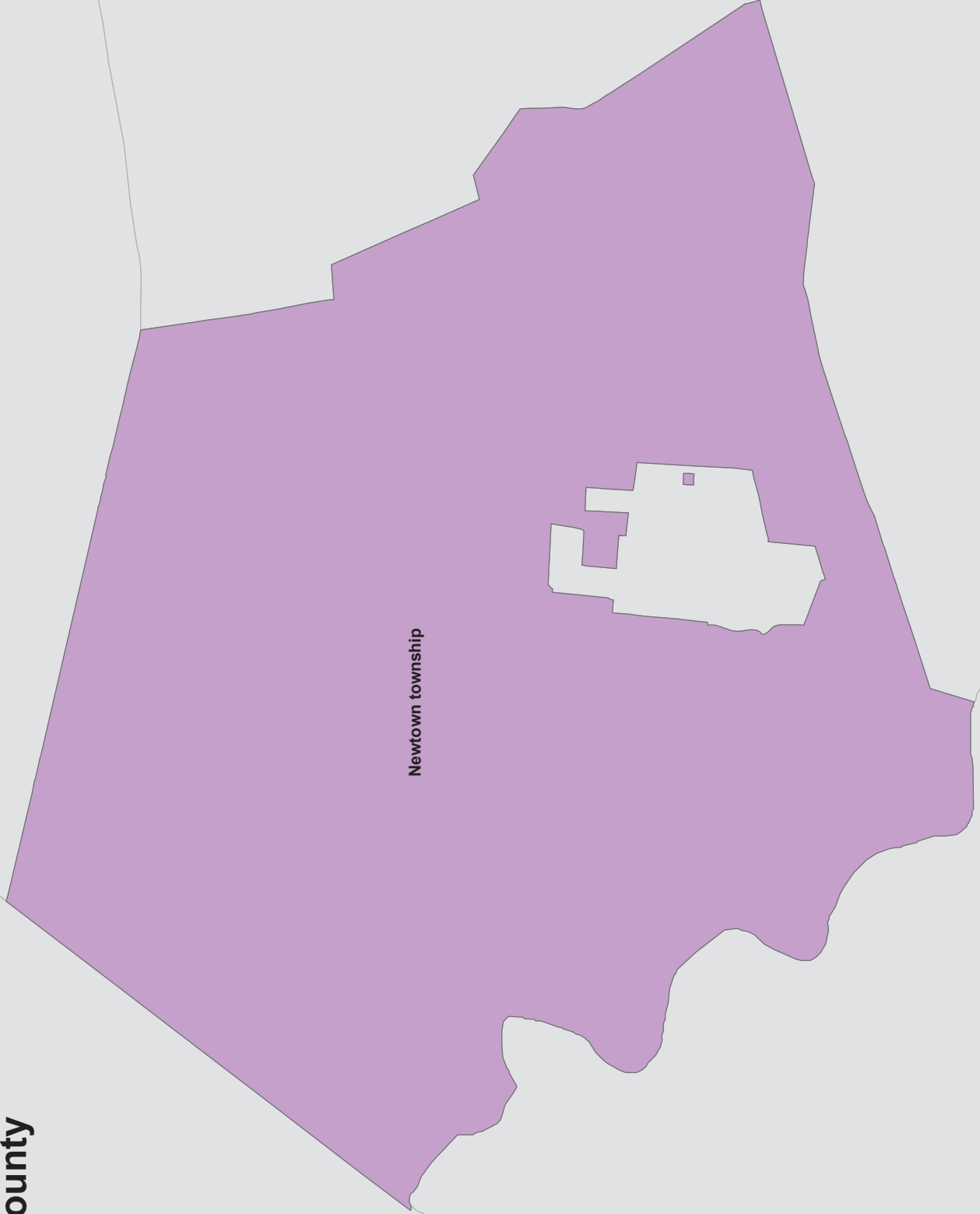
Richland township
Bucks County

Richland township
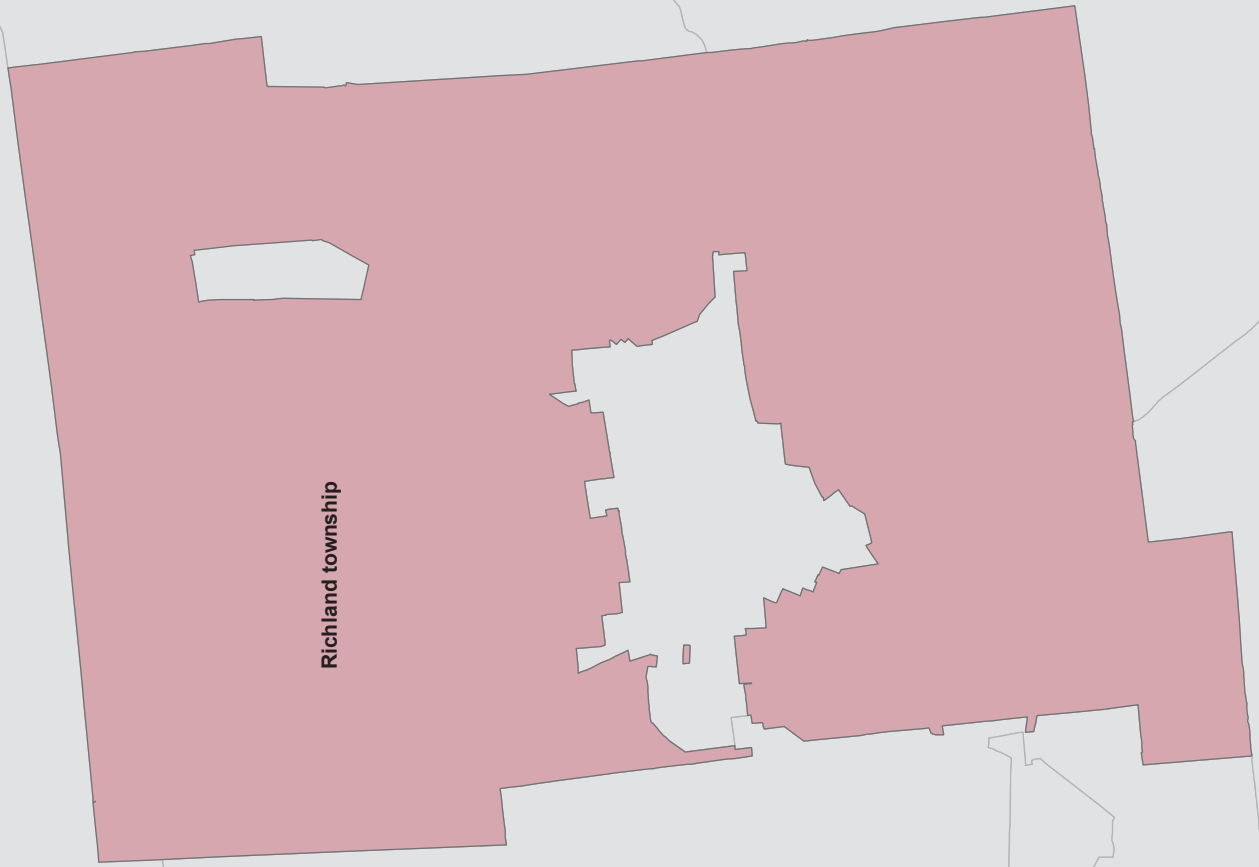
Cranberry township
Butler County

Cranberry township

Slippery Rock township

Slippery Rock township
Butler County
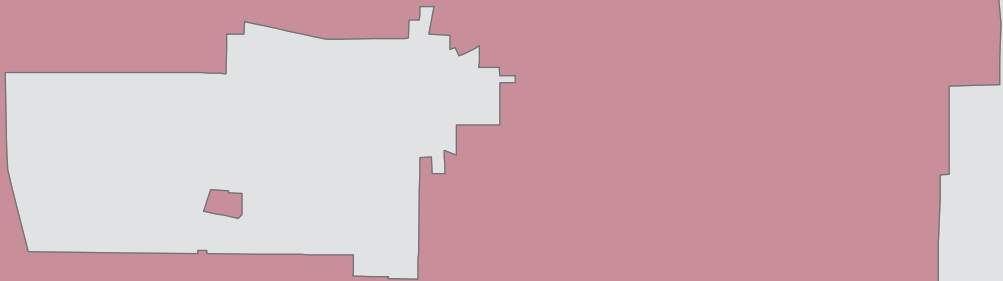
Portage borough
Cambria County

Portage borough

Portage borough

Elder township

Cambria County

Elder township
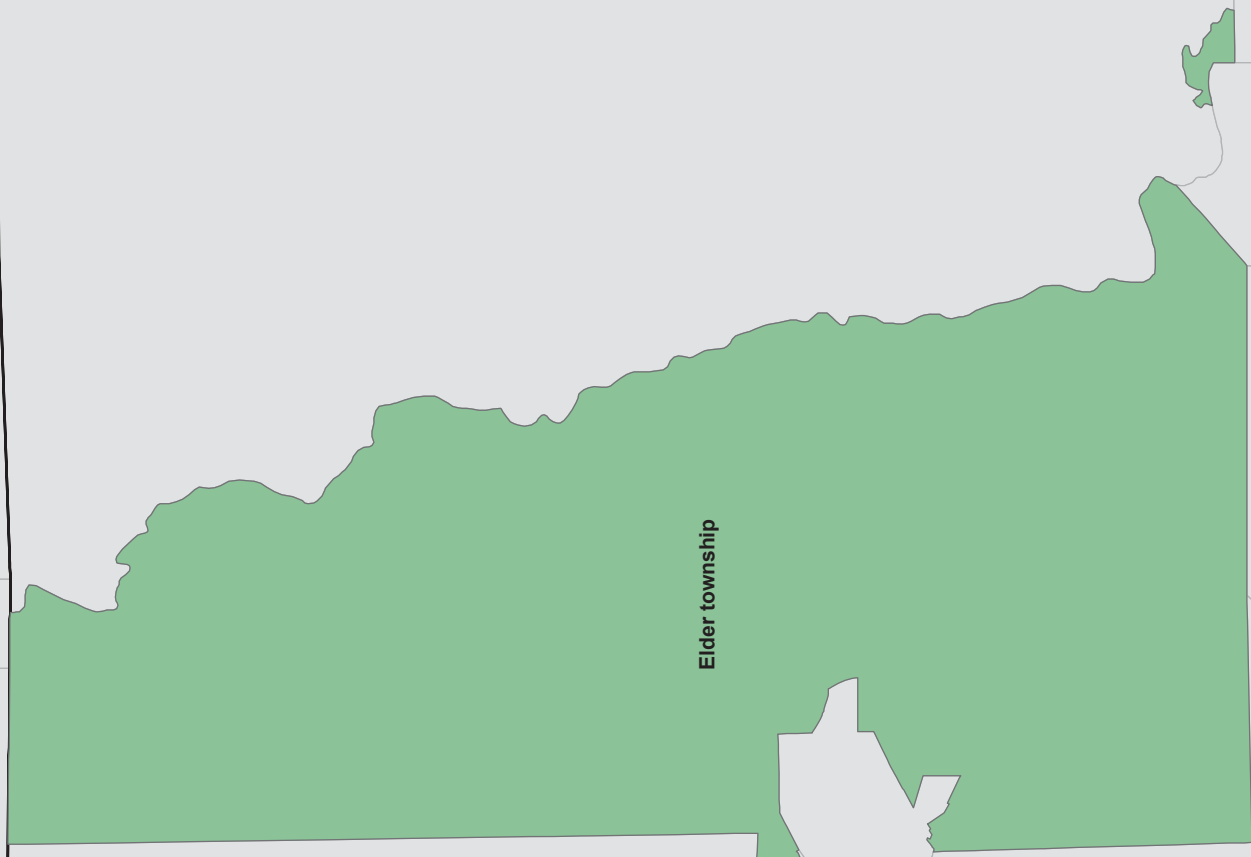
Northern Cambria borough

Cambria County
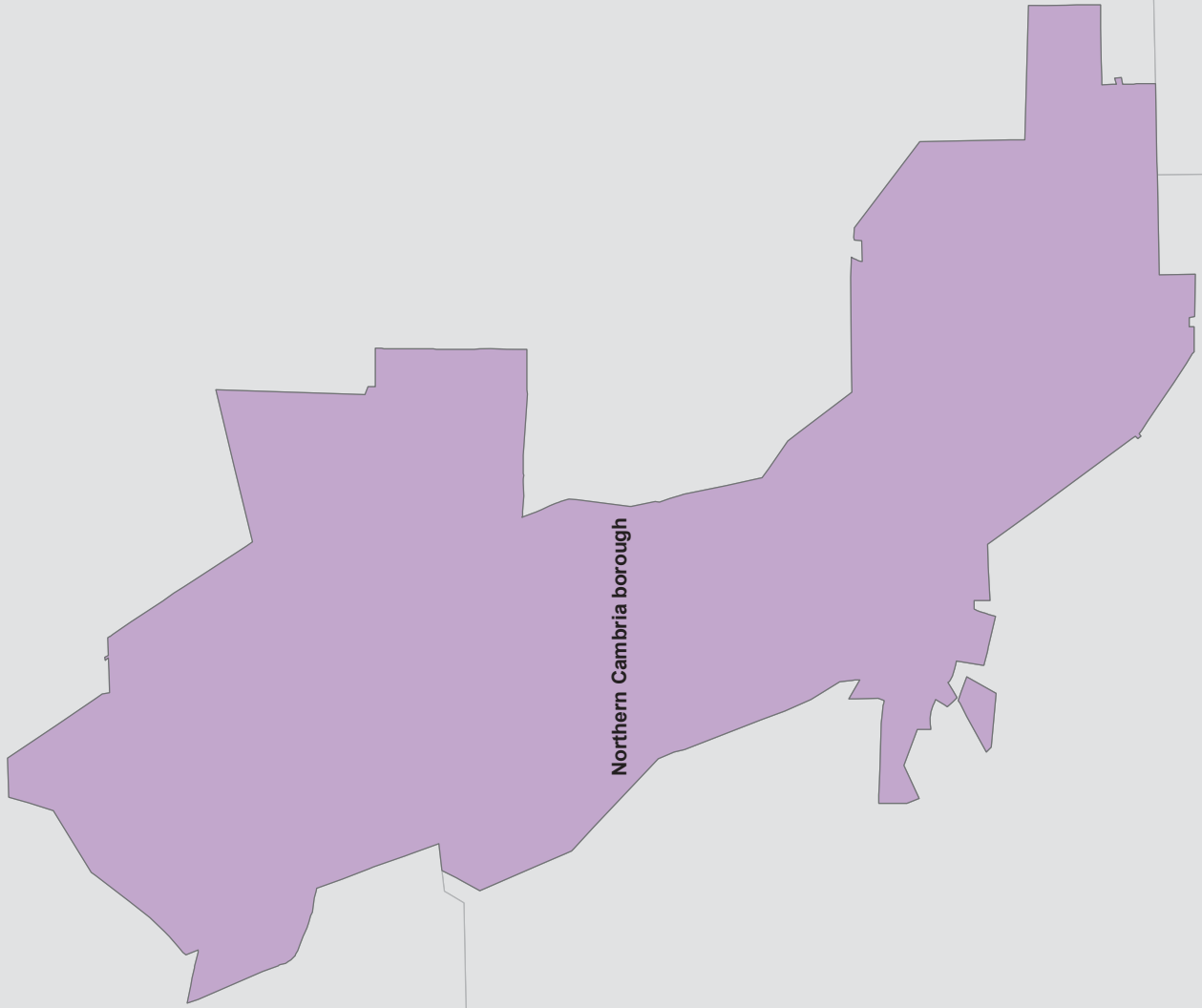
Northern Cambria borough

Birmingham township

Chester County

Birmingham township
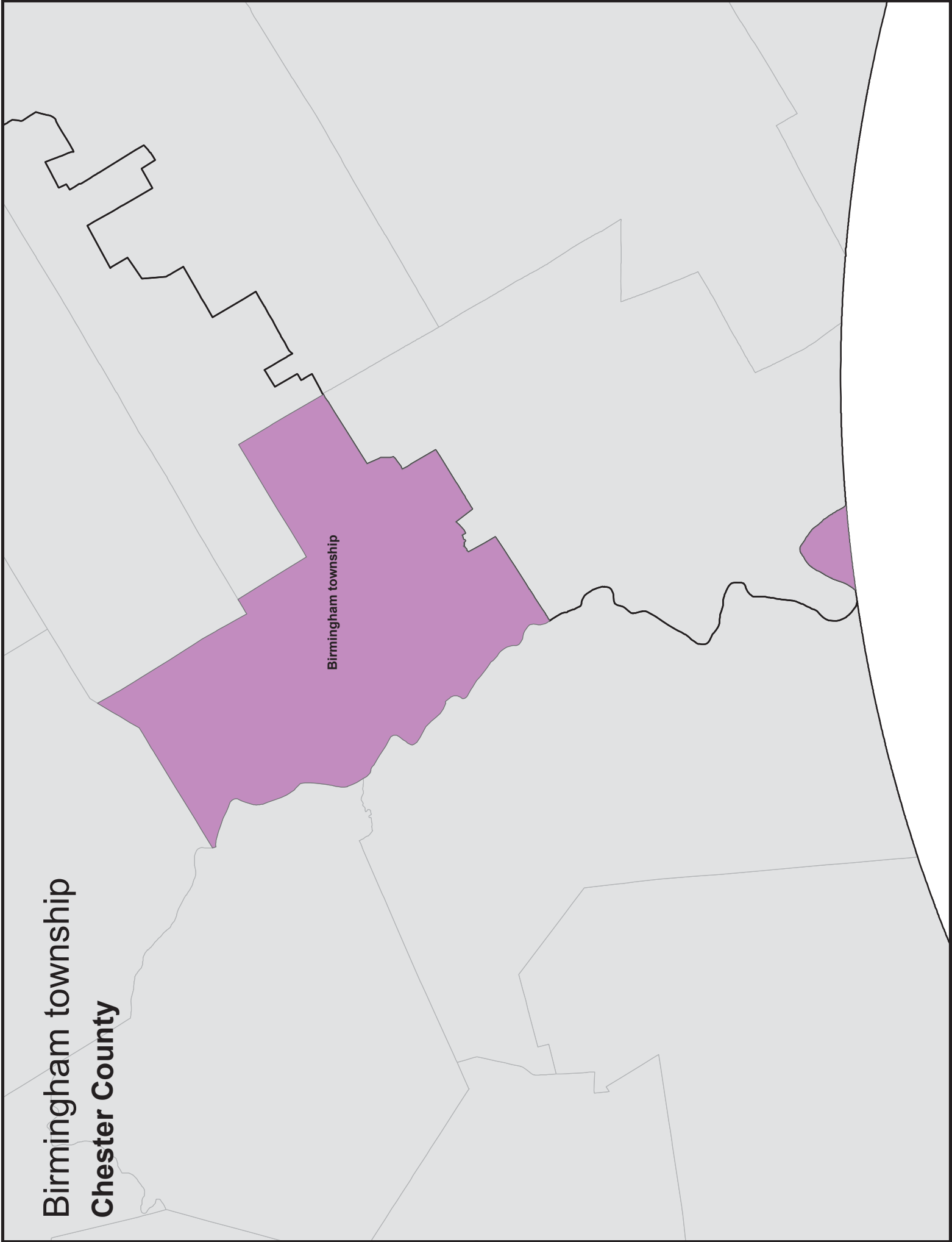
Schuylkill township

Chester County

Schuylkill township
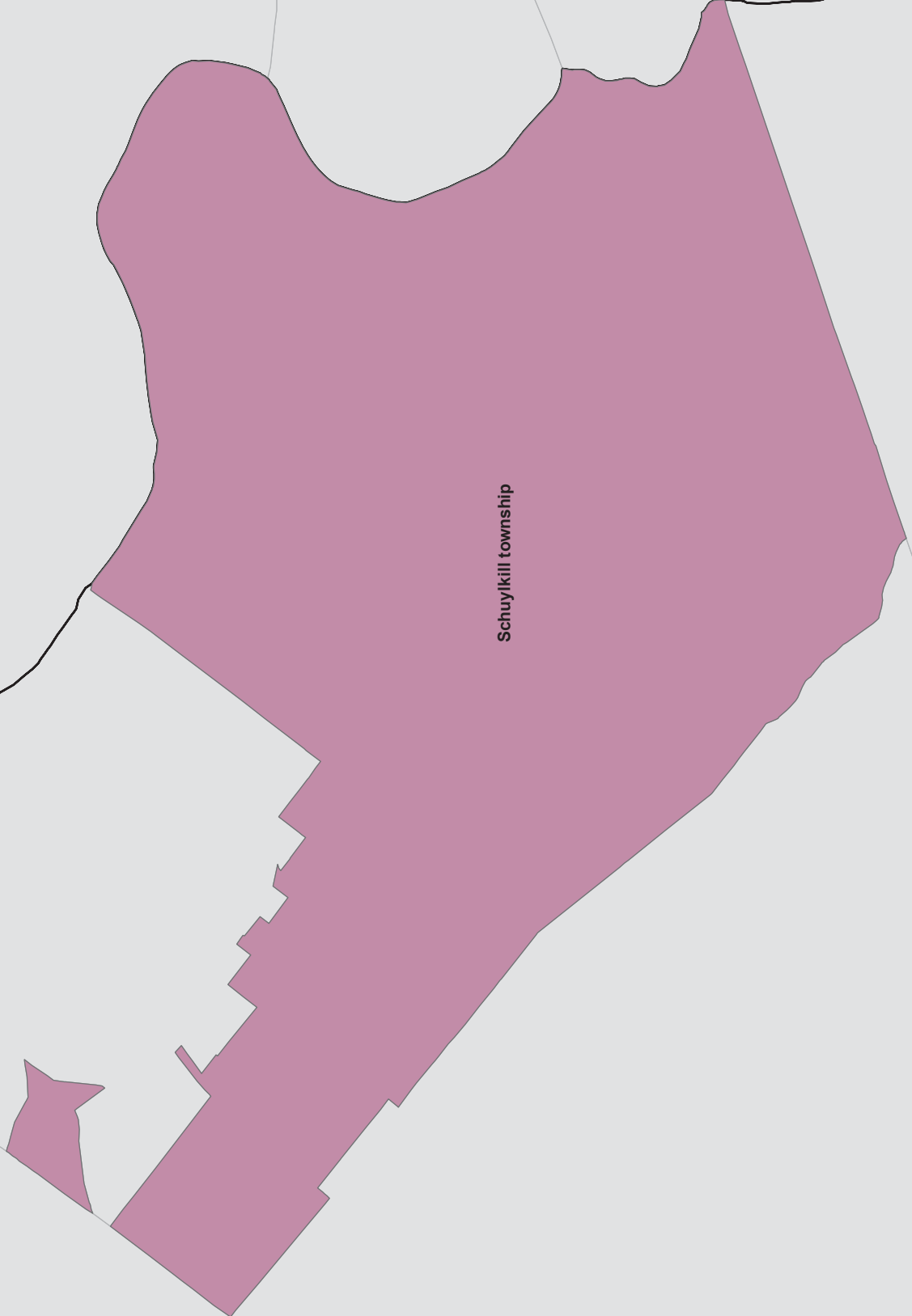
Valley township
Chester County

Valley township

Valley township

Emlenton borough
Clarion County
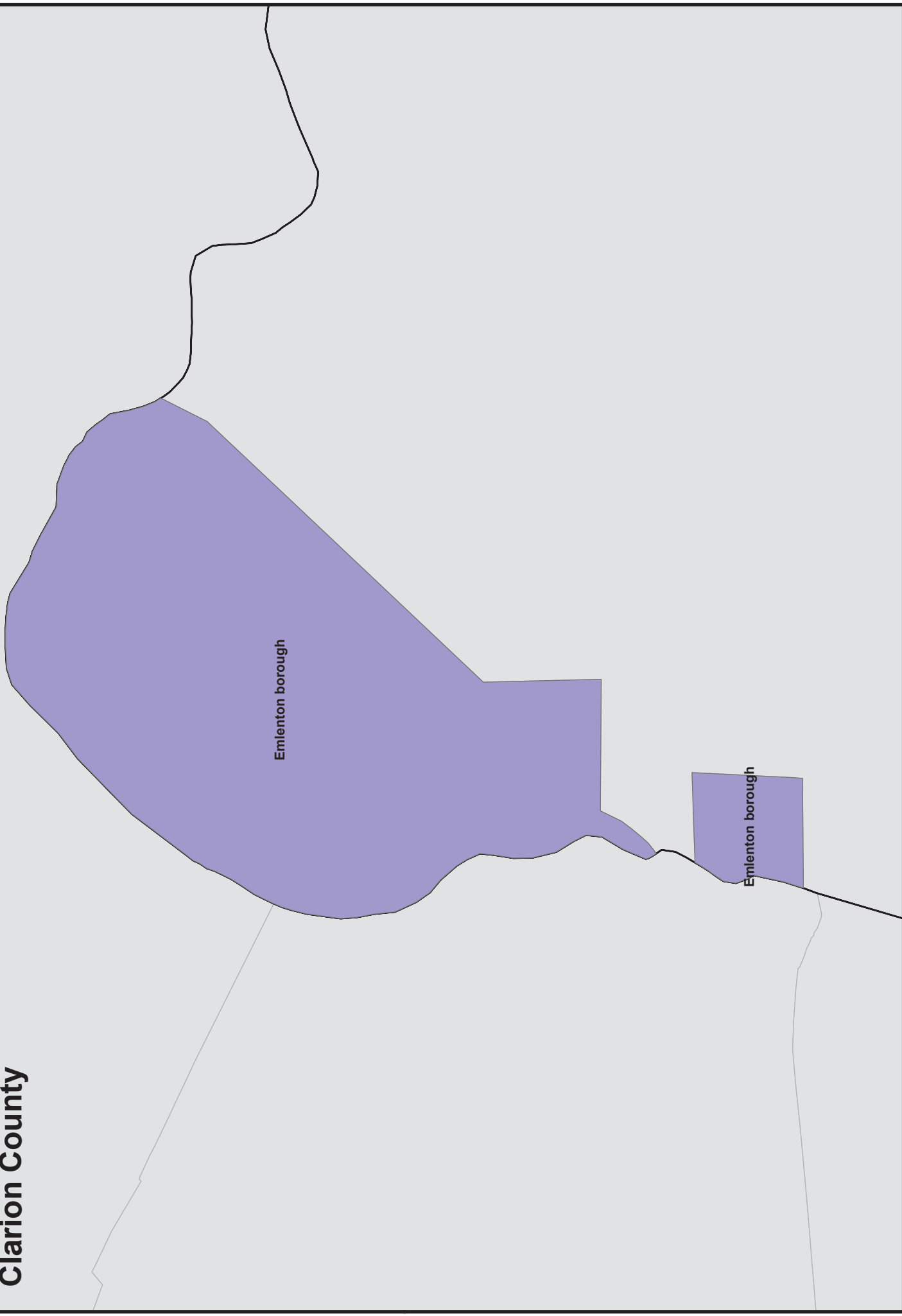
Emlenton borough

Emlenton borough

Meadville city
Crawford County
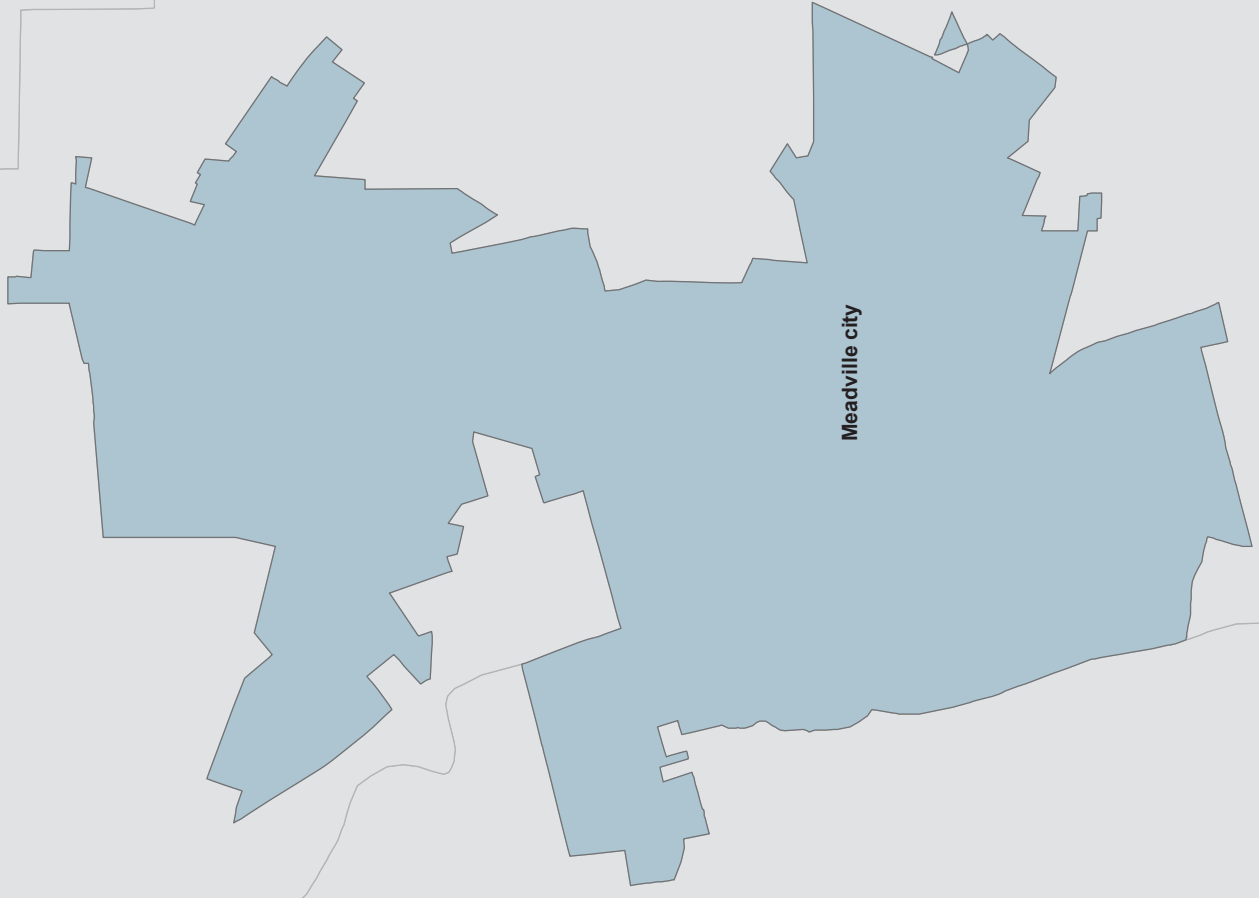
Meadville city

Shippensburg township
Cumberland County

Shippensburg township
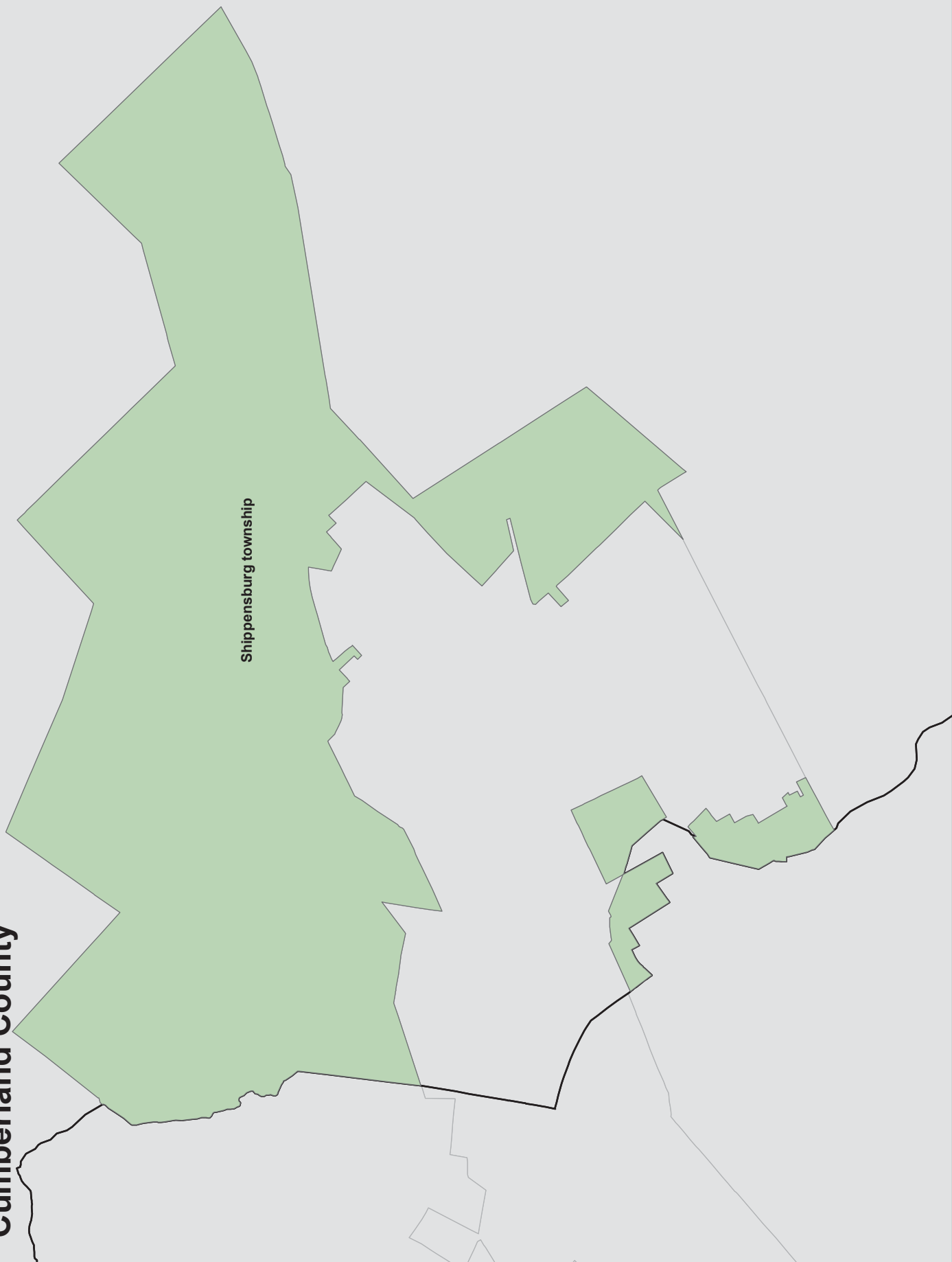
Derry township
Dauphin County

Derry township
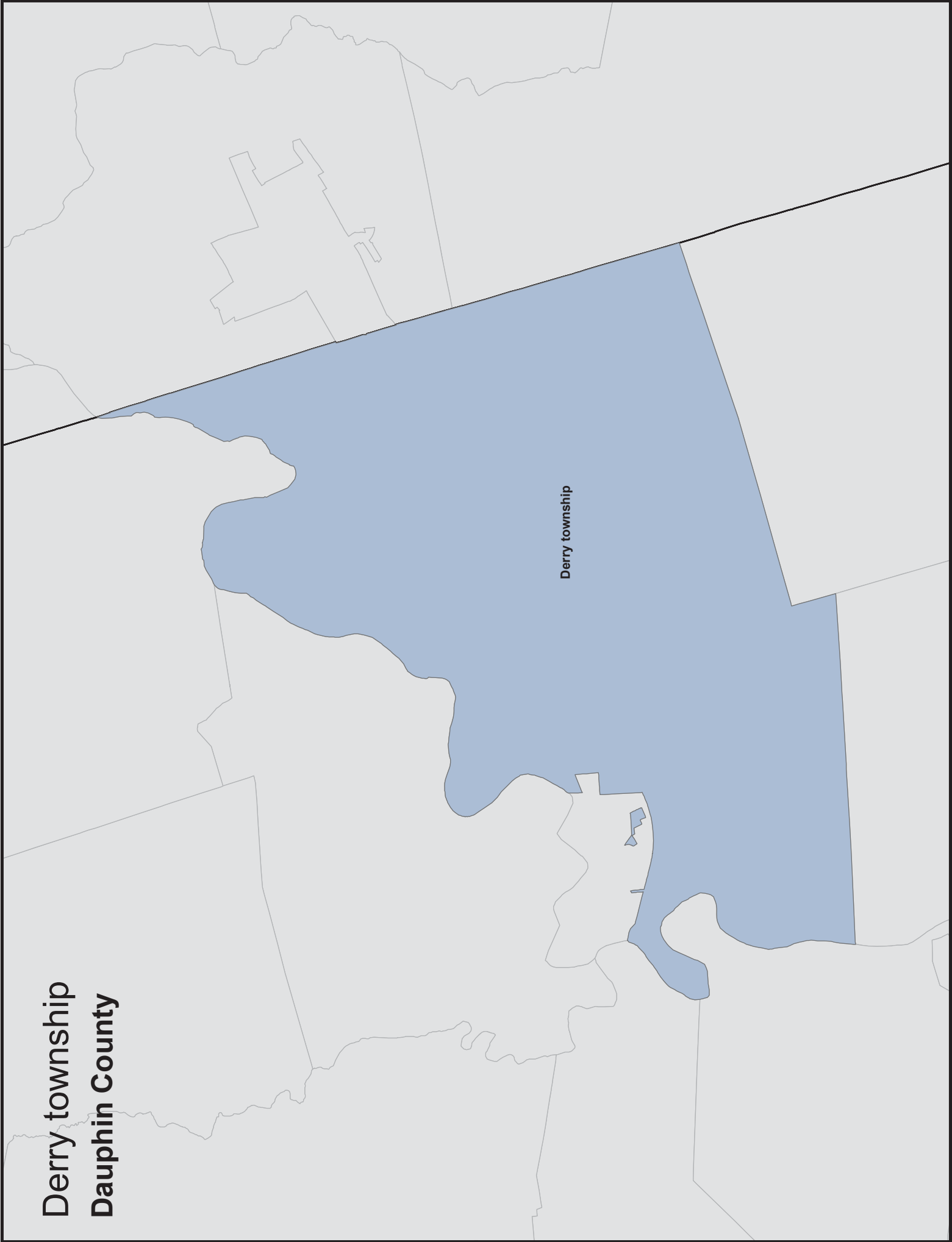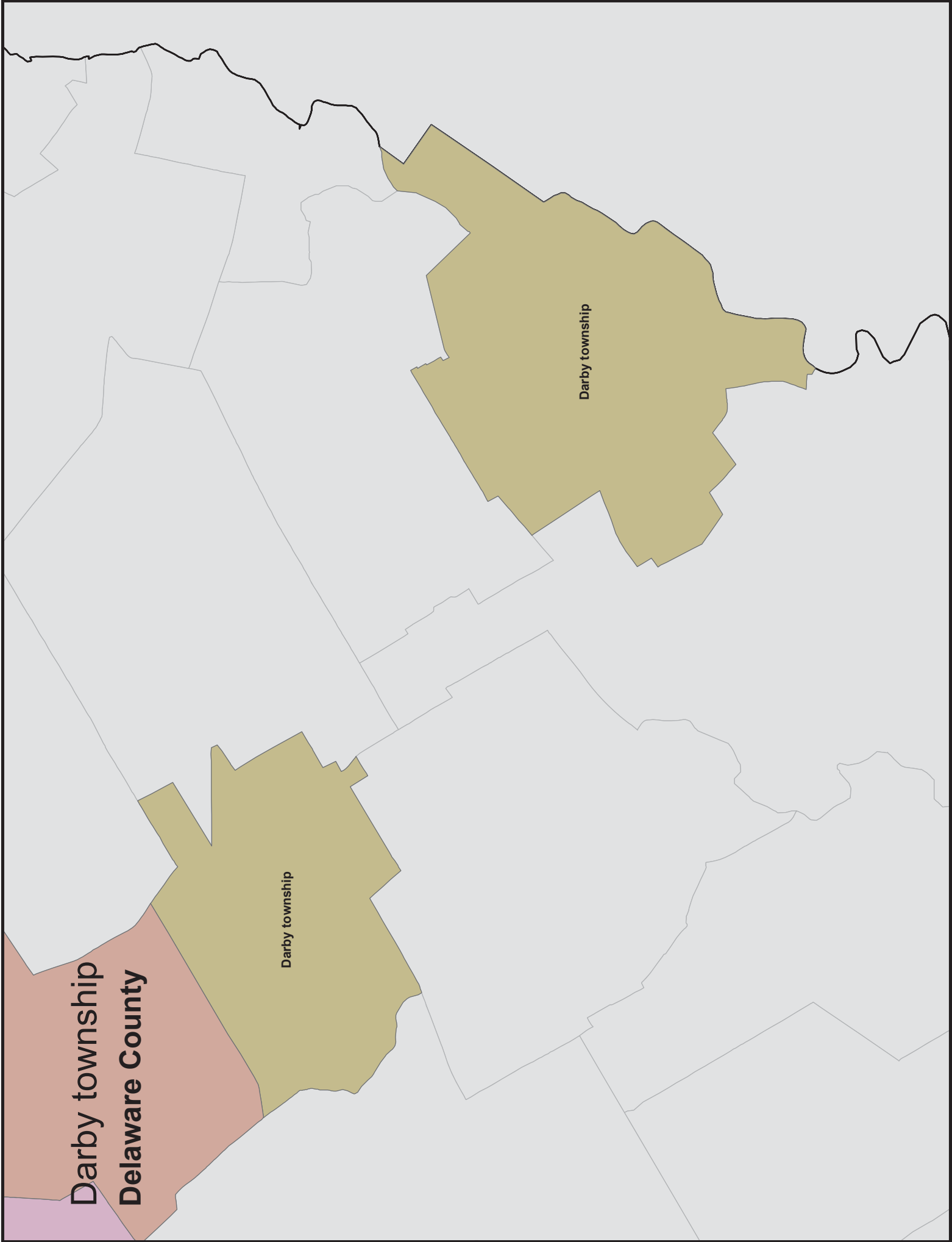
Darby township

Darby township

Darby township
Delaware County

Springfield township

Delaware County

Springfield township
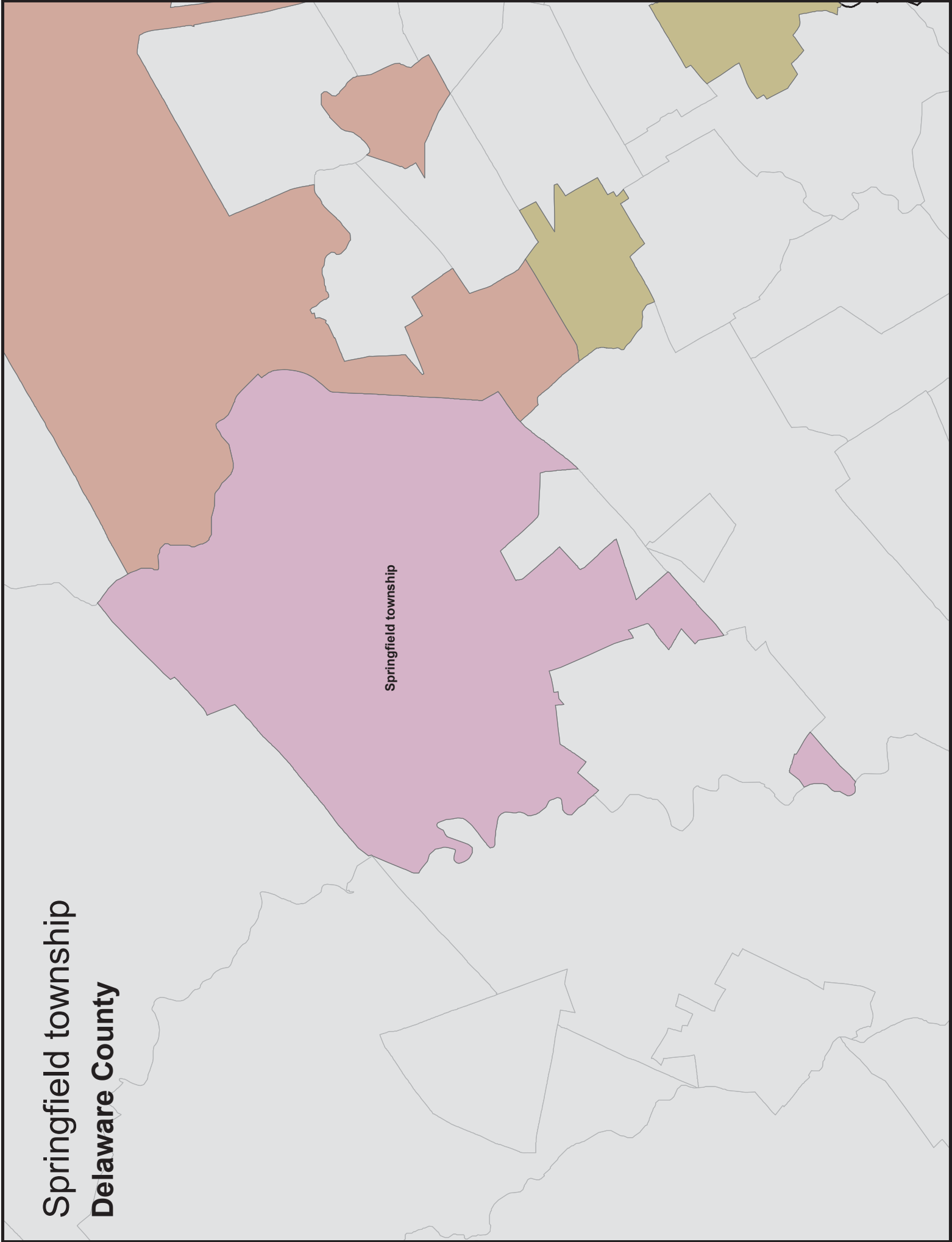
Upper Darby township

Delaware County

Upper Darby township
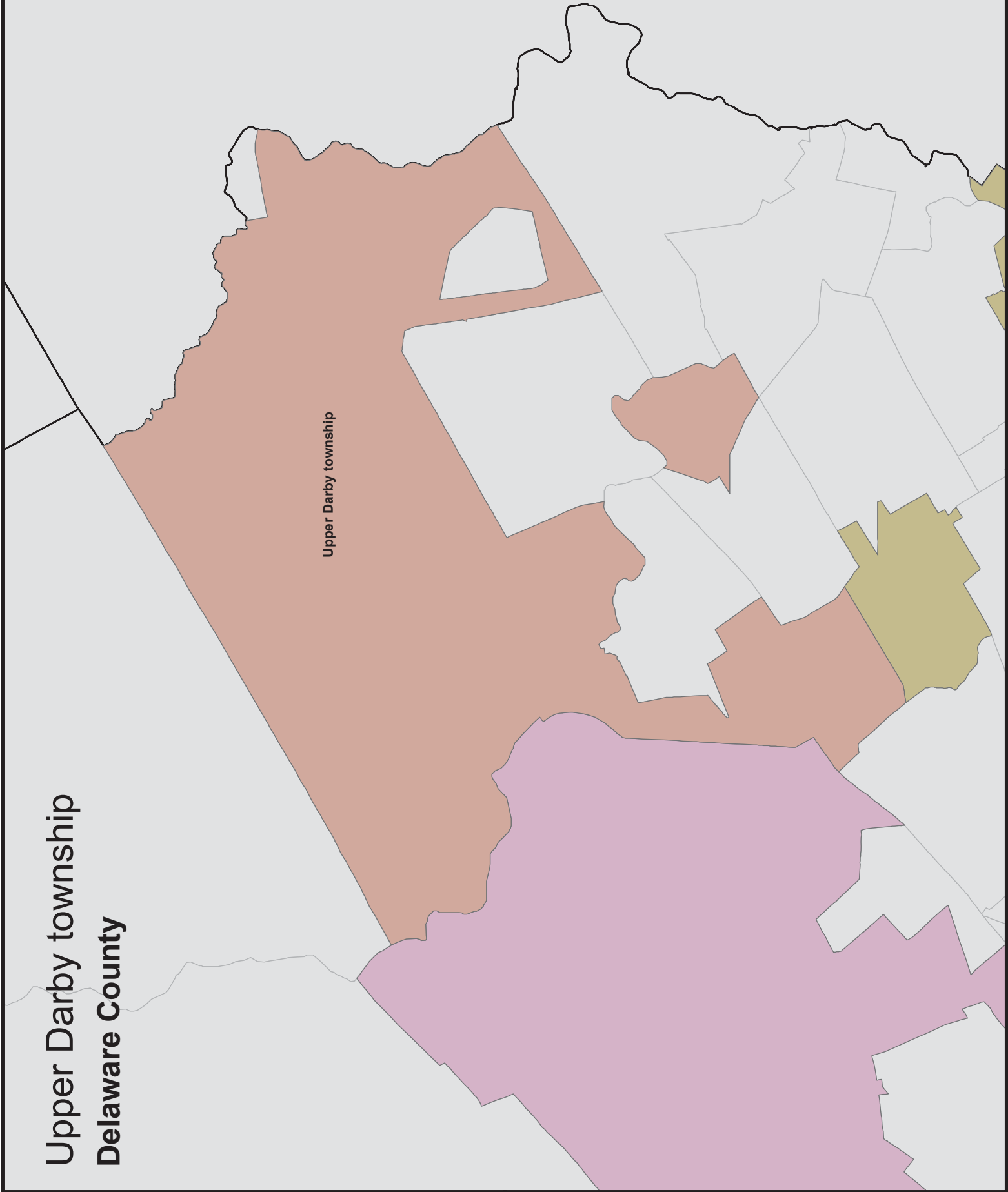
Concord township
Erie County

Concord township
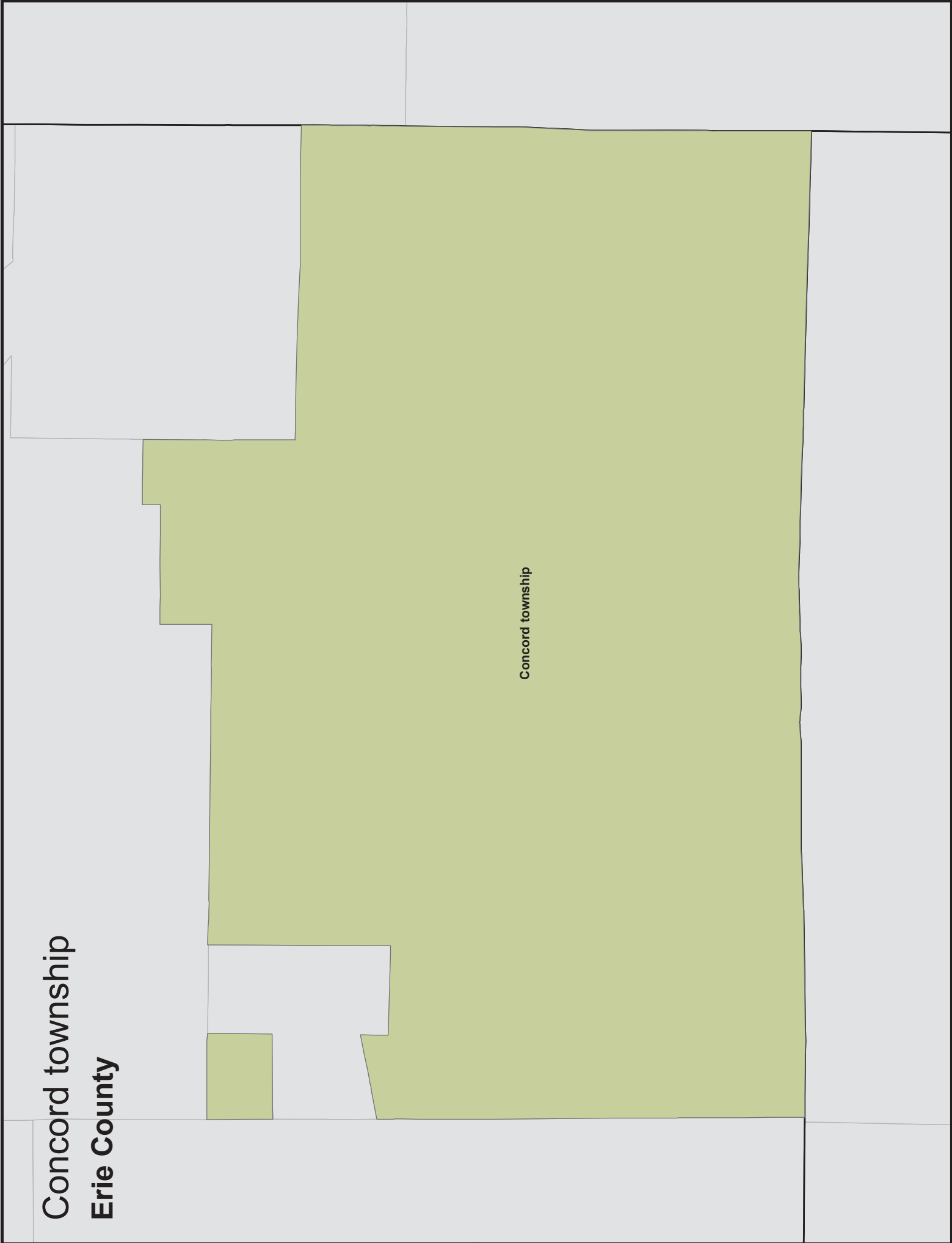
Girard township
Erie County

Girard township
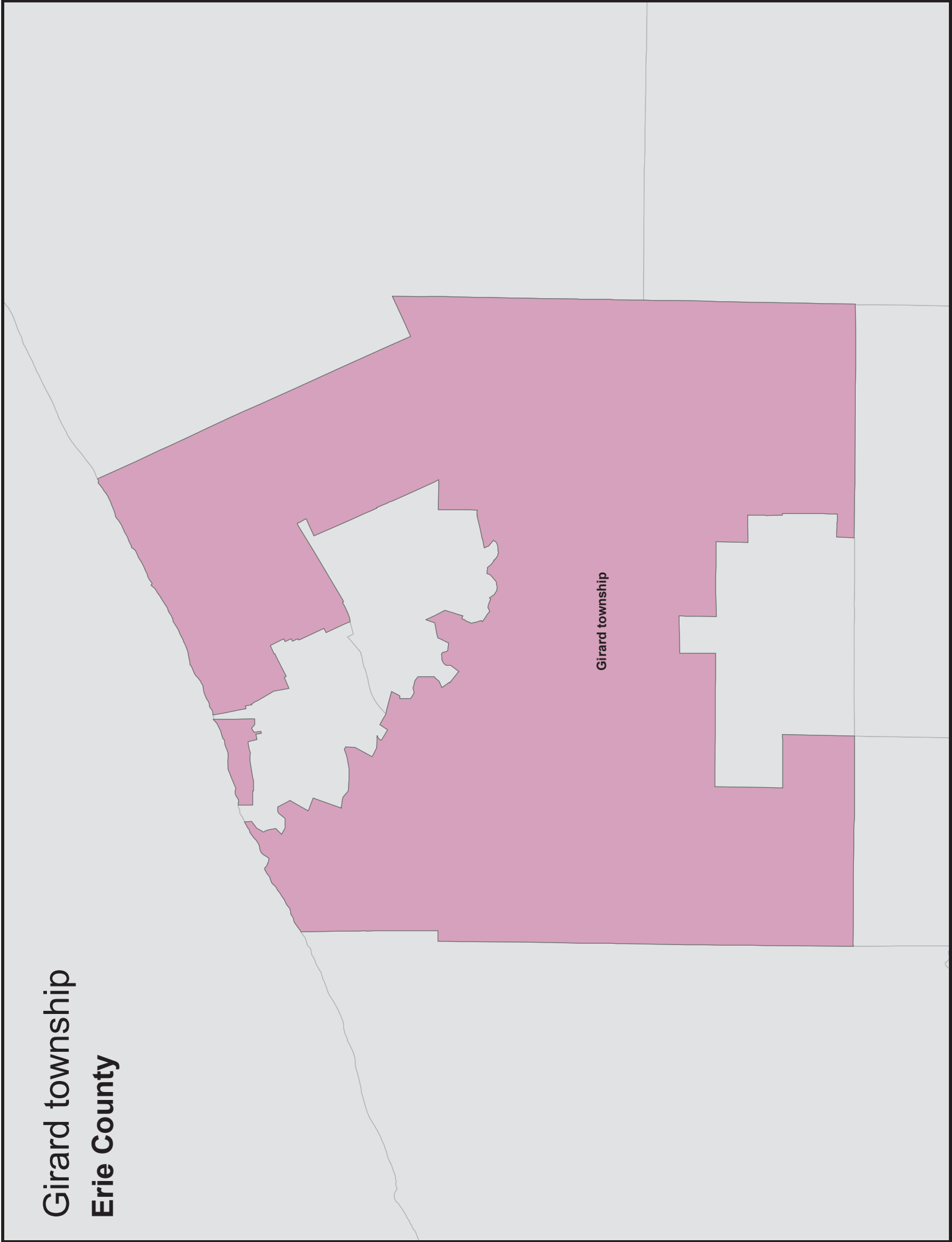
South Abington township
Lackawanna County

South Abington township
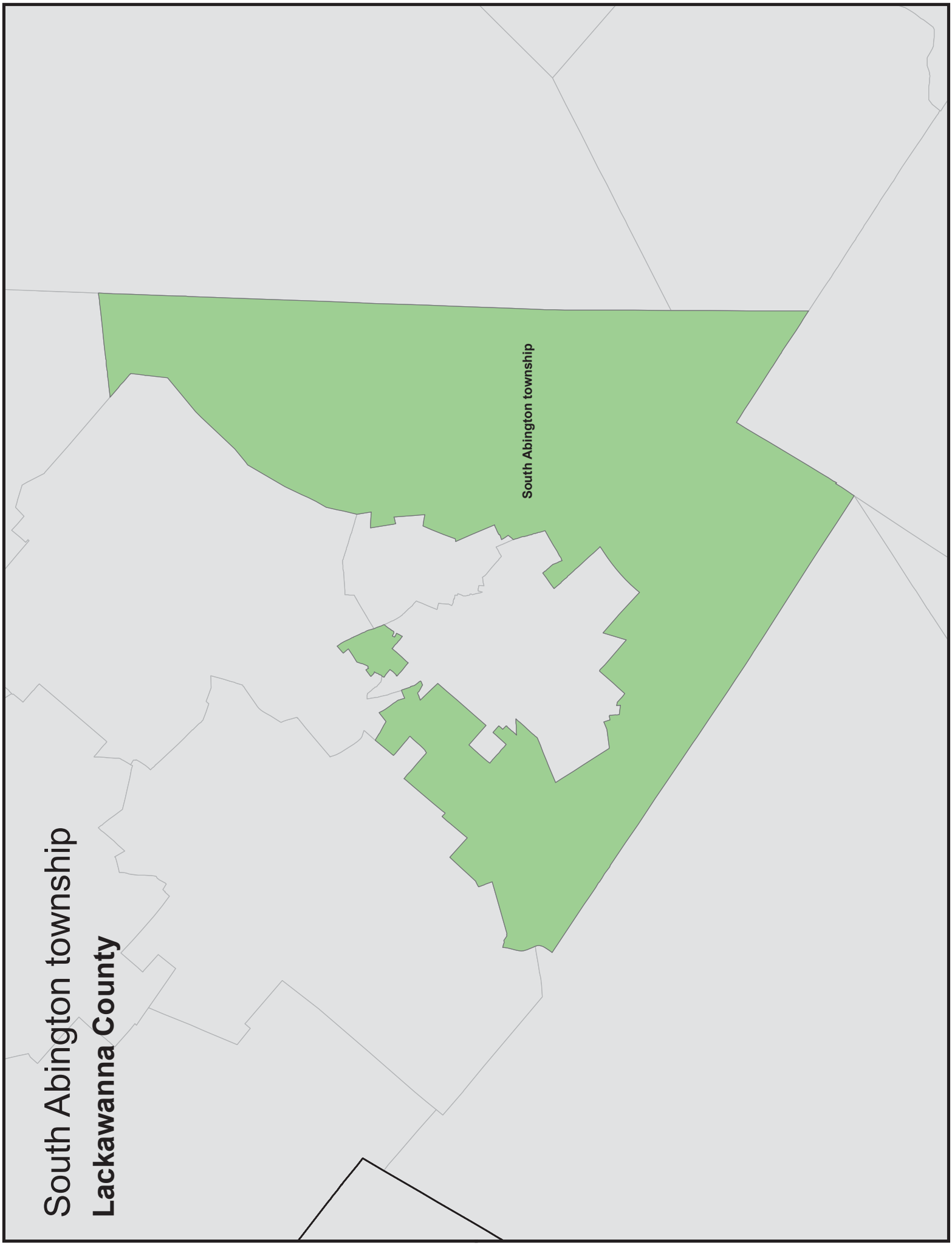
East Hempfield township

Lancaster County

East Hempfield township
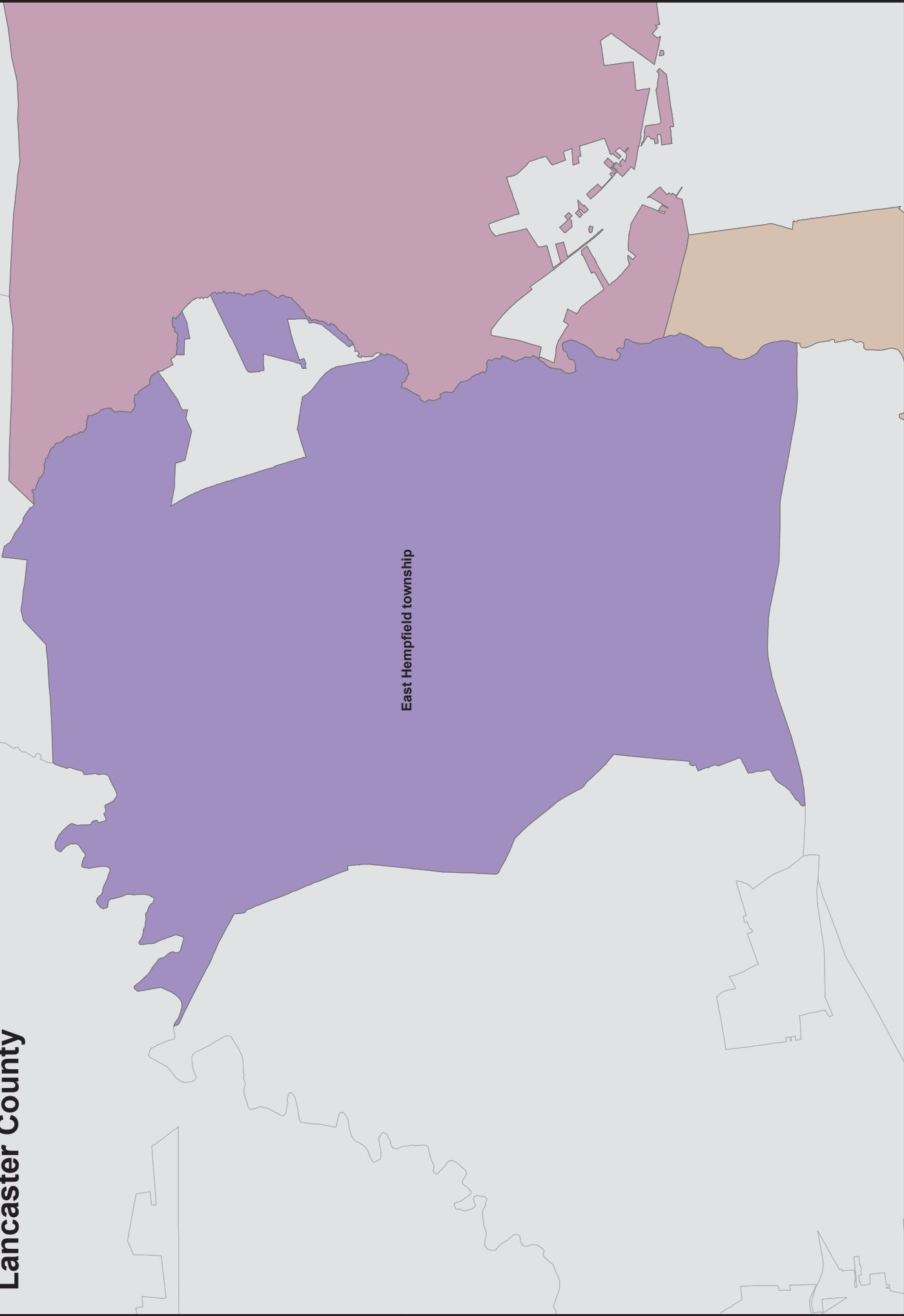
East Lampeter township
Lancaster County

East Lampeter township
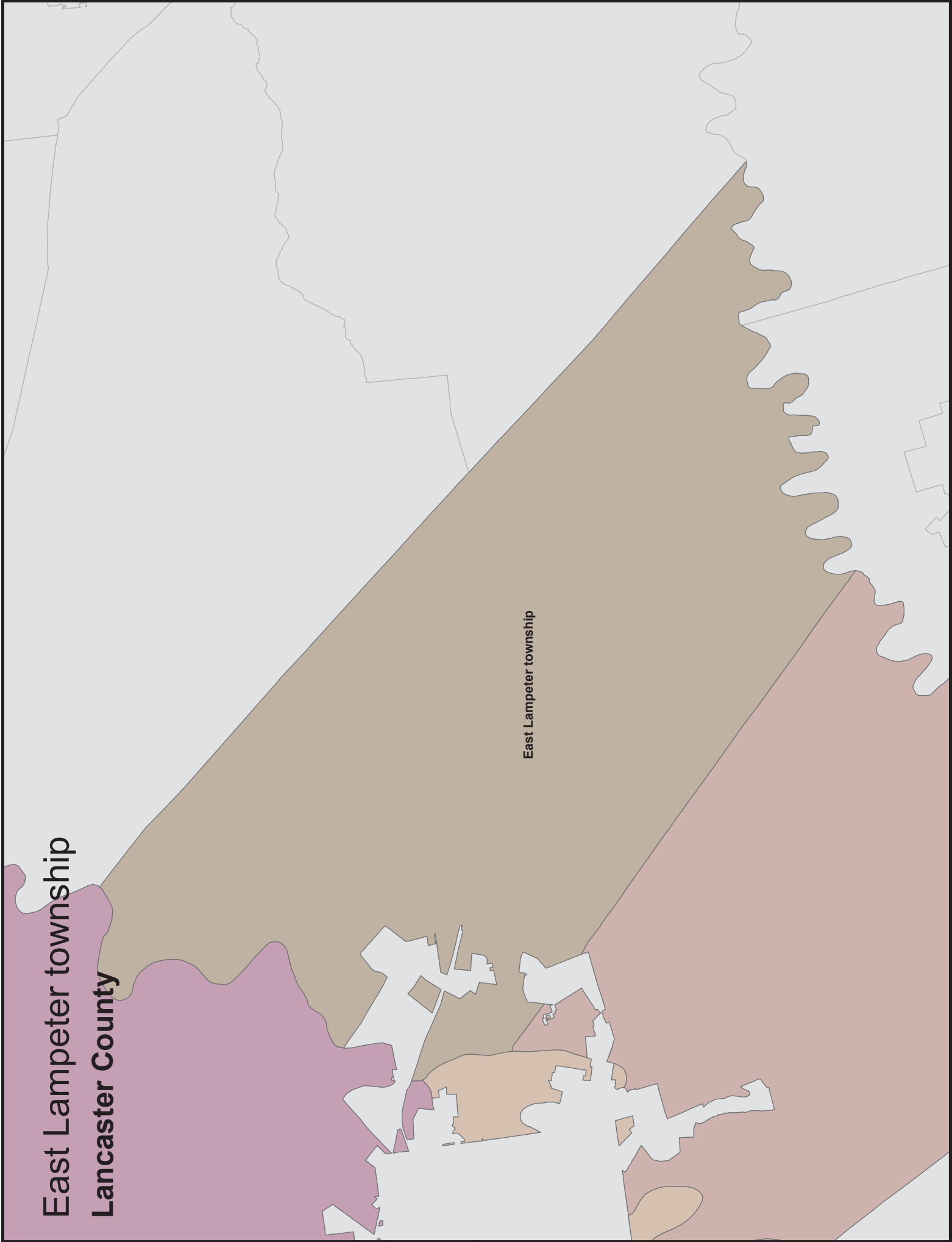
Ephrata township

Ephrata township
Lancaster County

Lancaster township

Lancaster township

Lancaster township
Lancaster County
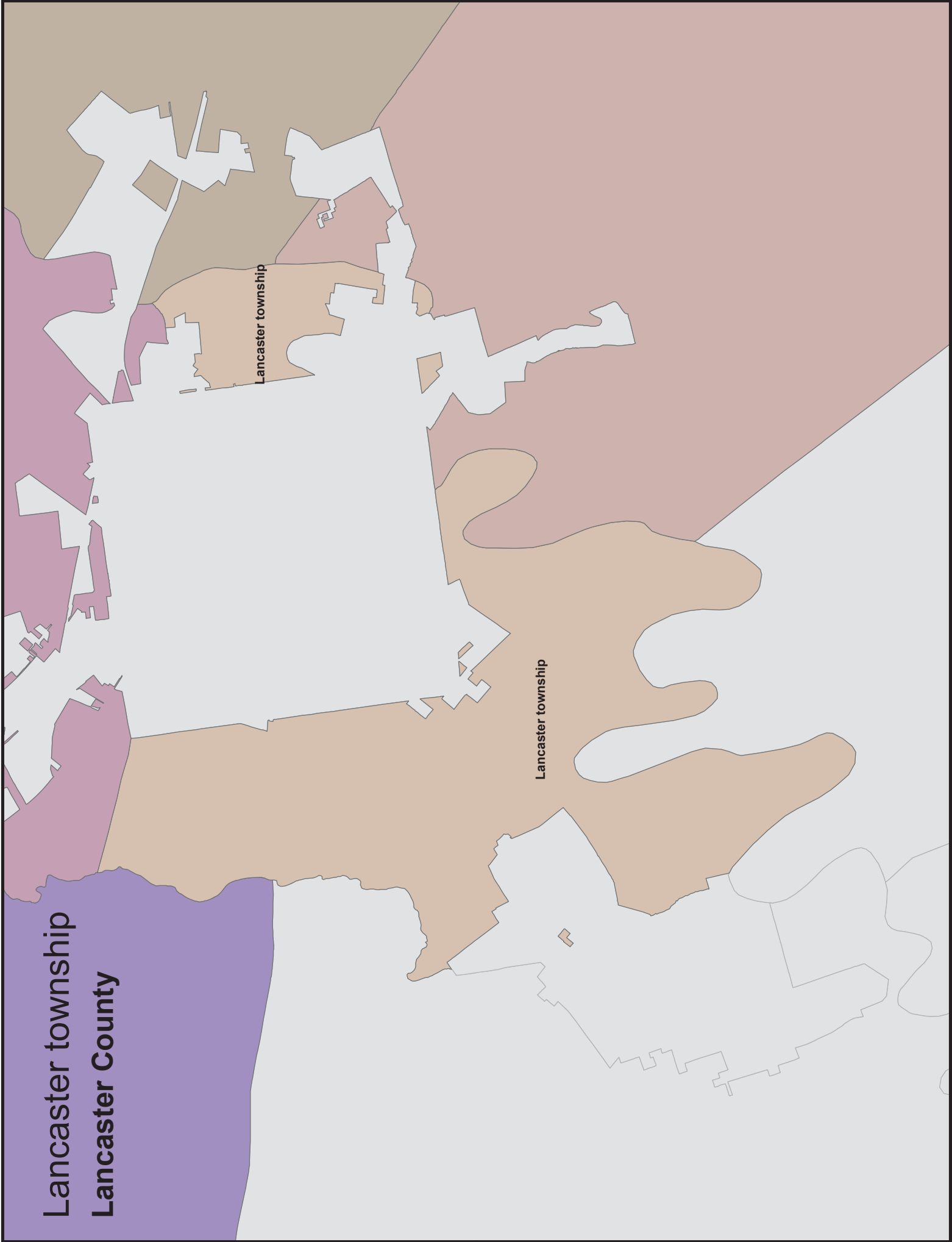
Manheim township

Manheim township
Lancaster County
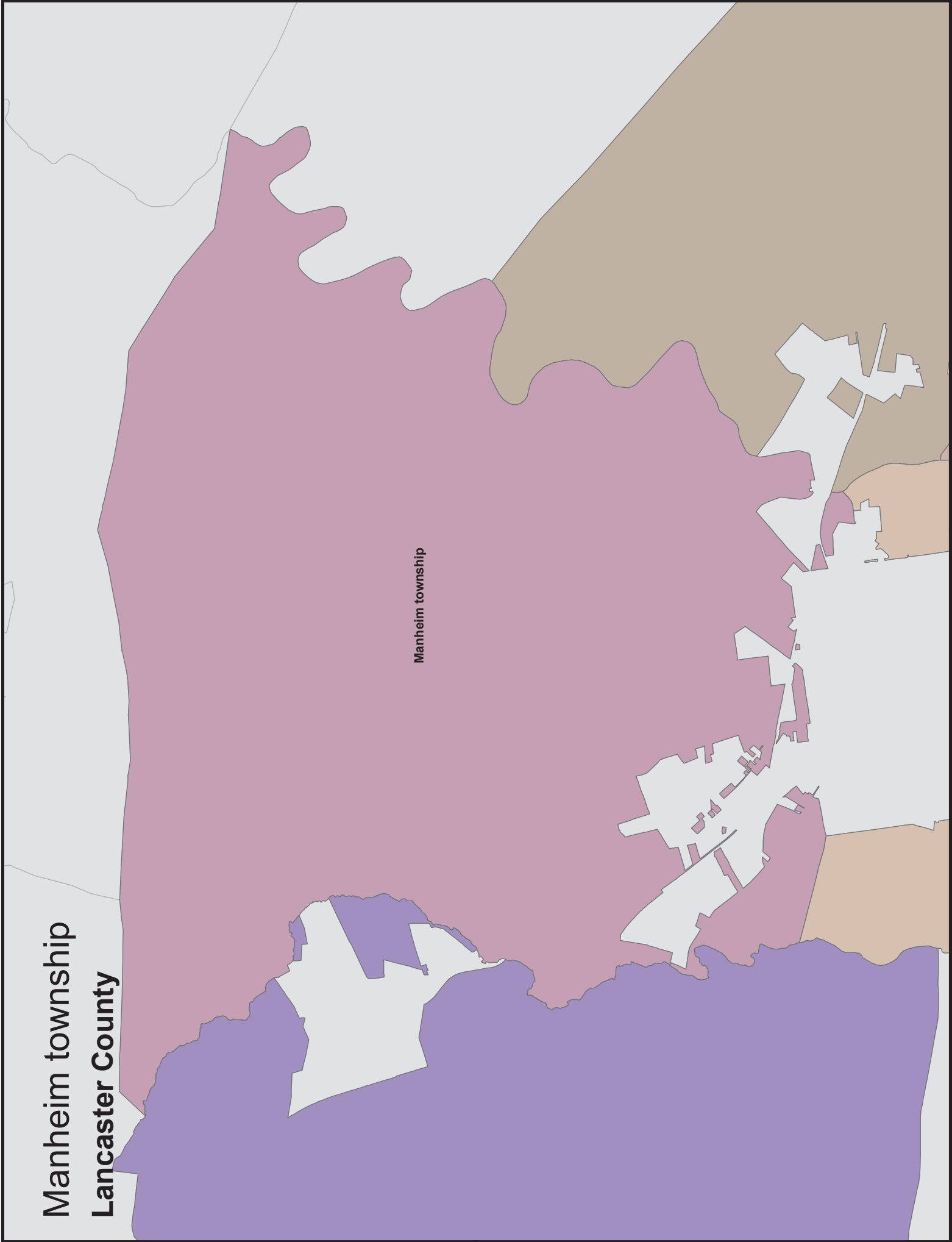
Mount Joy township

Mount Joy township
Lancaster County
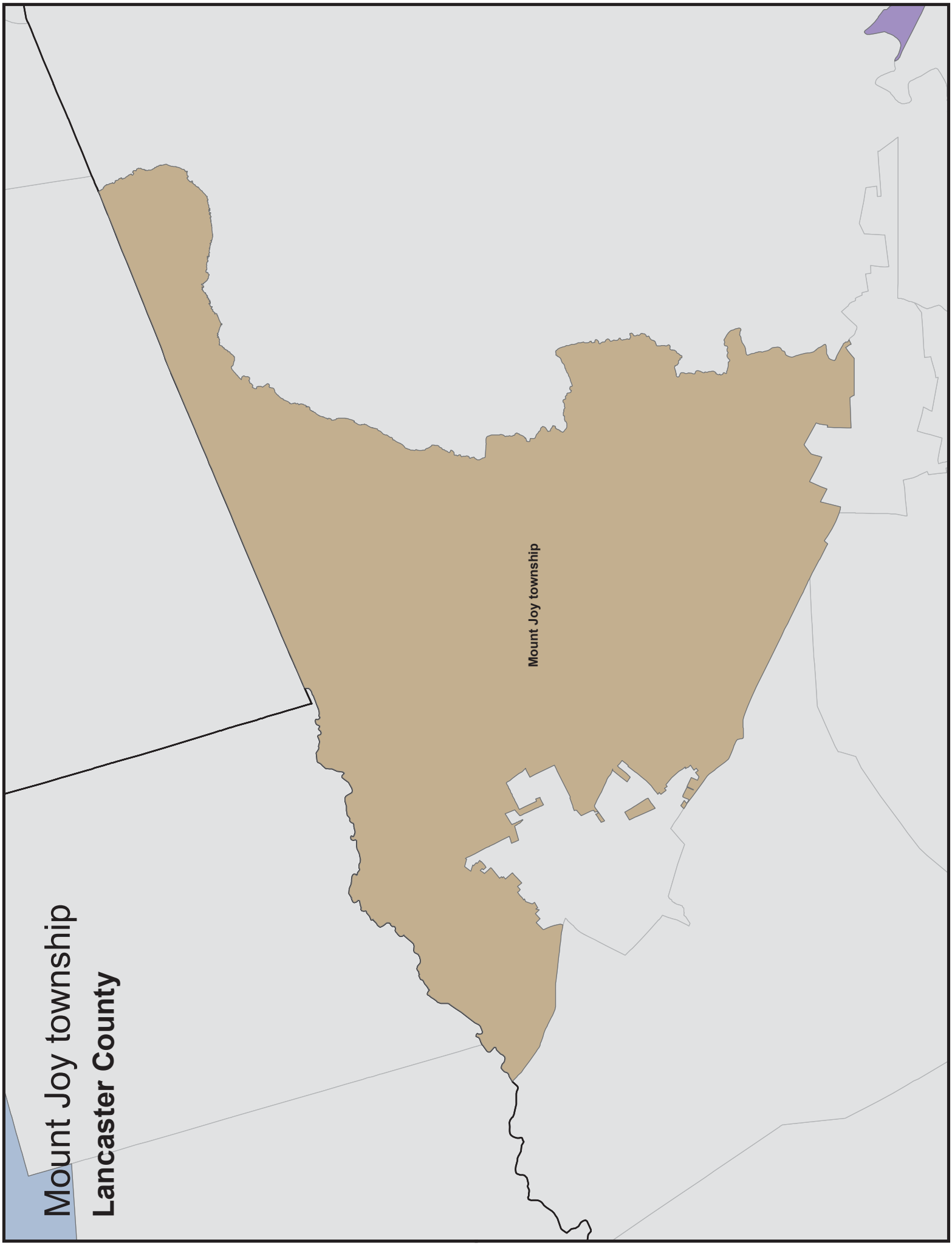
West Lampeter township

West Lampeter township
Lancaster County
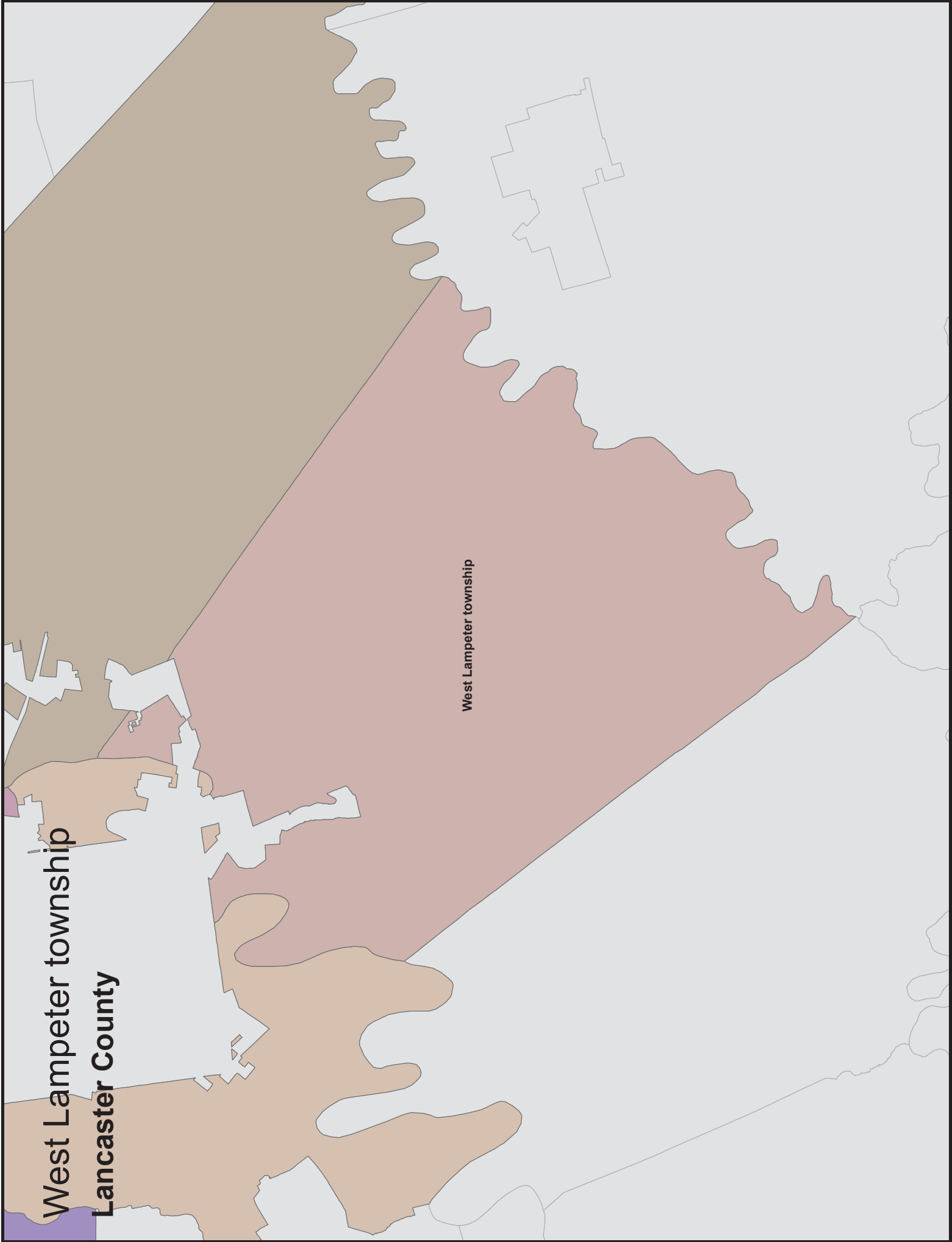
Taylor township
Lawrence County

Taylor township
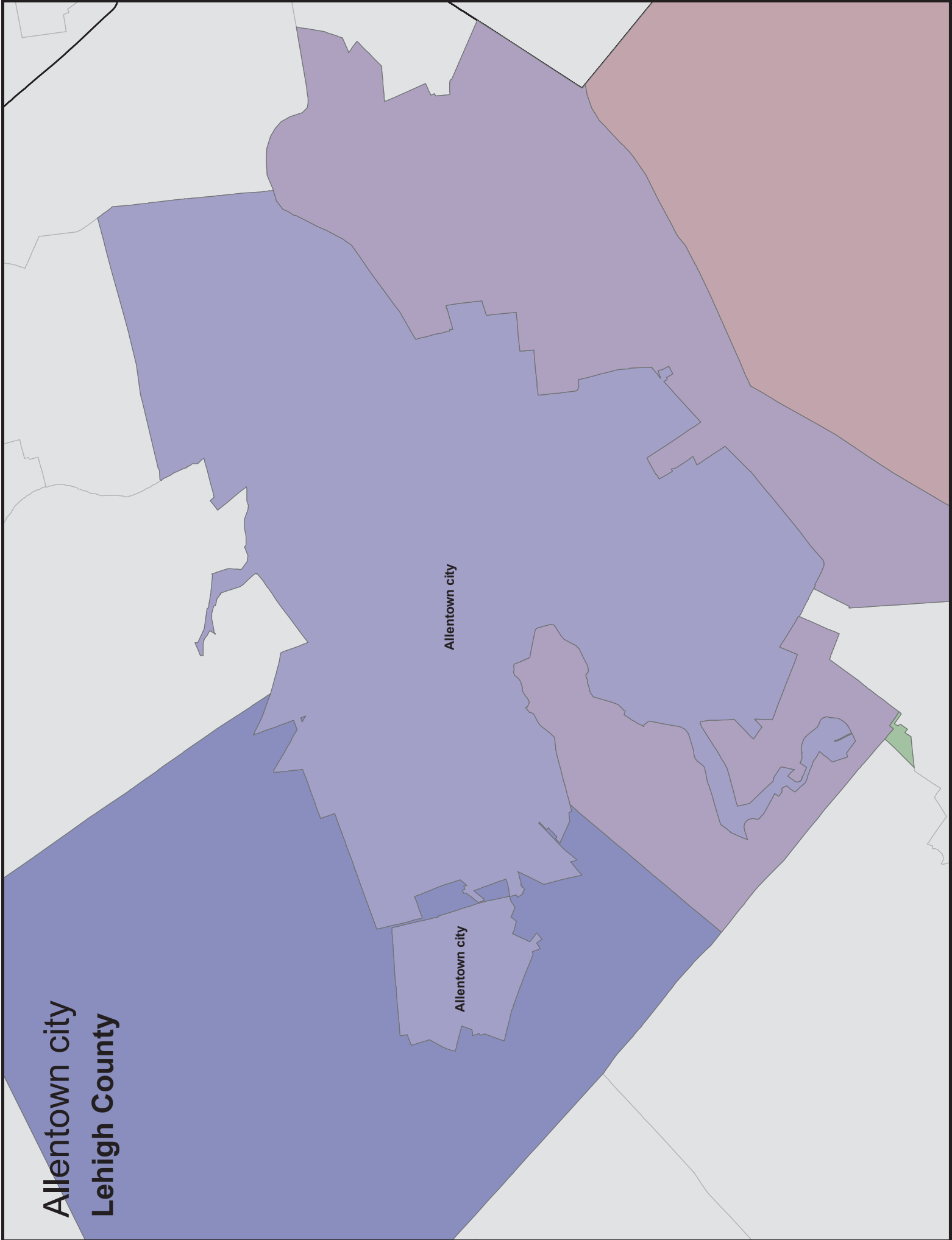
Allentown city
Lehigh County

Allentown city

Allentown city

Salisbury township

Salisbury township

Salisbury township
Lehigh County
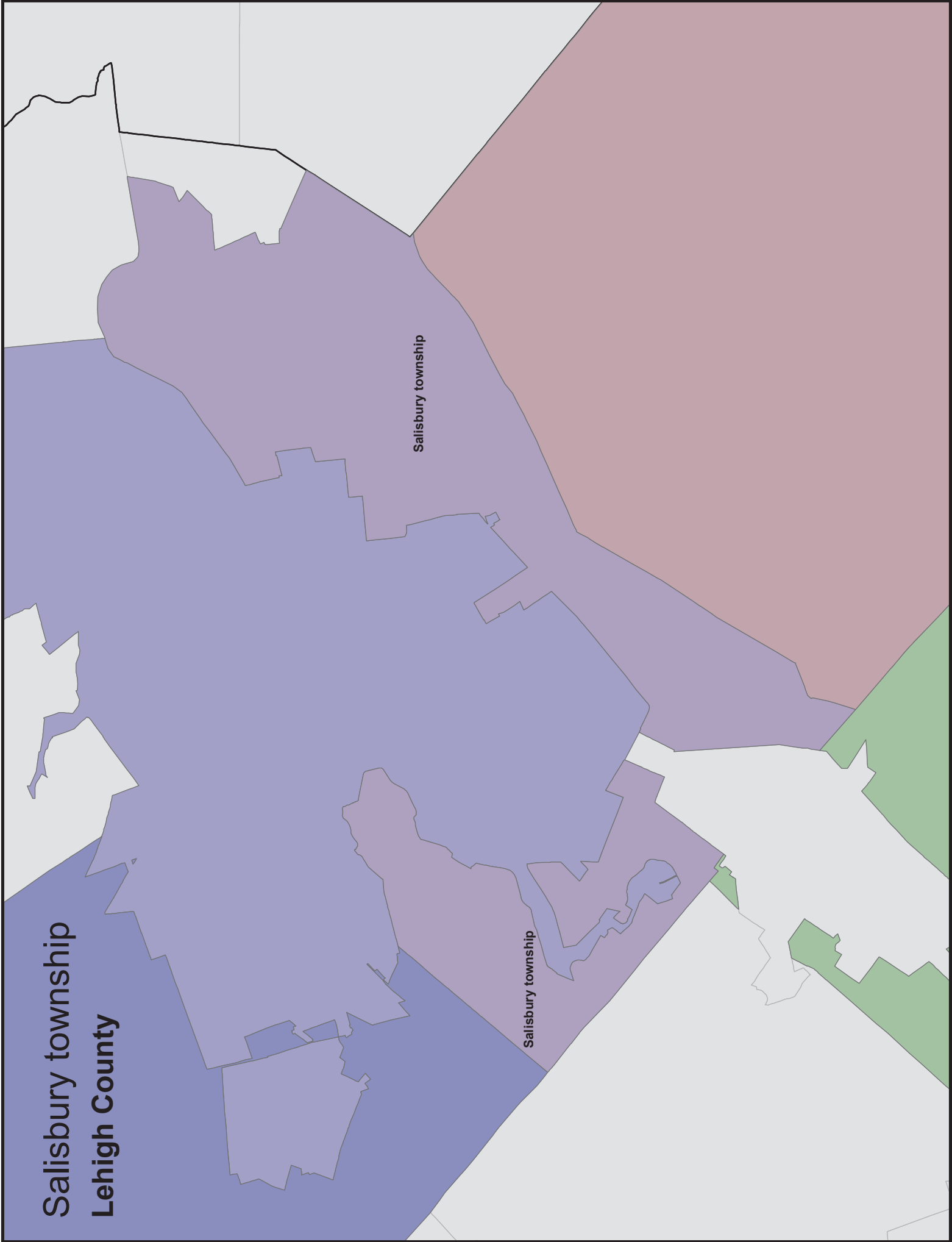
South Whitehall township

Lehigh County

South Whitehall township

Upper Milford township
Lehigh County

Upper Milford township
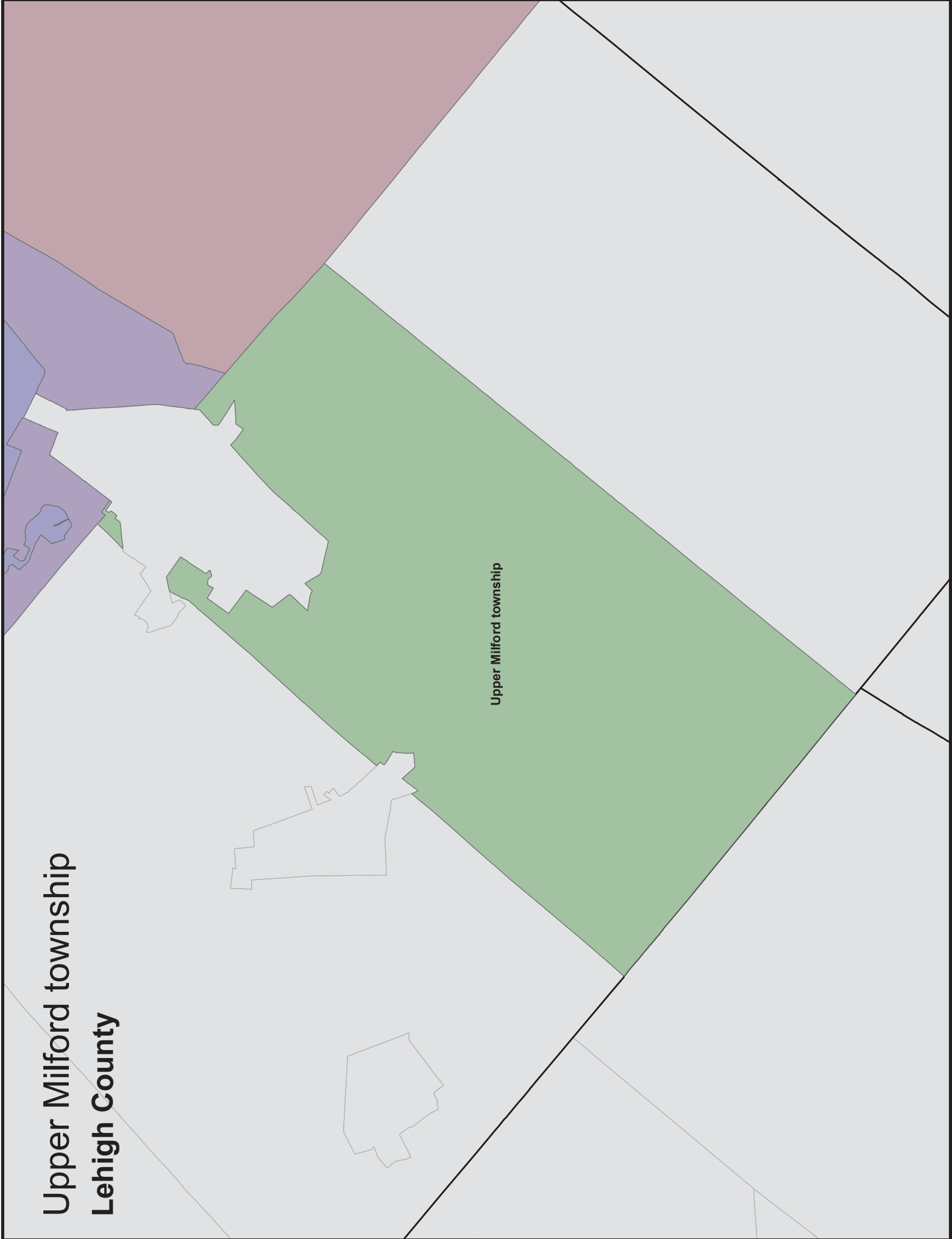
Upper Saucon township

Lehigh County

Upper Saucon township
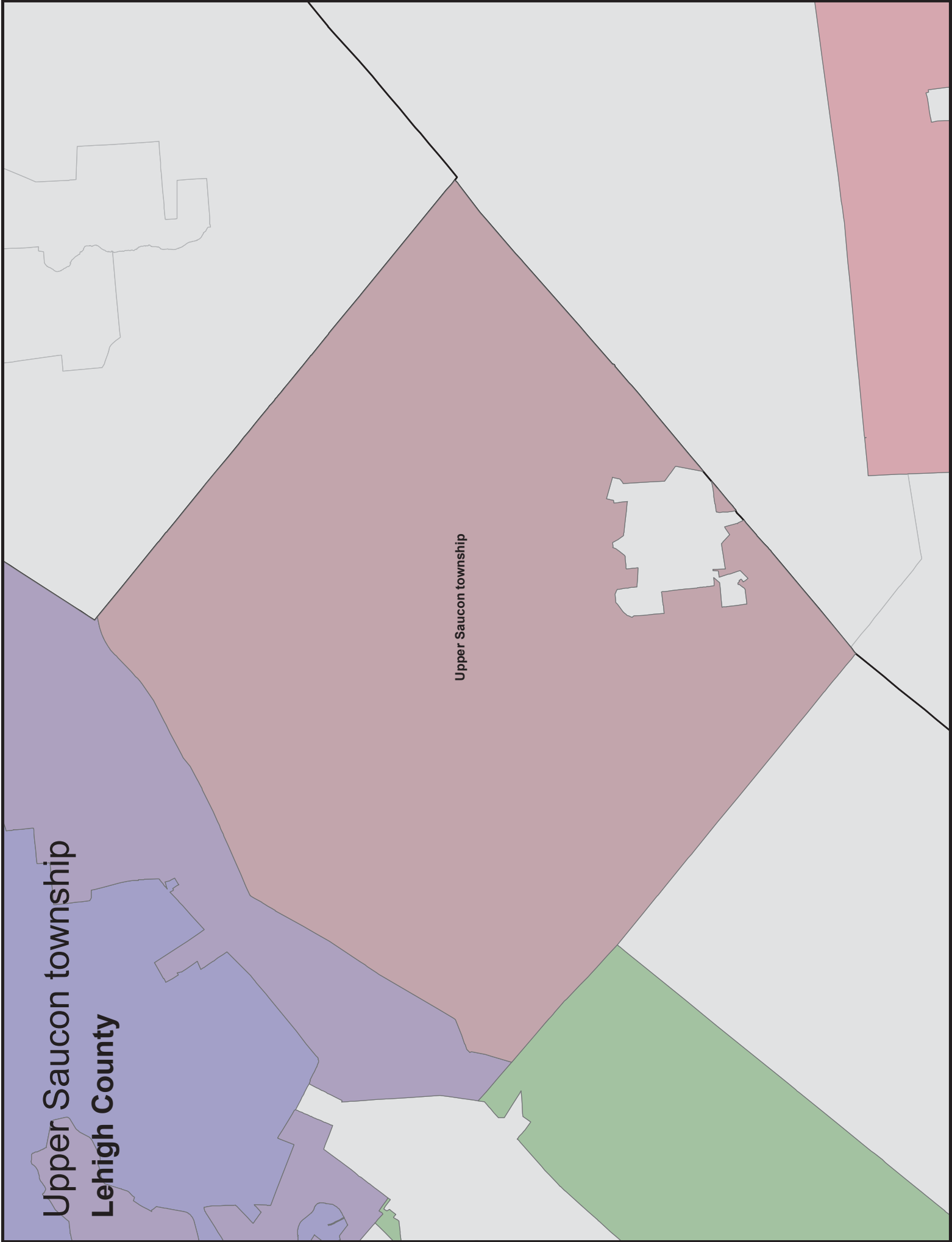
Foster township
Luzerne County

Foster township
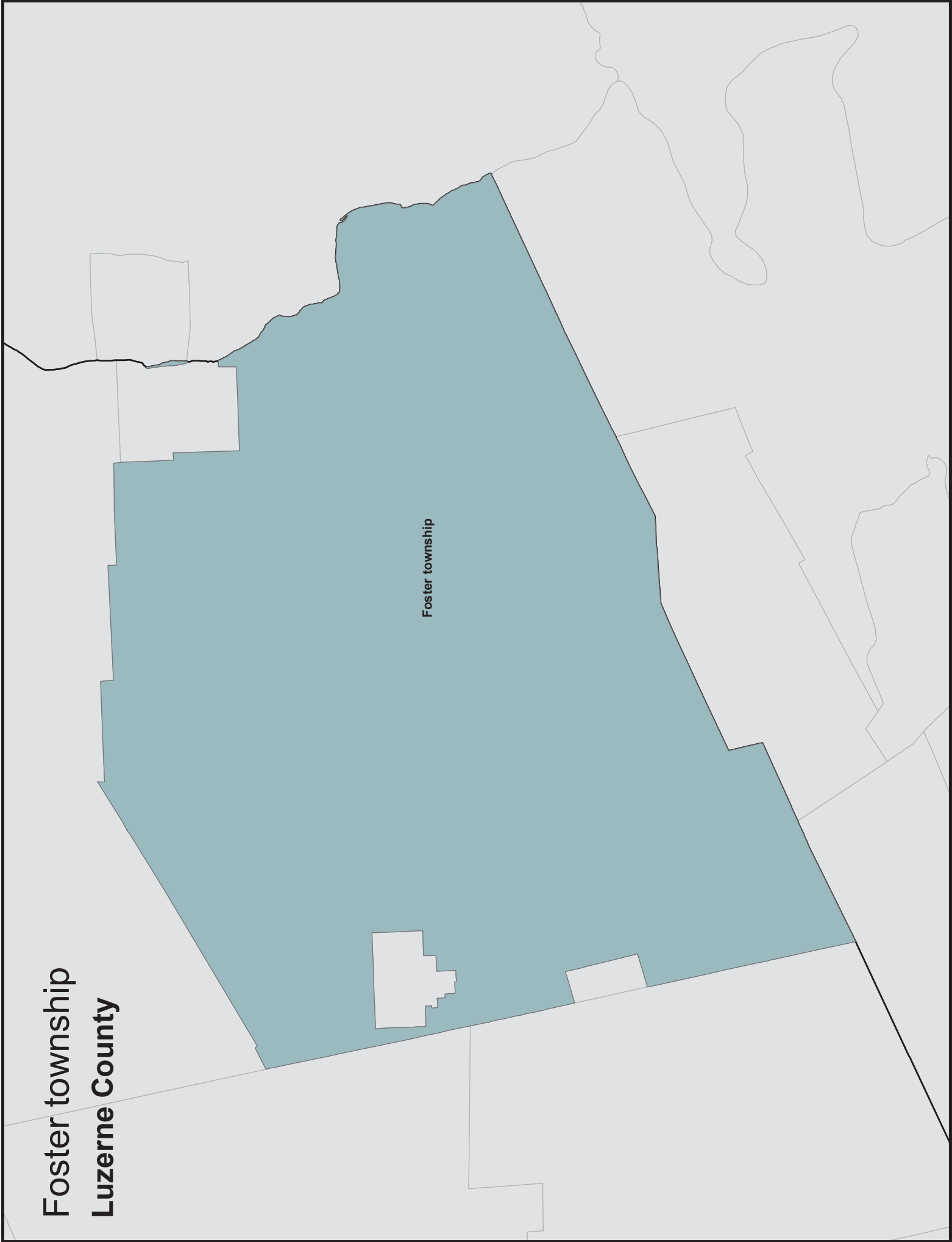
Hermitage city
Mercer County

Hermitage city
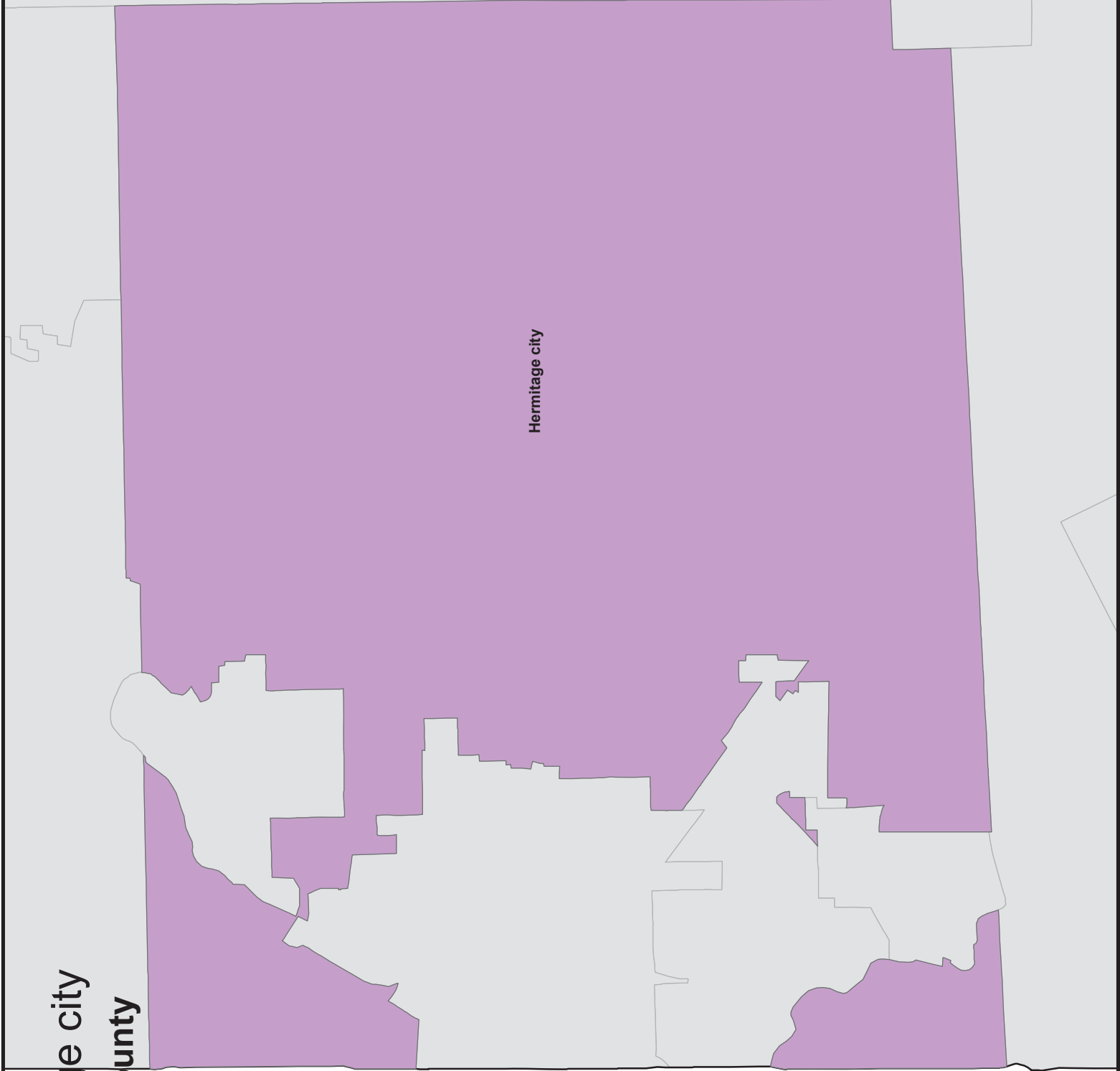
Pine township
Mercer County

Pine township
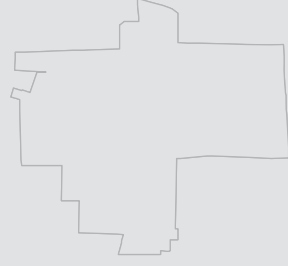
North Manheim township

North Manheim township
Schuylkill County
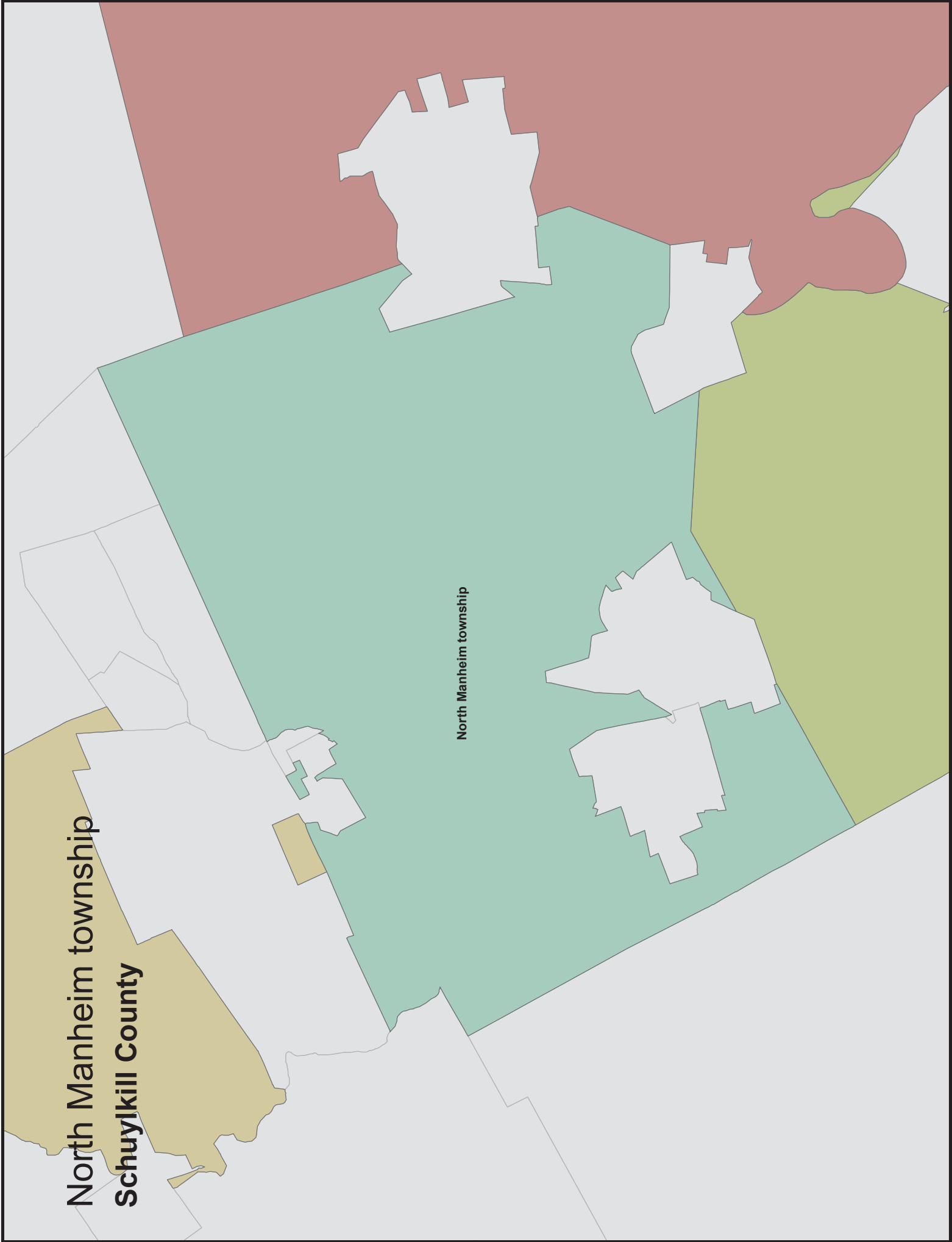
Norwegian township
Schuylkill County

Norwegian township
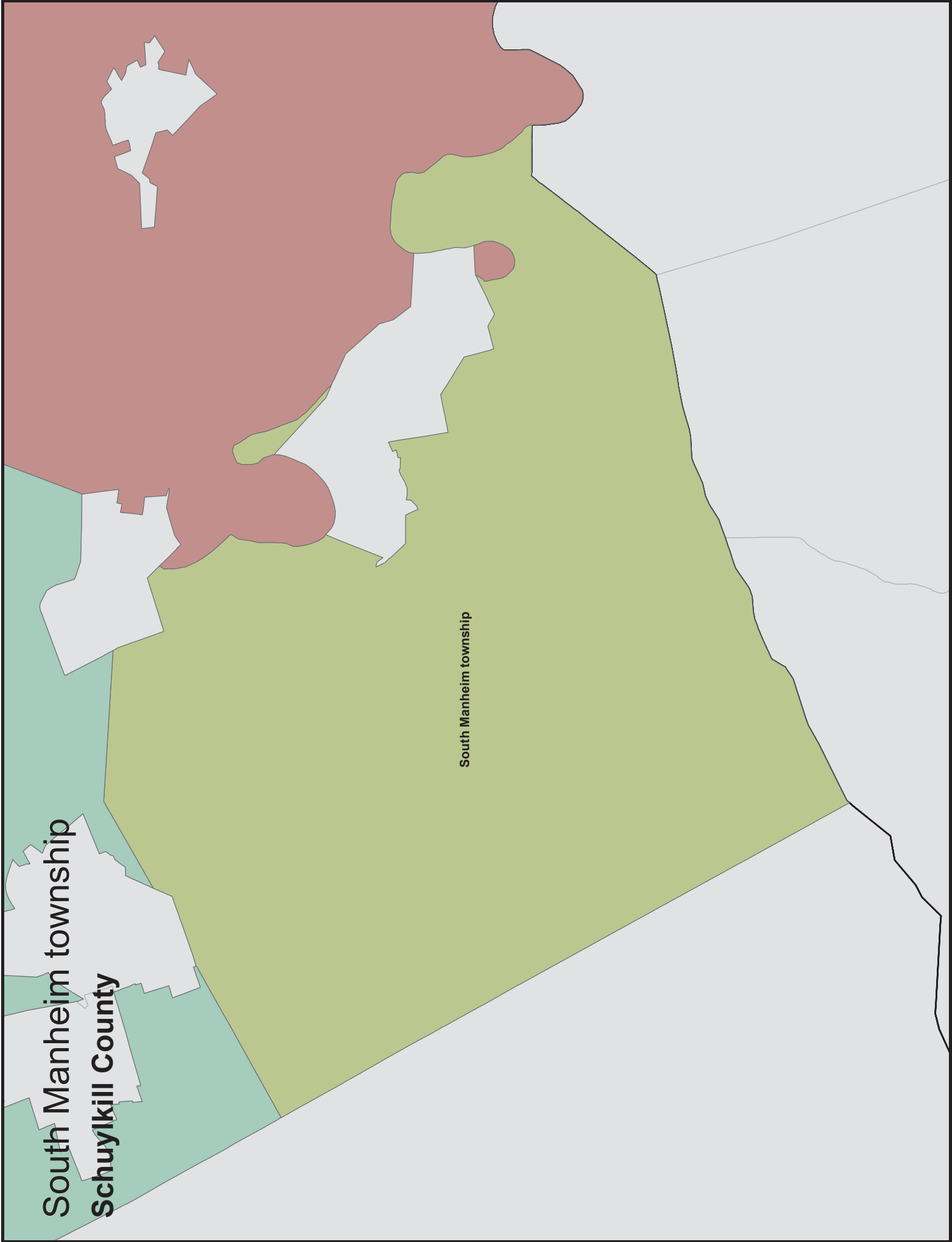
South Manheim township

Schuylkill County

South Manheim township

South Manheim township

West Brunswick township

West Brunswick township

Schuylkill County

West Brunswick township
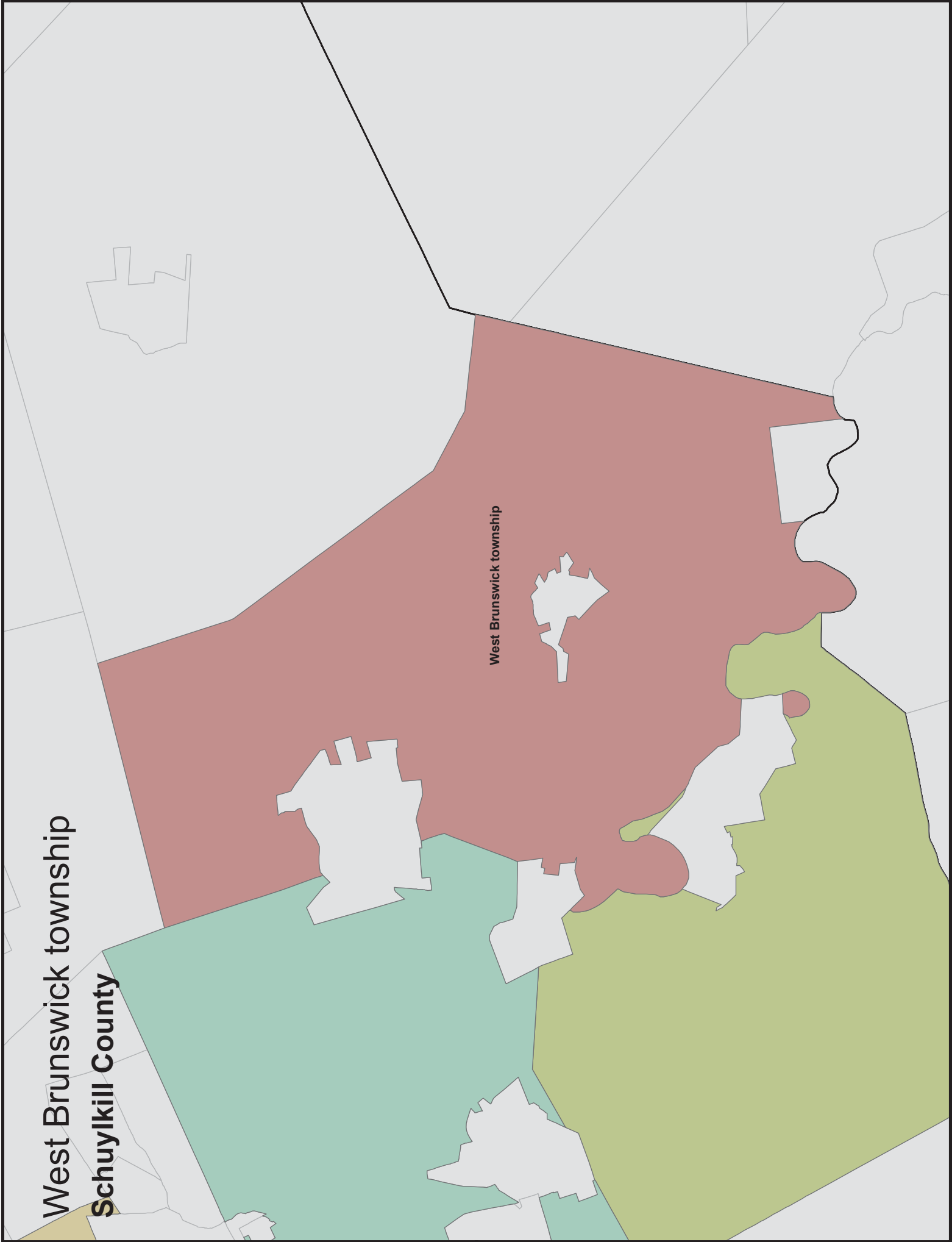
West Mahanoy township
Schuylkill County

West Mahanoy township

West Mahanoy township

Larimer township
Somerset County

Larimer township

Middlecreek township
Somerset County

Middlecreek township
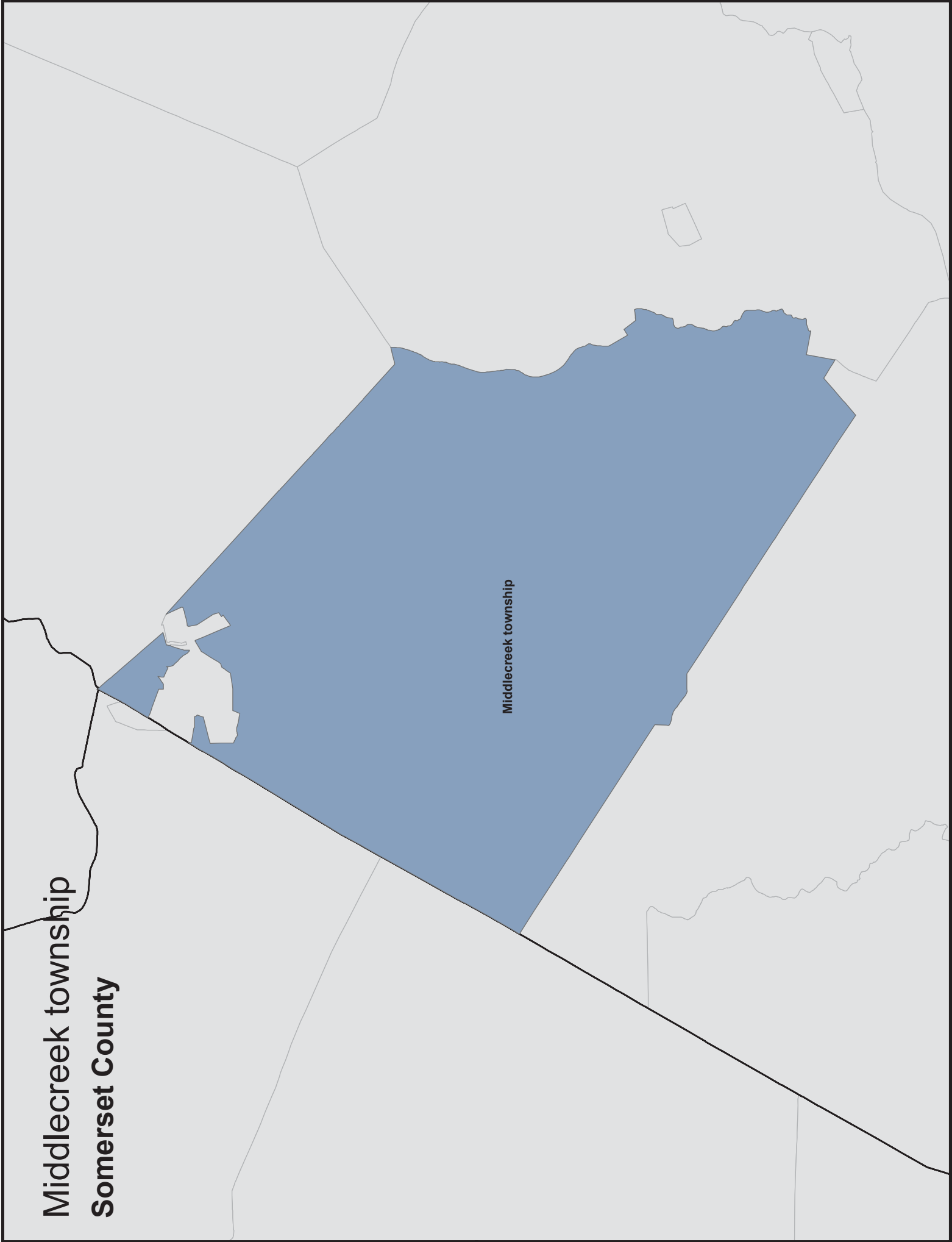
West Buffalo township

Union County

West Buffalo township

Sandycreek township
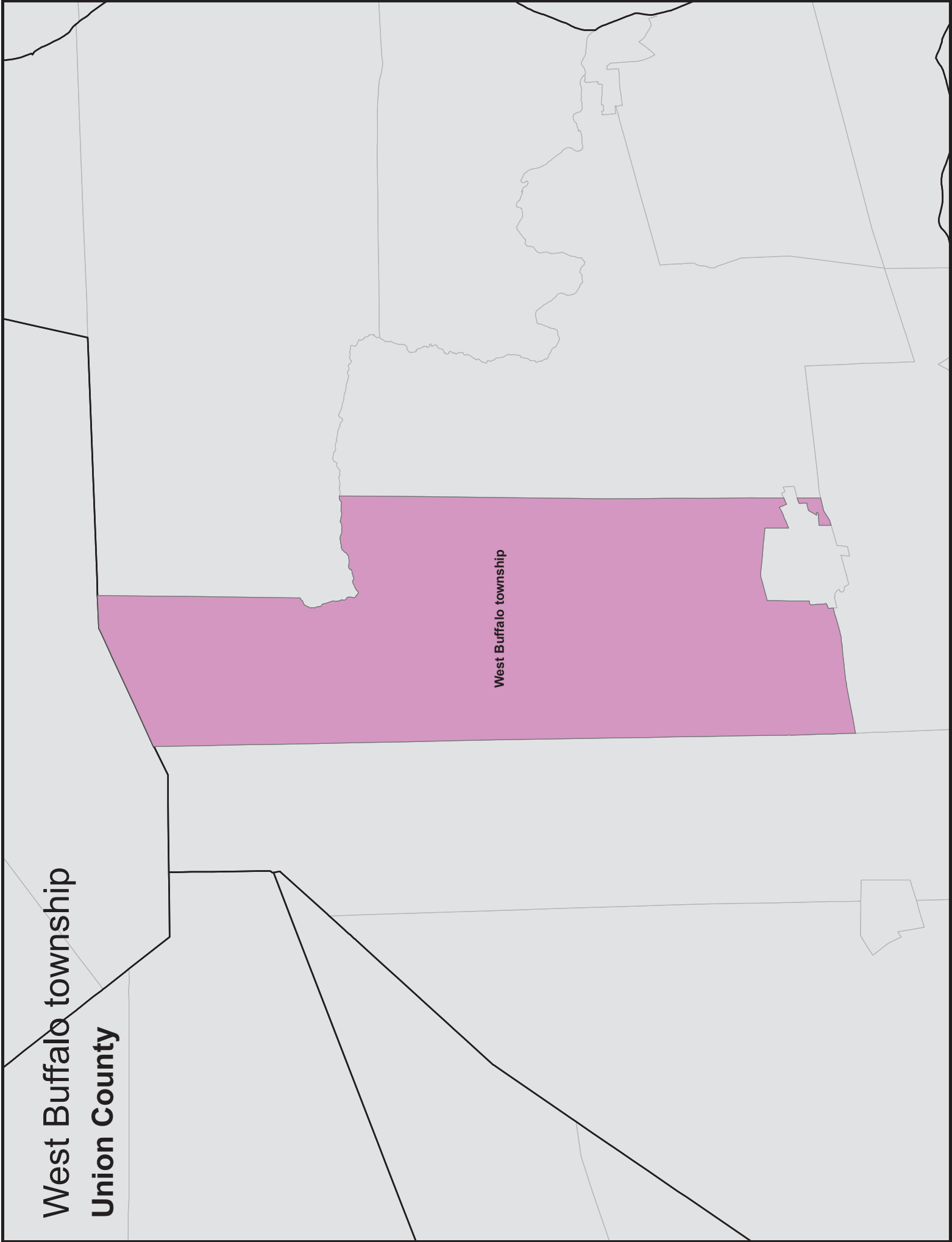
Sandycreek township
Venango County

Triumph township

Warren County

Triumph township

Hopewell township
York County

Hopewell township

Spring Garden township
York County

Spring Garden township

Spring Garden township
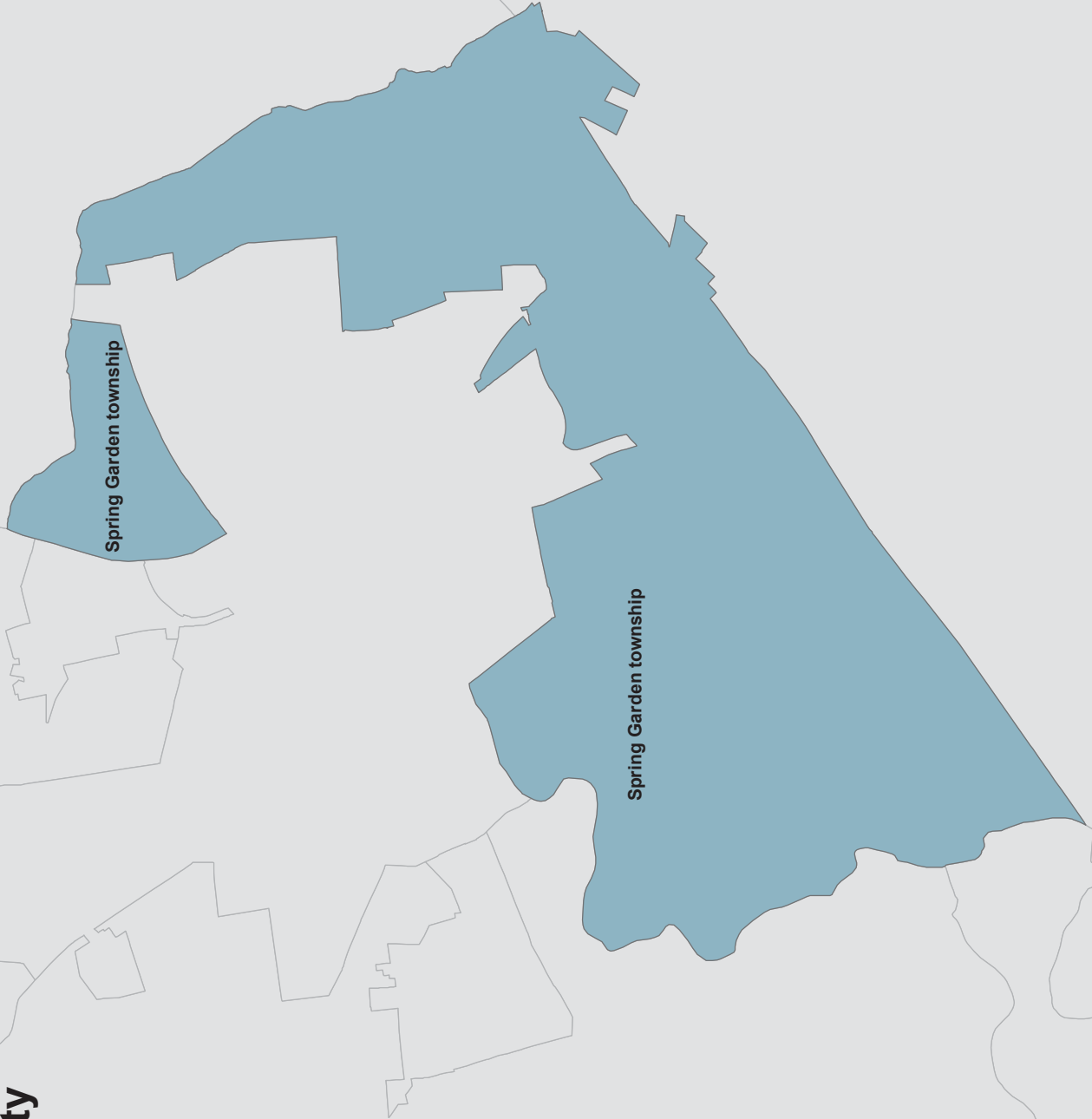
Non-Contigous VTDs Present in Final 2011 Submission

Total: 95
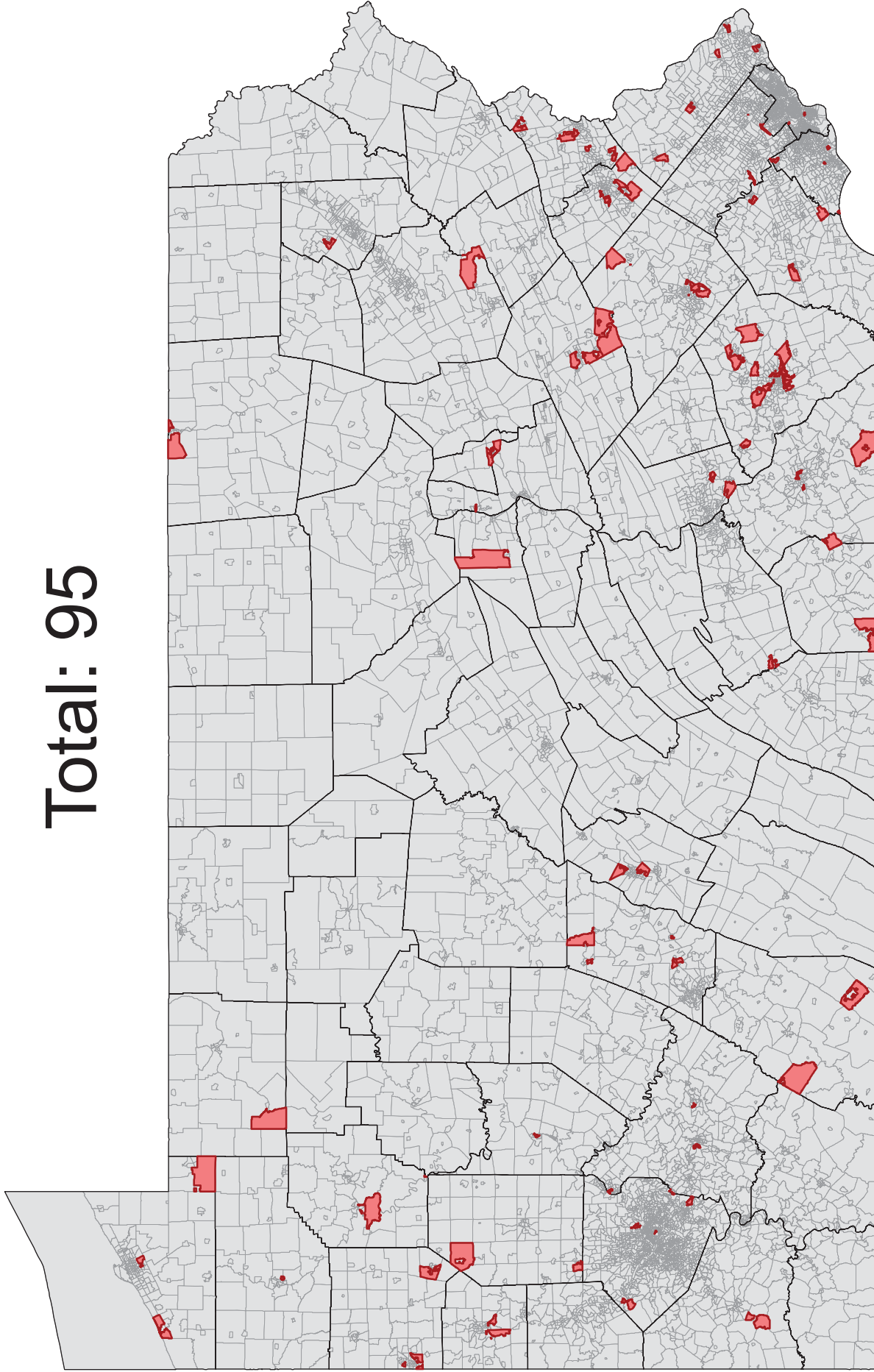
BERWICK TWP Voting District

Adams County

BERWICK TWP Voting District
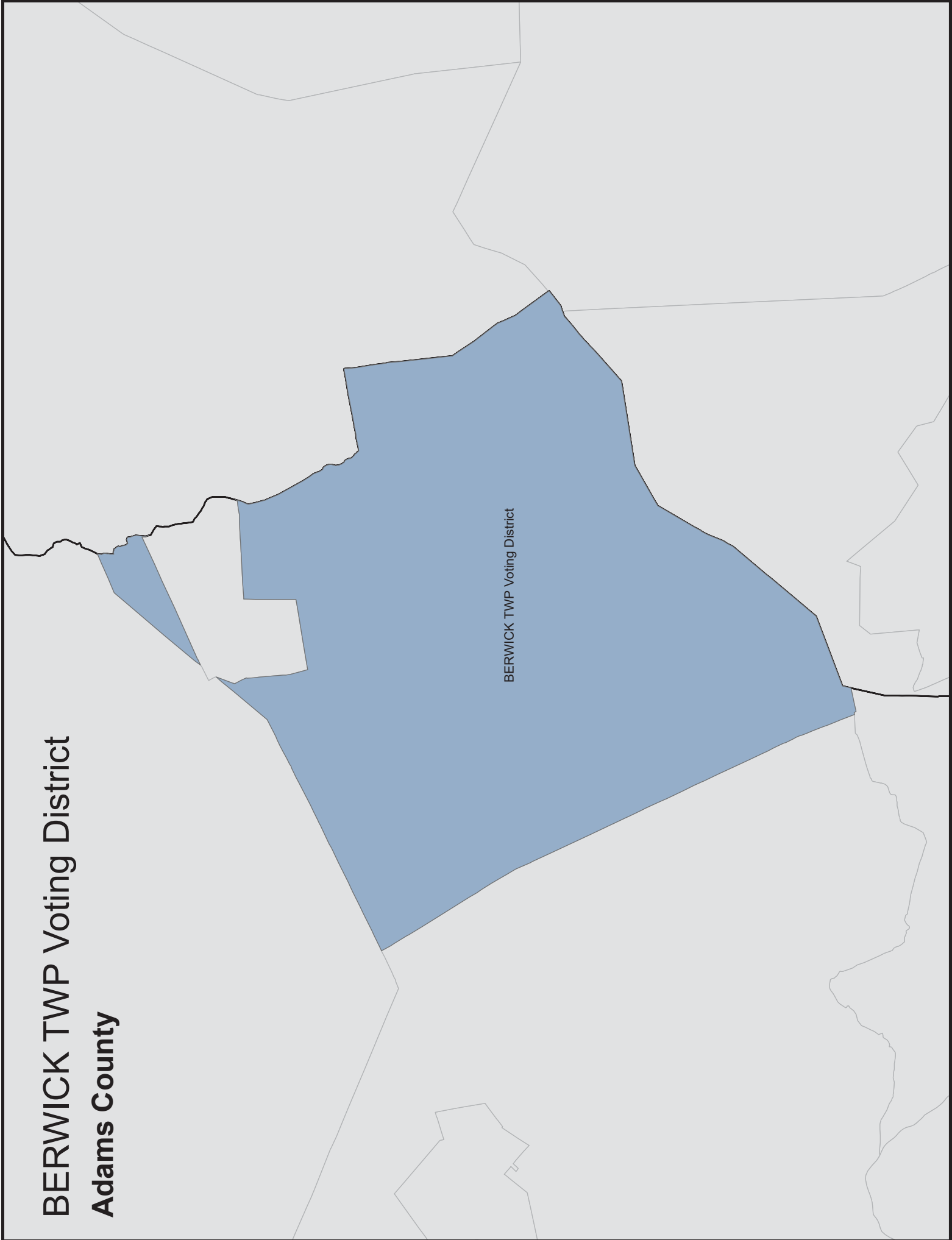
LIBERTY TWP Voting District
Adams County

LIBERTY TWP Voting District

LIBERTY TWP Voting District

MOON TWP DIST 09

MOON TWP DIST 09

MOON TWP DIST 09
Allegheny County

O HARA TWP WD 04 DIST 02
Allegheny County
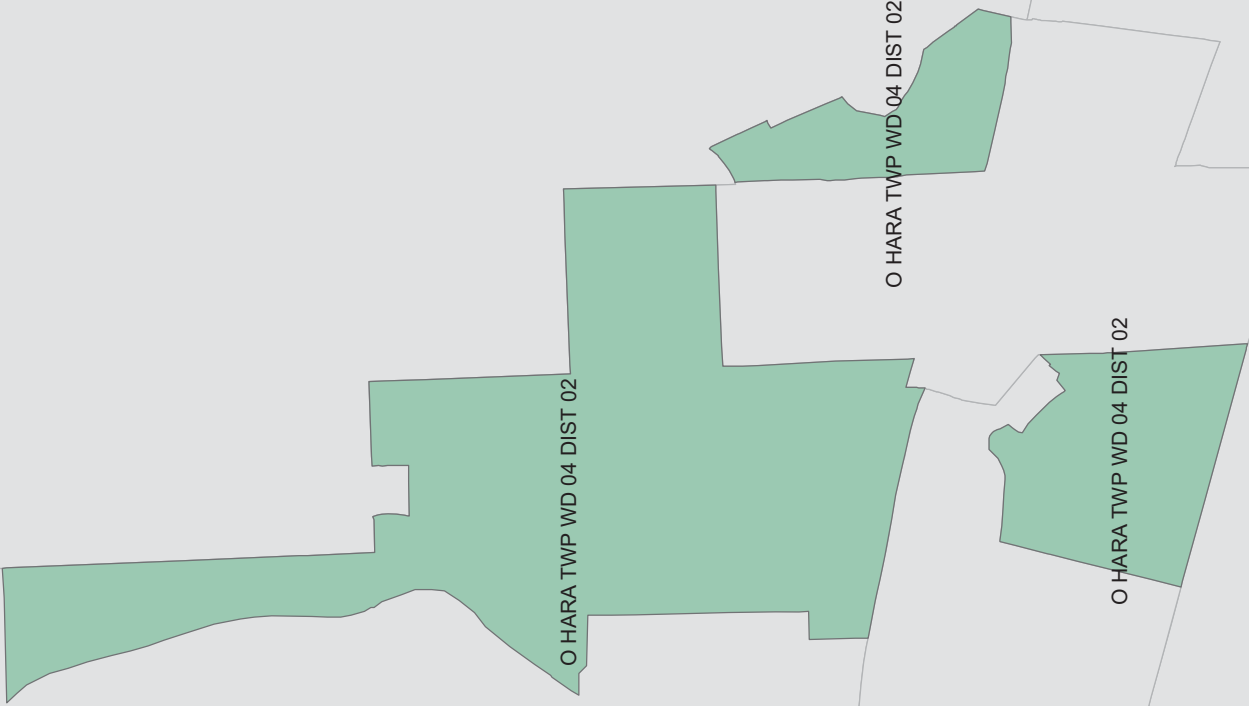
O HARA TWP WD 04 DIST 02

O HARA TWP WD 04 DIST 02

O HARA TWP WD 04 DIST 02

PITTSBURGH WD 14 DIST 38
Allegheny County

PITTSBURGH WD 14 DIST 38

PITTSBURGH WD 14 DIST 38
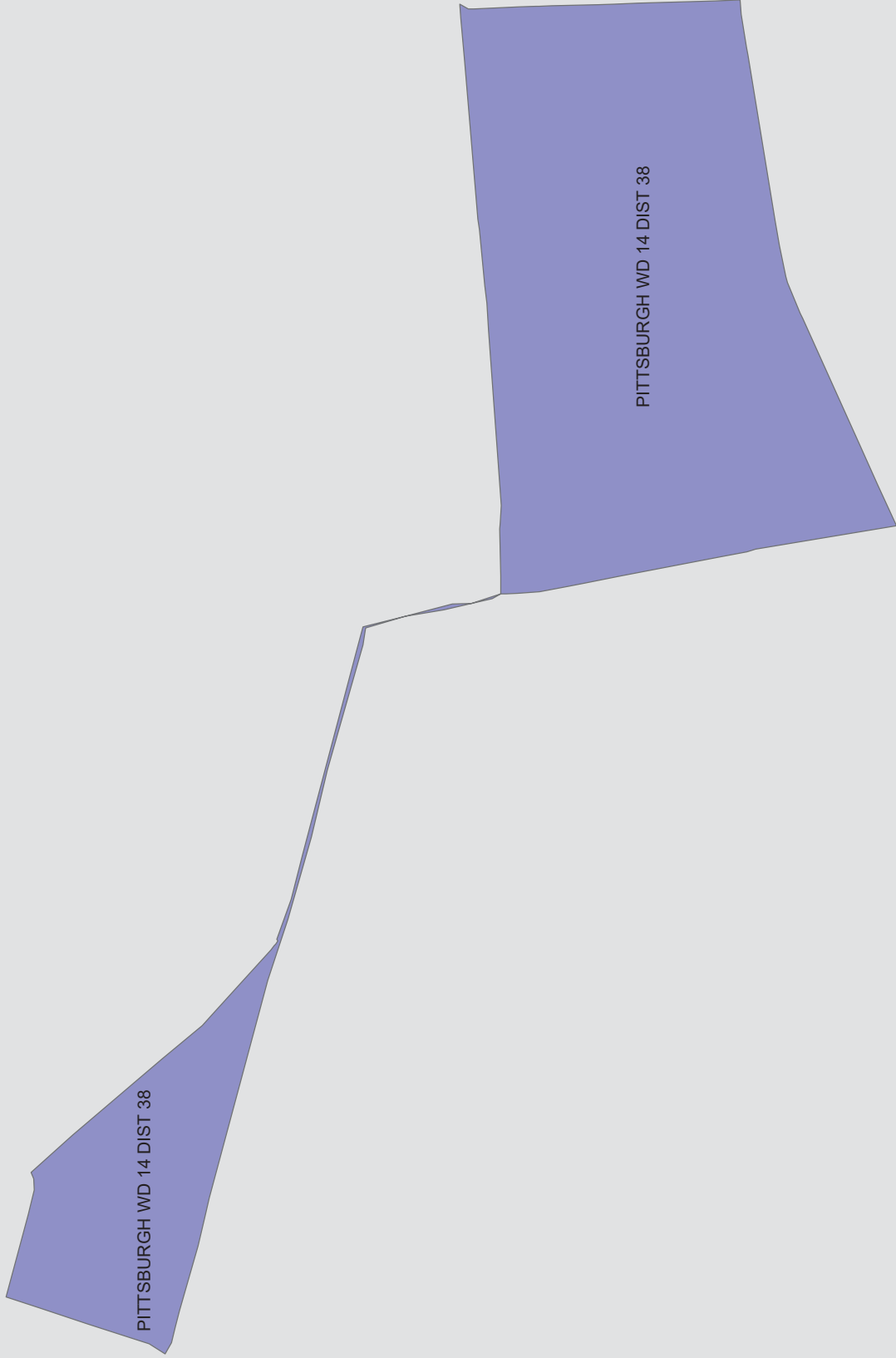
TRAFFORD DIST 01
Allegheny County
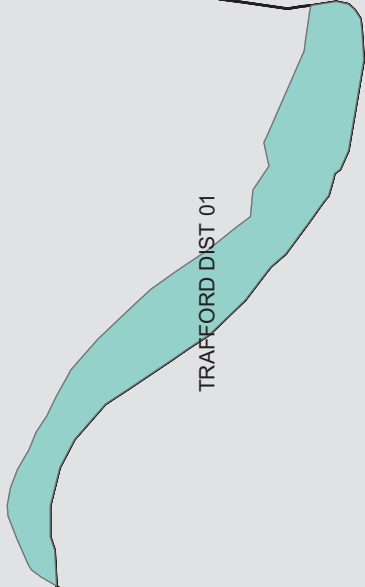
TRAFFORD DIST 01
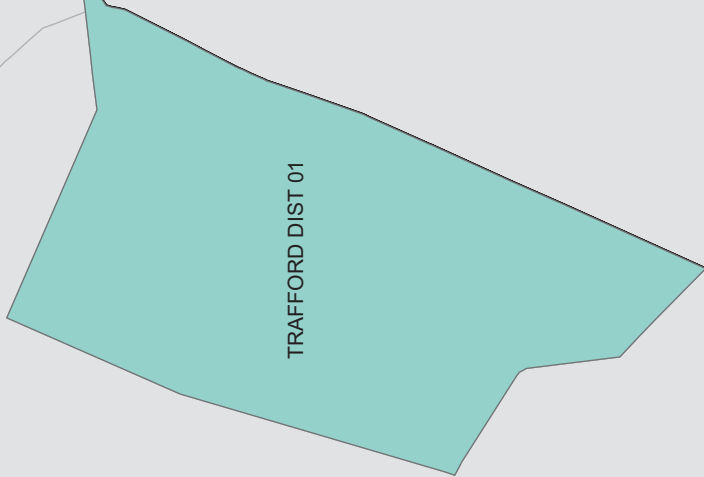
TRAFFORD DIST 01

TRAFFORD DIST 01

WHITE OAK DIST 07

Allegheny County

WHITE OAK DIST 07
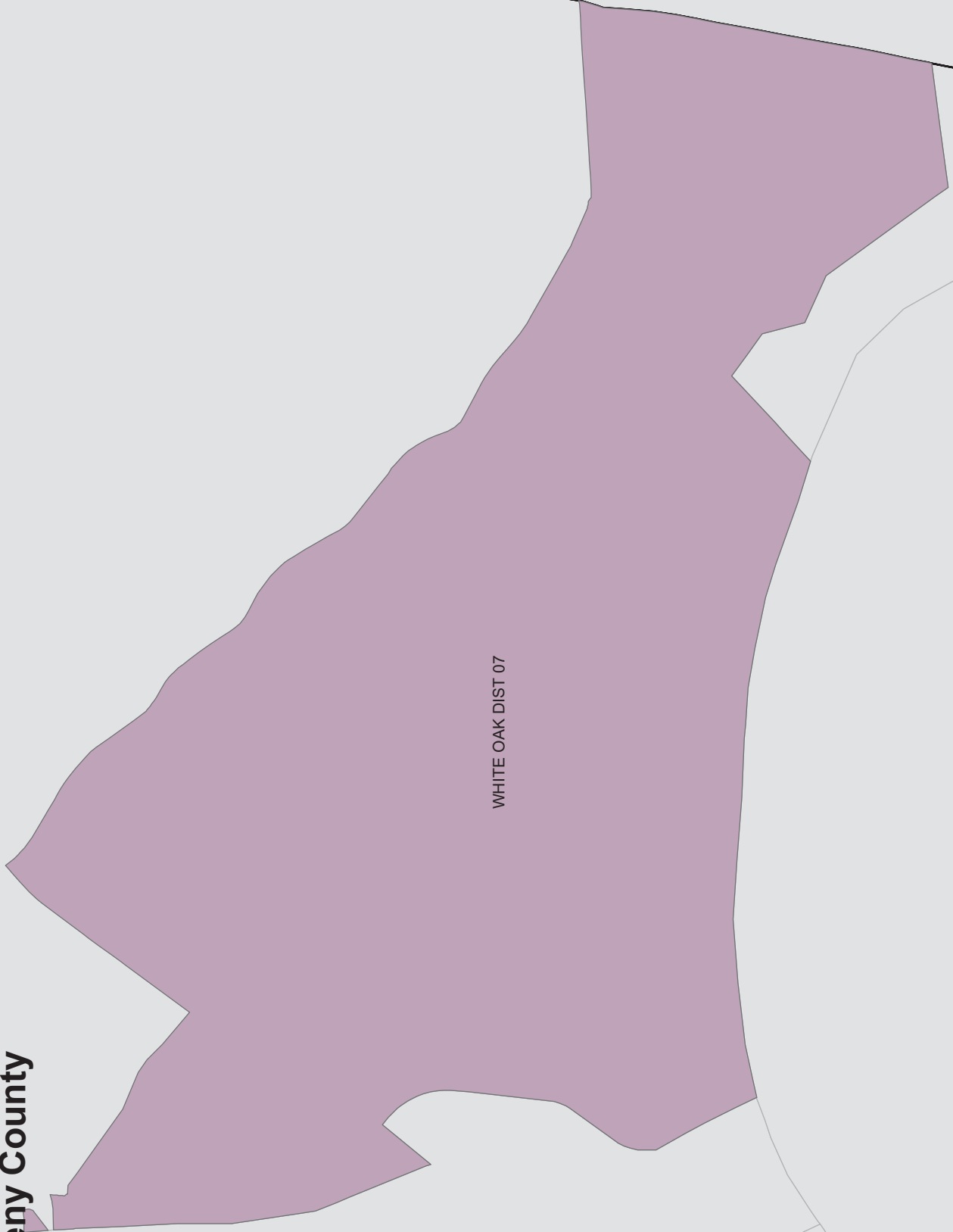
KITTANNING WD 03

Armstrong County

KITTANNING WD 03

KITTANNING WD 03

CUMRU TWP DIST 01

Berks County

CUMRU TWP DIST 01
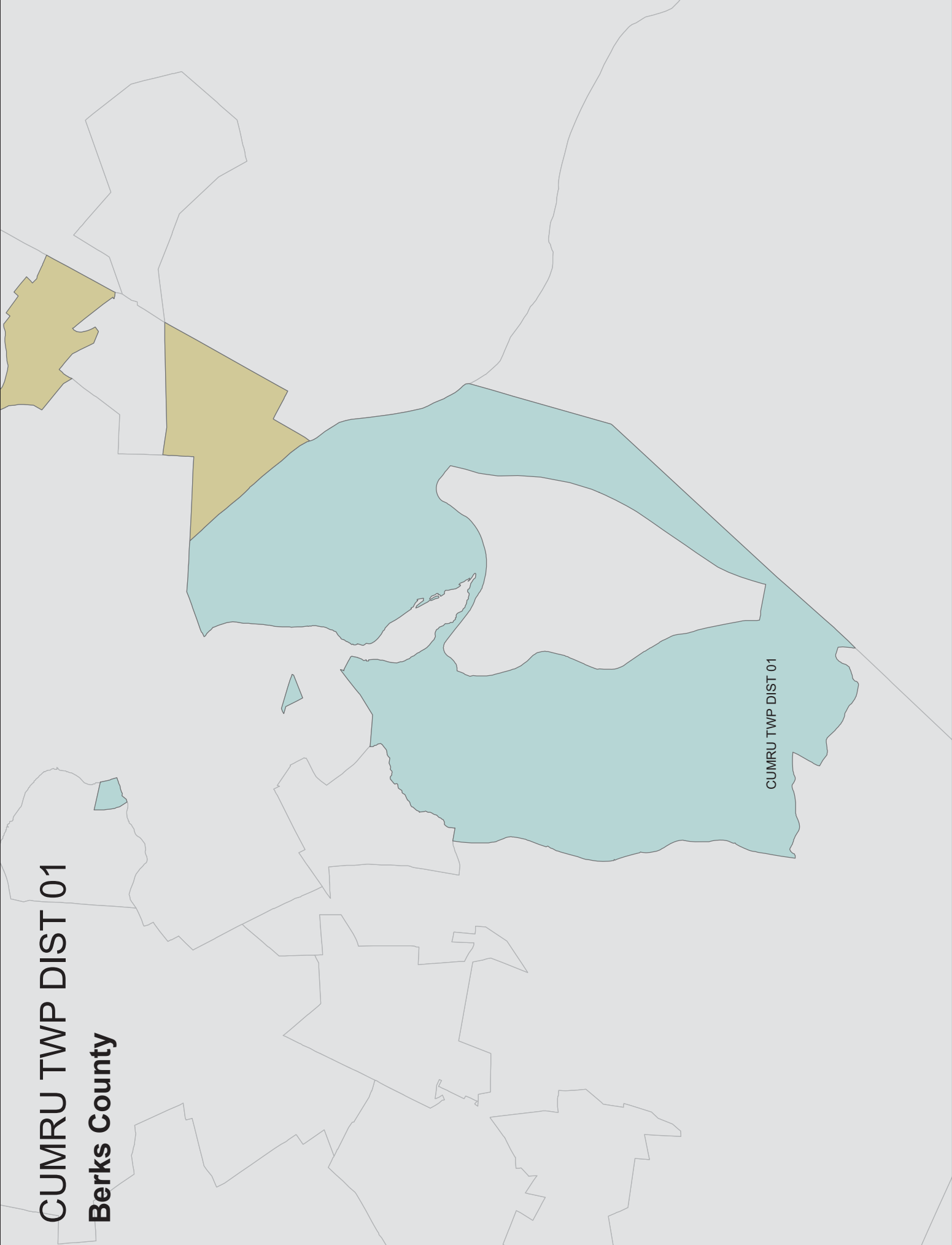
GREENWICH TWP DIST 02

Berks County

GREENWICH TWP DIST 02

LOWER ALSACE TWP DIST 01

Berks County

LOWER ALSACE TWP DIST 01

LOWER ALSACE TWP DIST 01
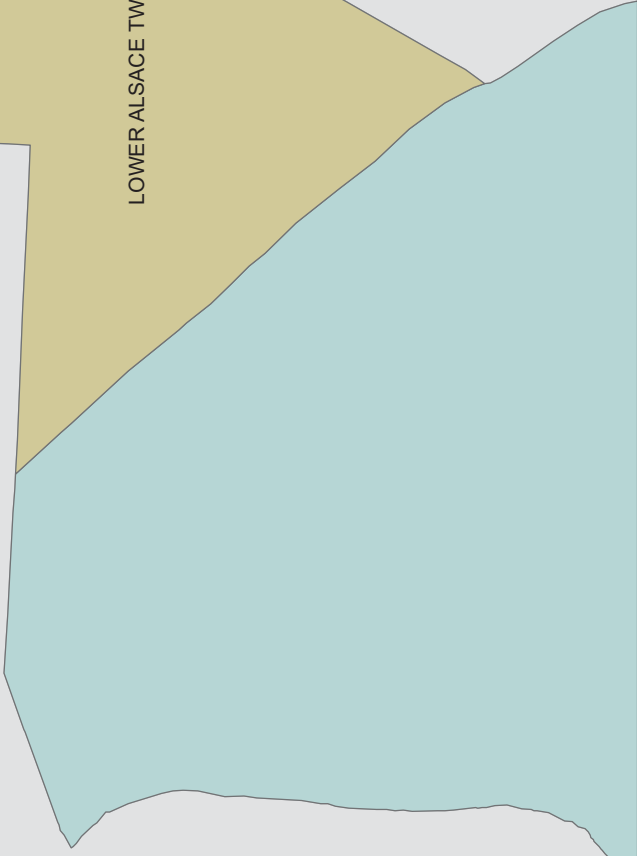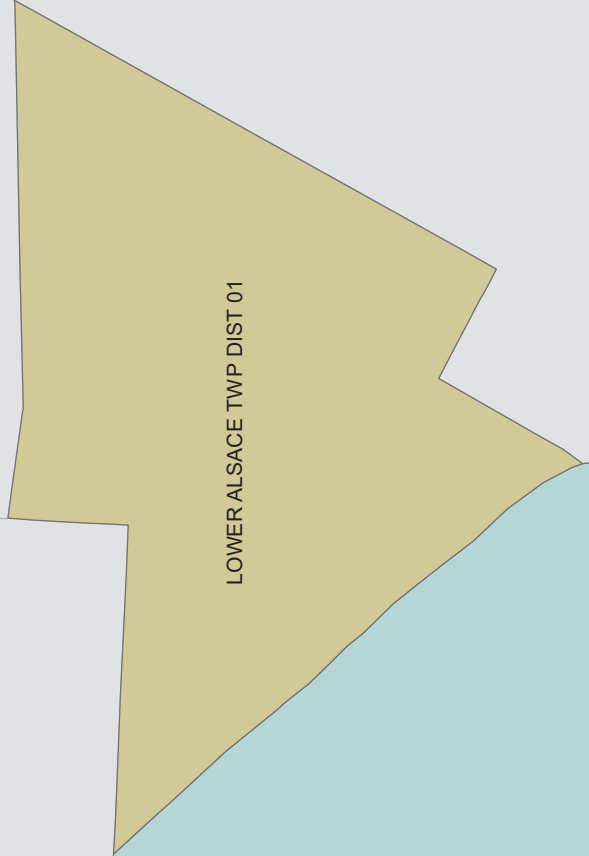
LOGAN TWP DIST 02
Blair County

LOGAN TWP DIST 02

LOGAN TWP DIST 02
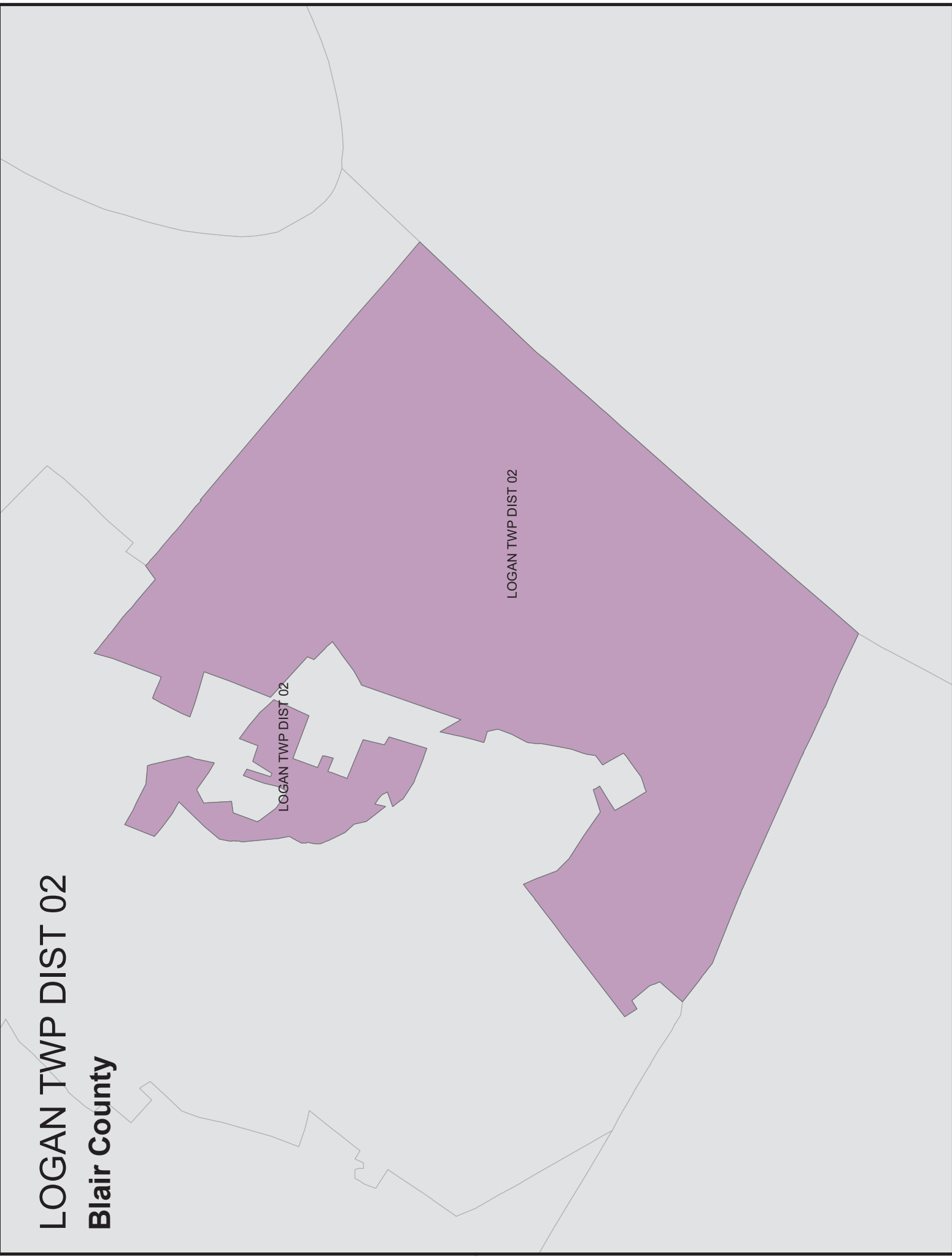
LOGAN TWP DIST 03
Blair County

LOGAN TWP DIST 03

ATHENS TWP DIST 01

Bradford County

ATHENS TWP DIST 01

ATHENS TWP DIST 01
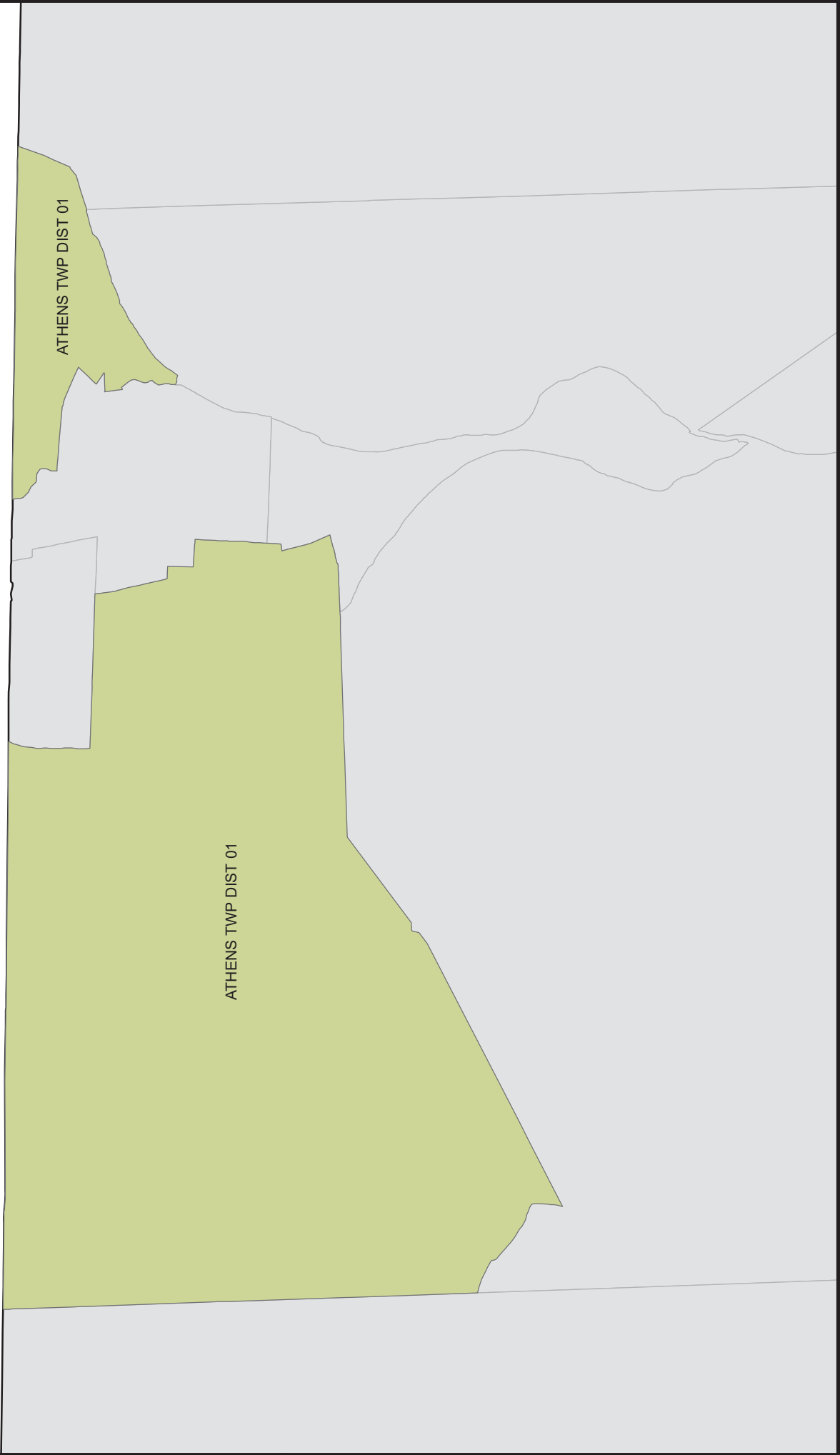
BRISTOL TWP WD 03 DIST 03
Bucks County
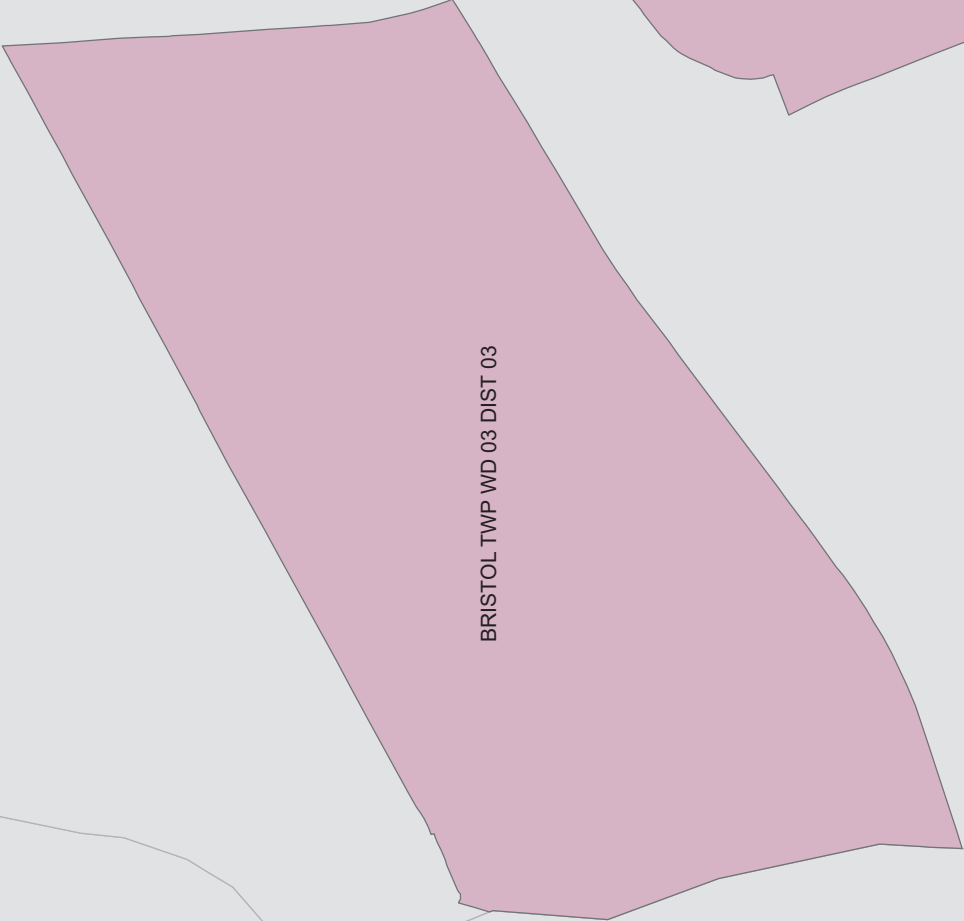
BRISTOL TWP WD 03 DIST 03

BRISTOL TWP WD 03 DIST 03

DOYLESTOWN TWP WD 06

Bucks County

DOYLESTOWN TWP WD 06
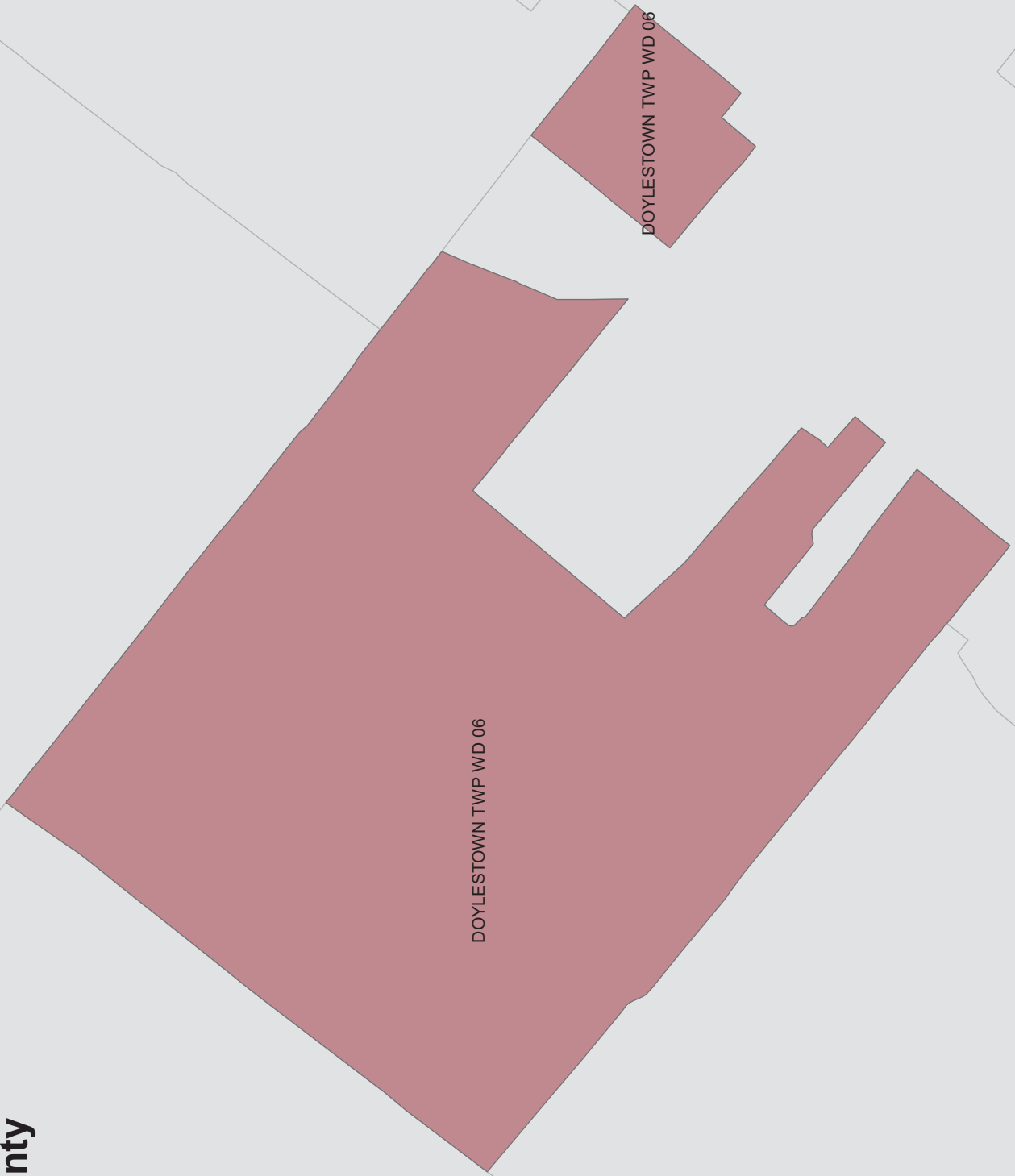
DOYLESTOWN TWP WD 06

DOYLESTOWN TWP WD 06

FALLS TWP WD 01 DIST 05

Bucks County

FALLS TWP WD 01 DIST 05

FALLS TWP WD 01 DIST 05

NEWTOWN TWP DIST 06

Bucks County

NEWTOWN TWP DIST 06

RICHLAND TWP VTD 04

Bucks County

RICHLAND TWP VTD 04

CRANBERRY TWP VTD EAST ED 03
Butler County

CRANBERRY TWP VTD EAST ED 03

SLIPPERY ROCK TWP Voting District

Butler County

SLIPPERY ROCK TWP Voting District
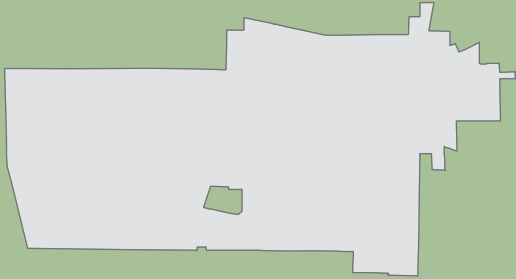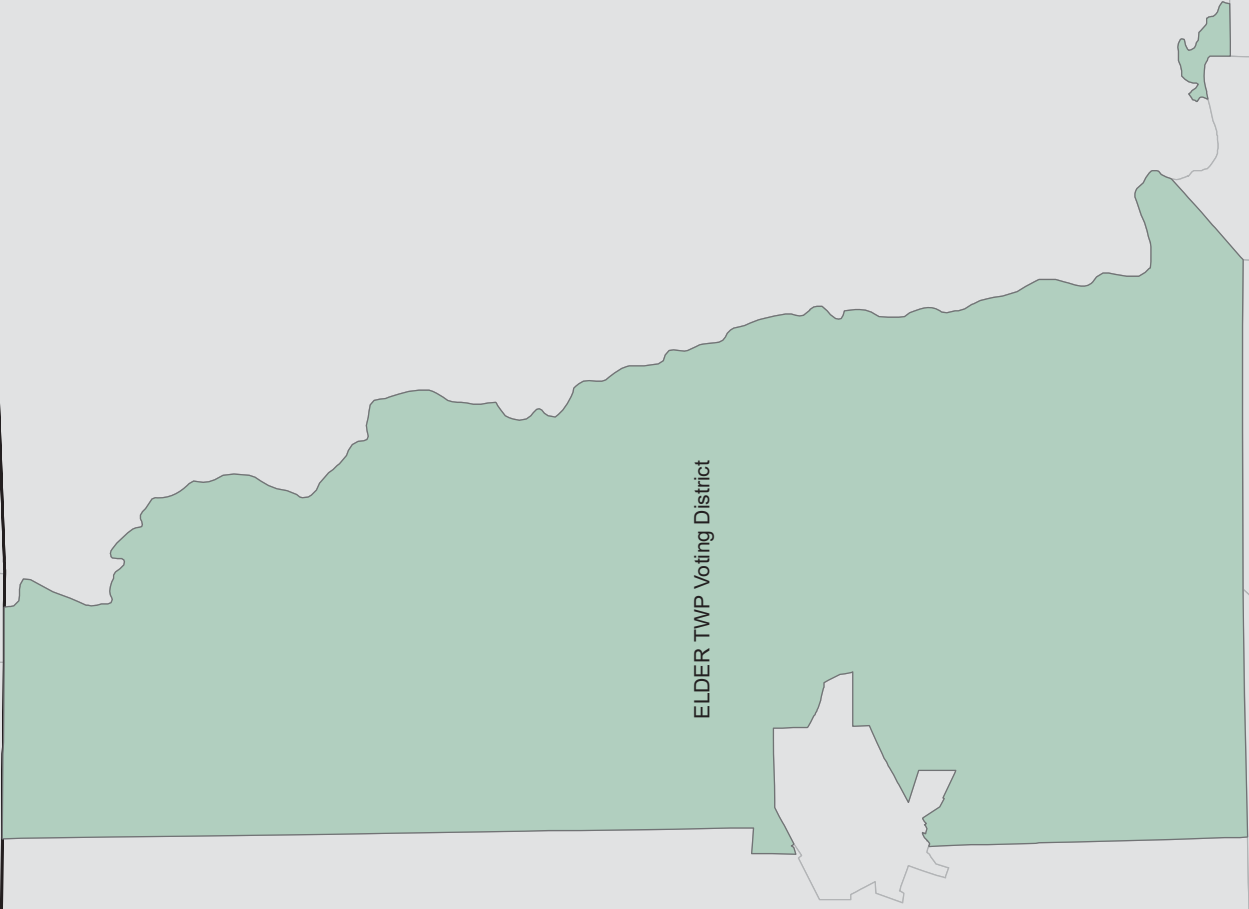
CROYLE TWP VTD 02
Cambria County
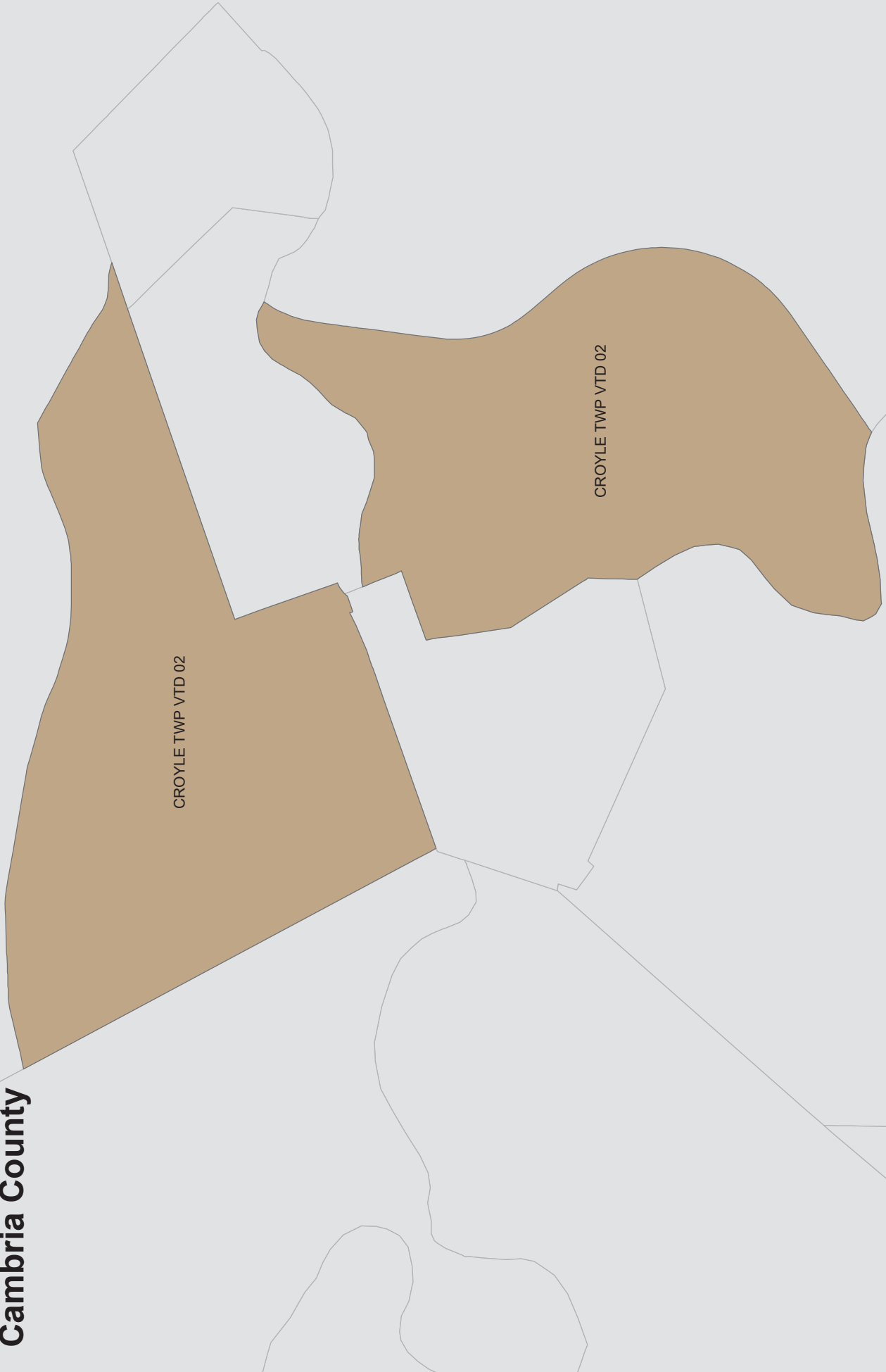
CROYLE TWP VTD 02

CROYLE TWP VTD 02

ELDER TWP Voting District
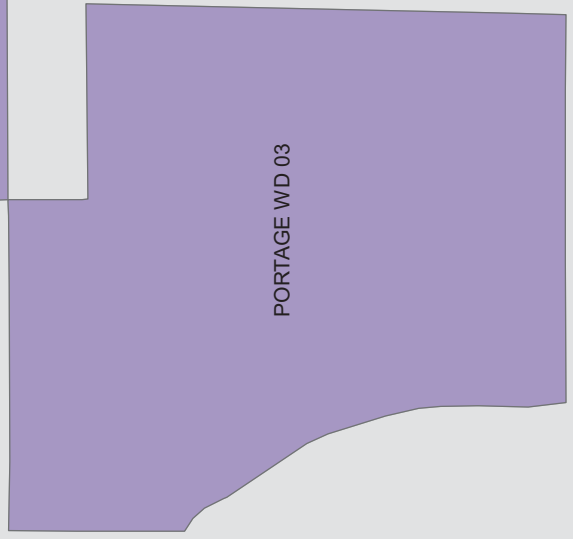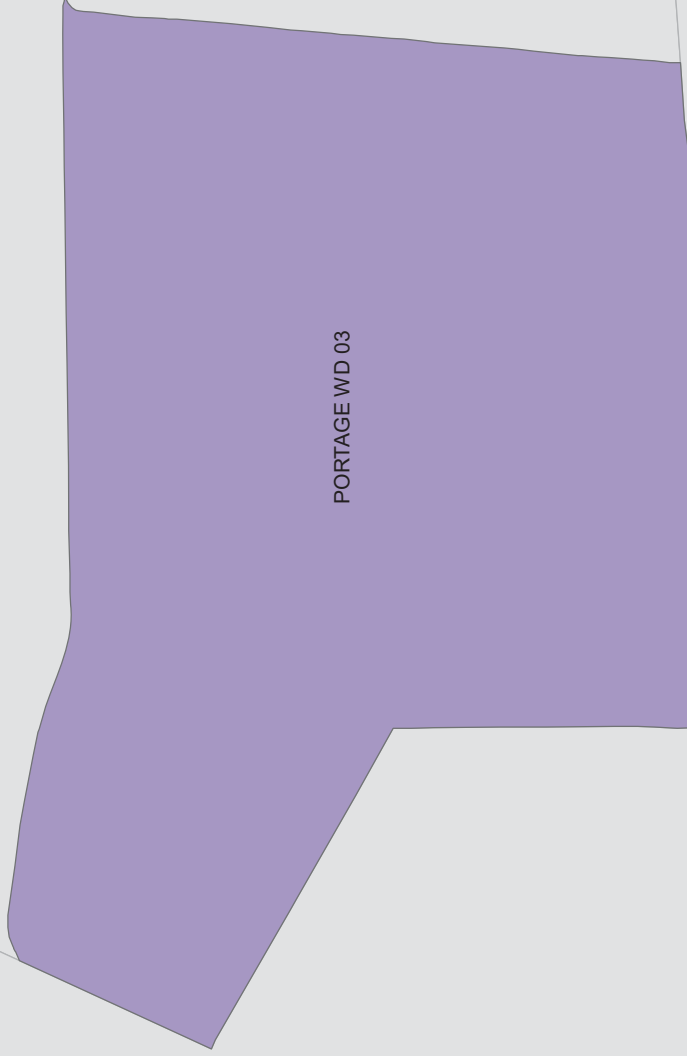## Cambria County

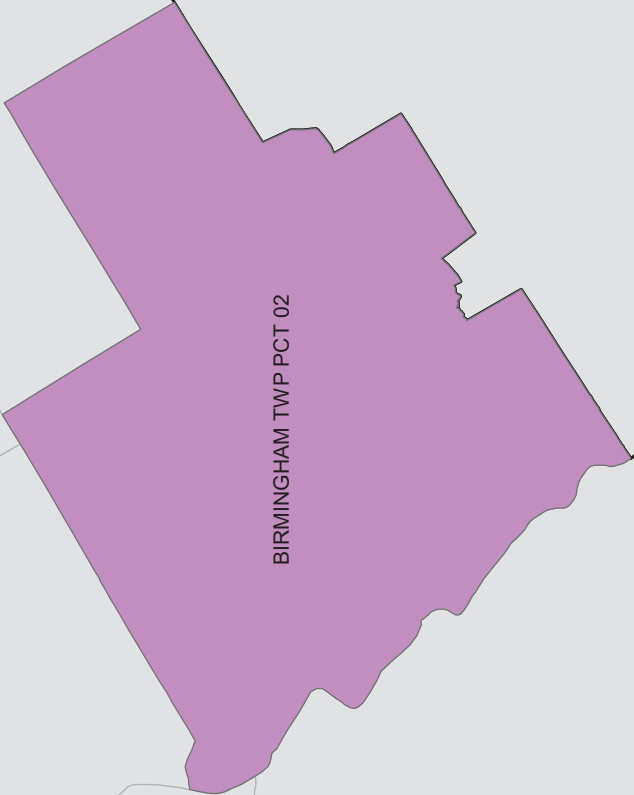ELDER TWP Voting District

NORTHERN CAMBRIA 03

Cambria County

NORTHERN CAMBRIA 03

PORTAGE WD 03
Cambria County

PORTAGE WD 03
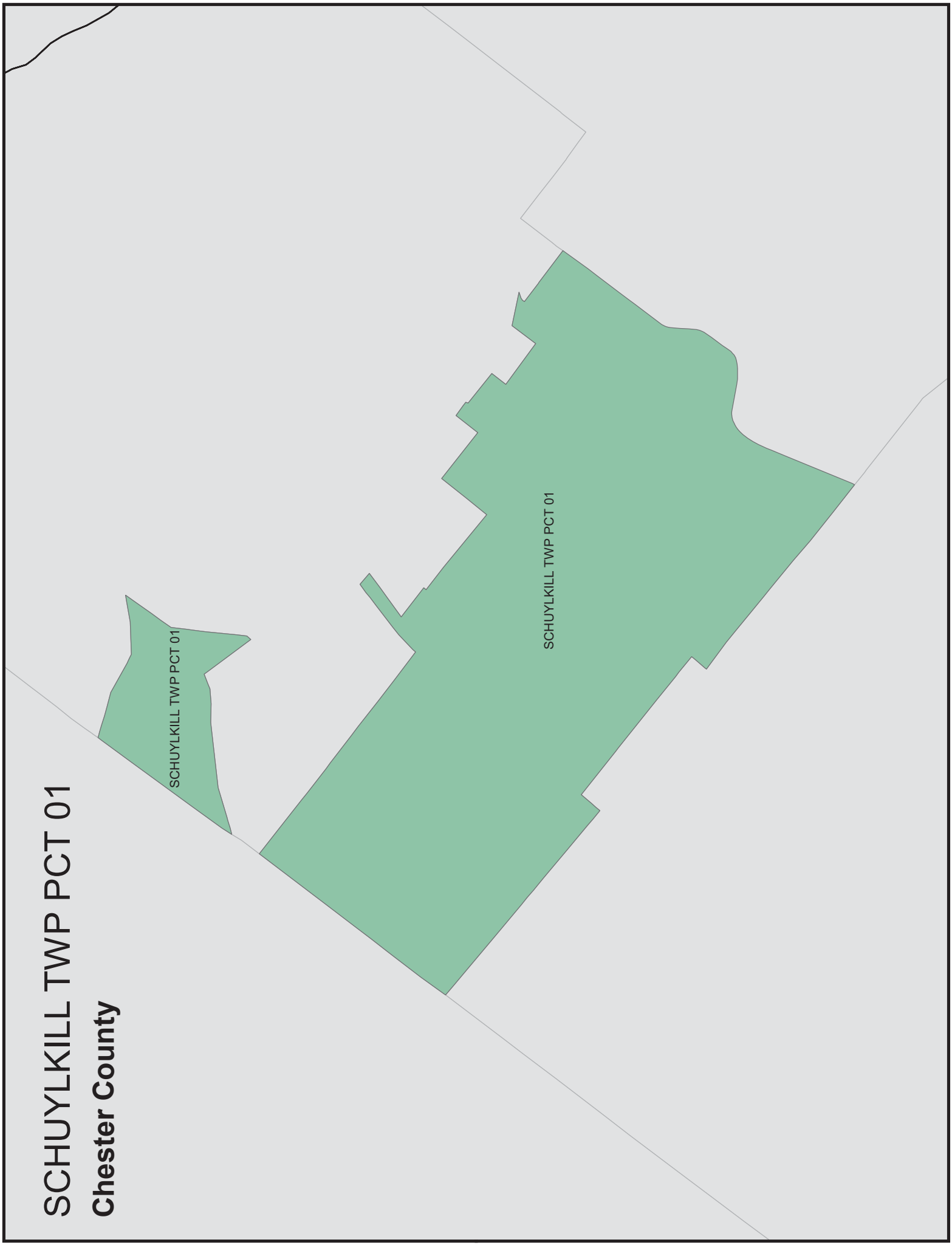
PORTAGE WD 03

BIRMINGHAM TWP PCT 02

Chester County

BIRMINGHAM TWP PCT 02

SCHUYLKILL TWP PCT 01

Chester County

SCHUYLKILL TWP PCT 01

SCHUYLKILL TWP PCT 01

VALLEY TWP PCT NORTH

Chester County

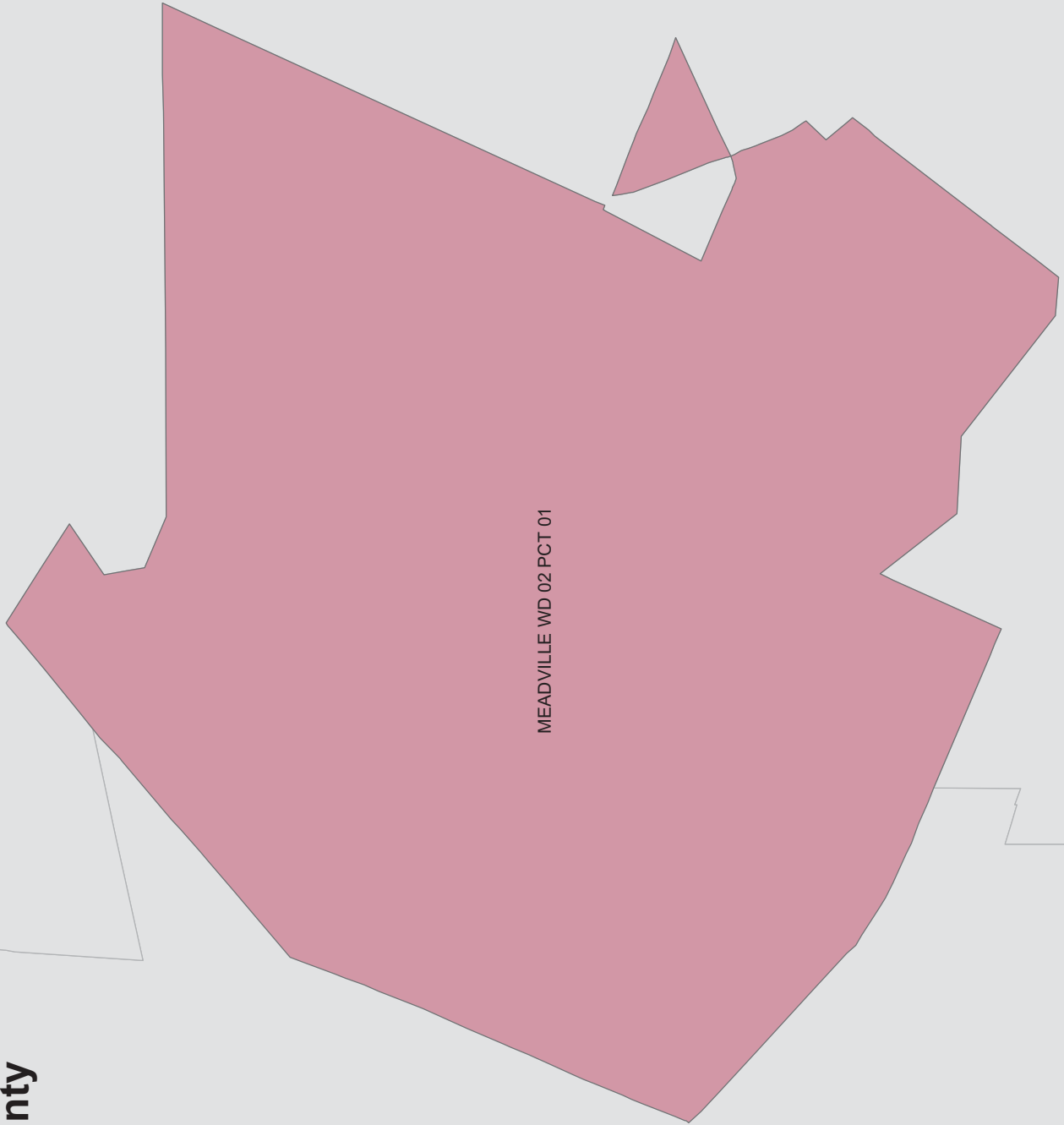VALLEY TWP PCT NORTH

VALLEY TWP PCT NORTH

RICHLAND TWP Voting District-Psudo (Emlenton Borough)
Clarion County

RICHLAND TWP Voting District-Psudo (Emlenton Borough)

RICHLAND TWP Voting District-Psudo (Emlenton Borough)

MEADVILLE WD 02 PCT 01

Crawford County

MEADVILLE WD 02 PCT 01

SHIPPENSBURG TWP Voting District
Cumberland County
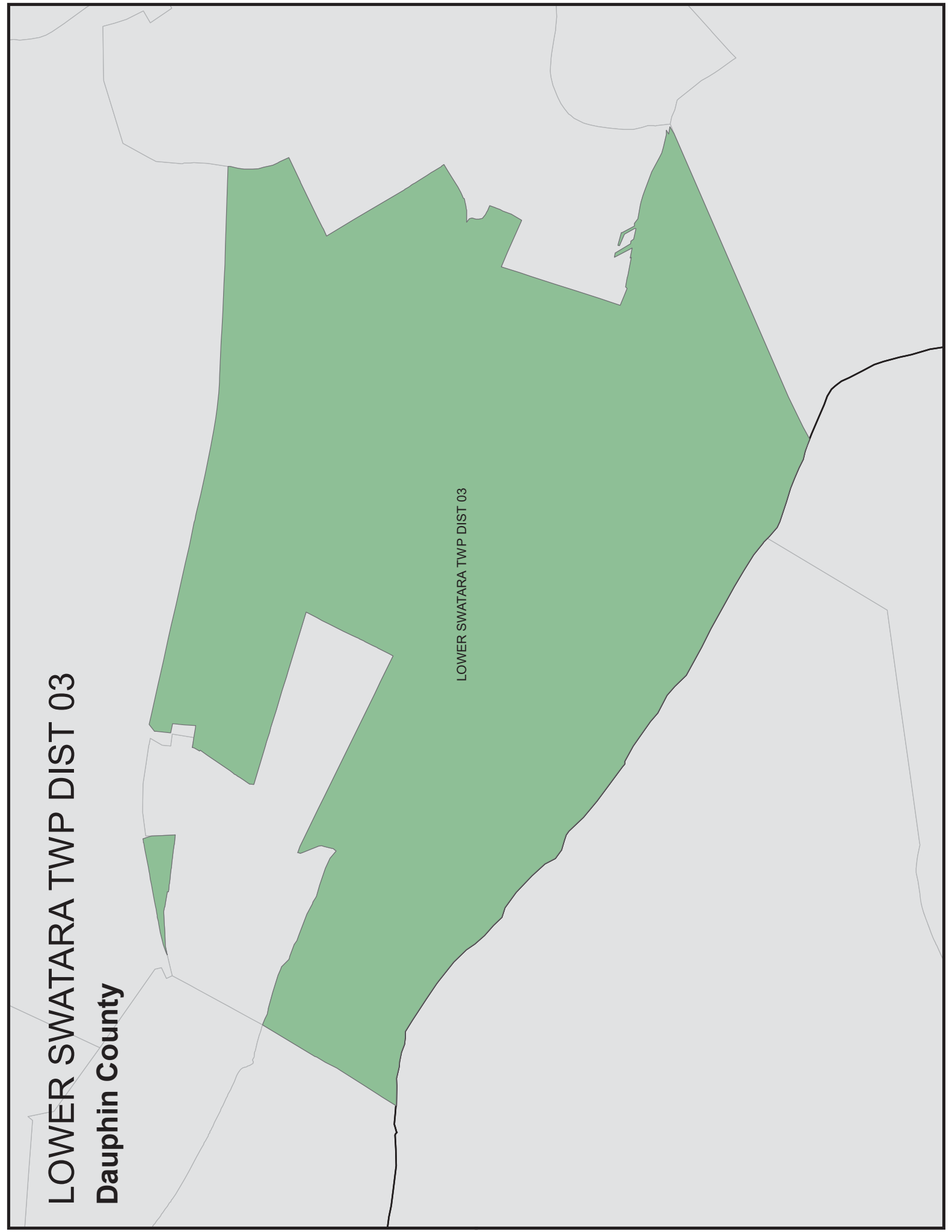
SHIPPENSBURG TWP Voting District

DERRY TWP PCT 14

DERRY TWP PCT 14
Dauphin County

LOWER SWATARA TWP DIST 03

Dauphin County

LOWER SWATARA TWP DIST 03

NETHER PROVIDENCE 06 01

Delaware County

NETHER PROVIDENCE 06 01

NETHER PROVIDENCE 06 01
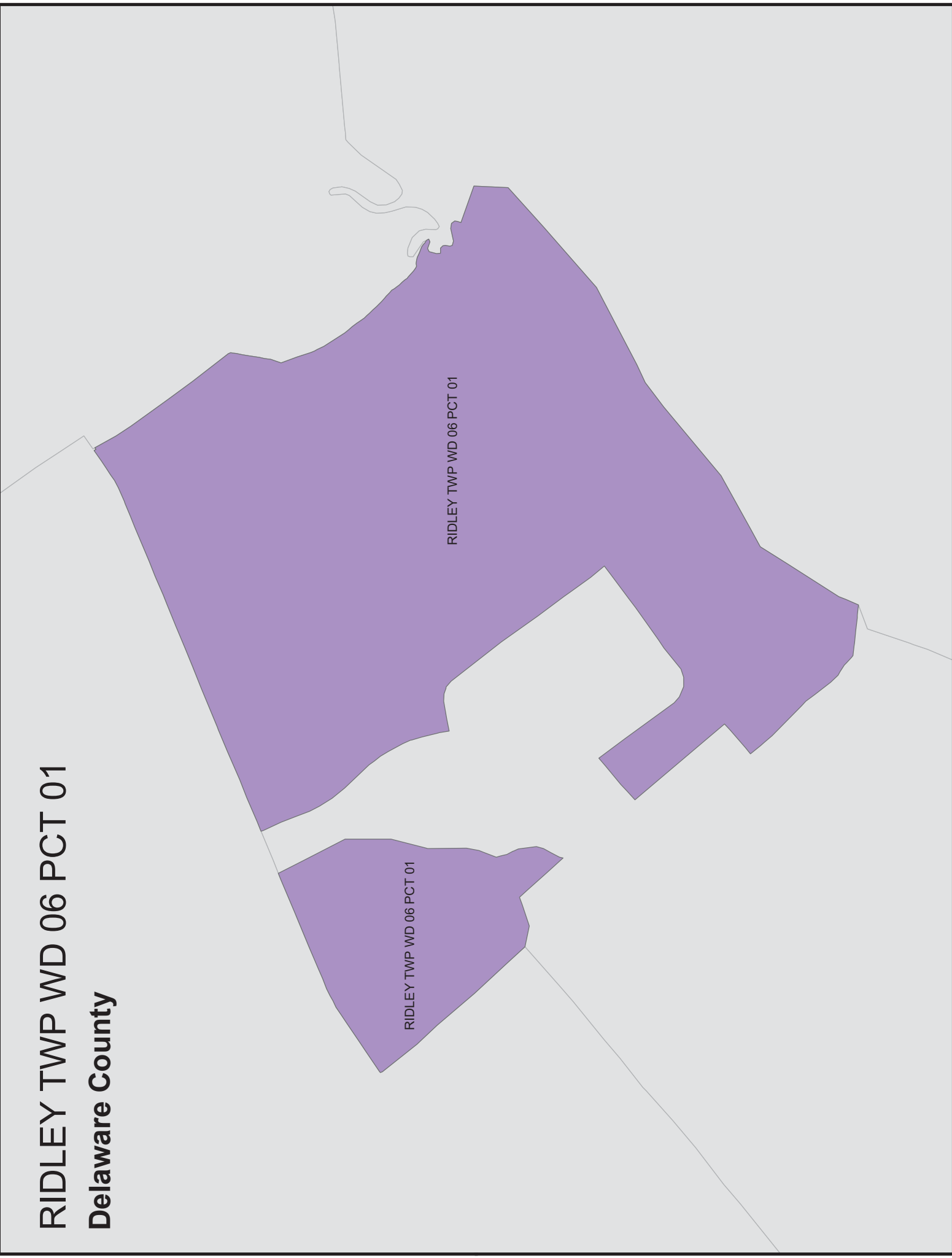
NETHER PROVIDENCE 06 01

RADNOR TWP WD 02 PCT 01
Delaware County

RADNOR TWP WD 02 PCT 01

RADNOR TWP WD 02 PCT 01

RIDLEY TWP WD 06 PCT 01
Delaware County

RIDLEY TWP WD 06 PCT 01
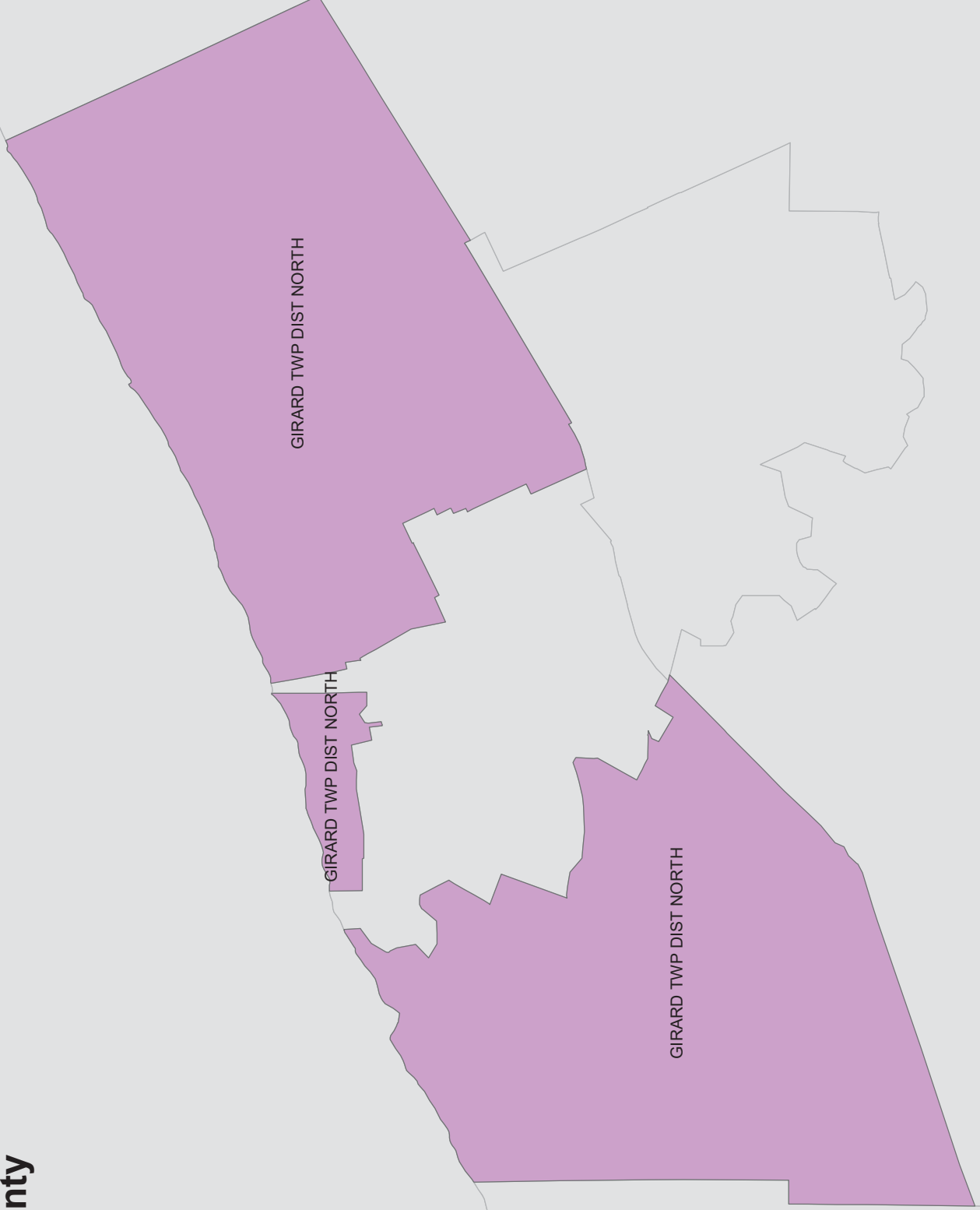
RIDLEY TWP WD 06 PCT 01

CONCORD TWP Voting District

Erie County

CONCORD TWP Voting District

GIRARD TWP DIST NORTH

Erie County

GIRARD TWP DIST NORTH

GIRARD TWP DIST NORTH

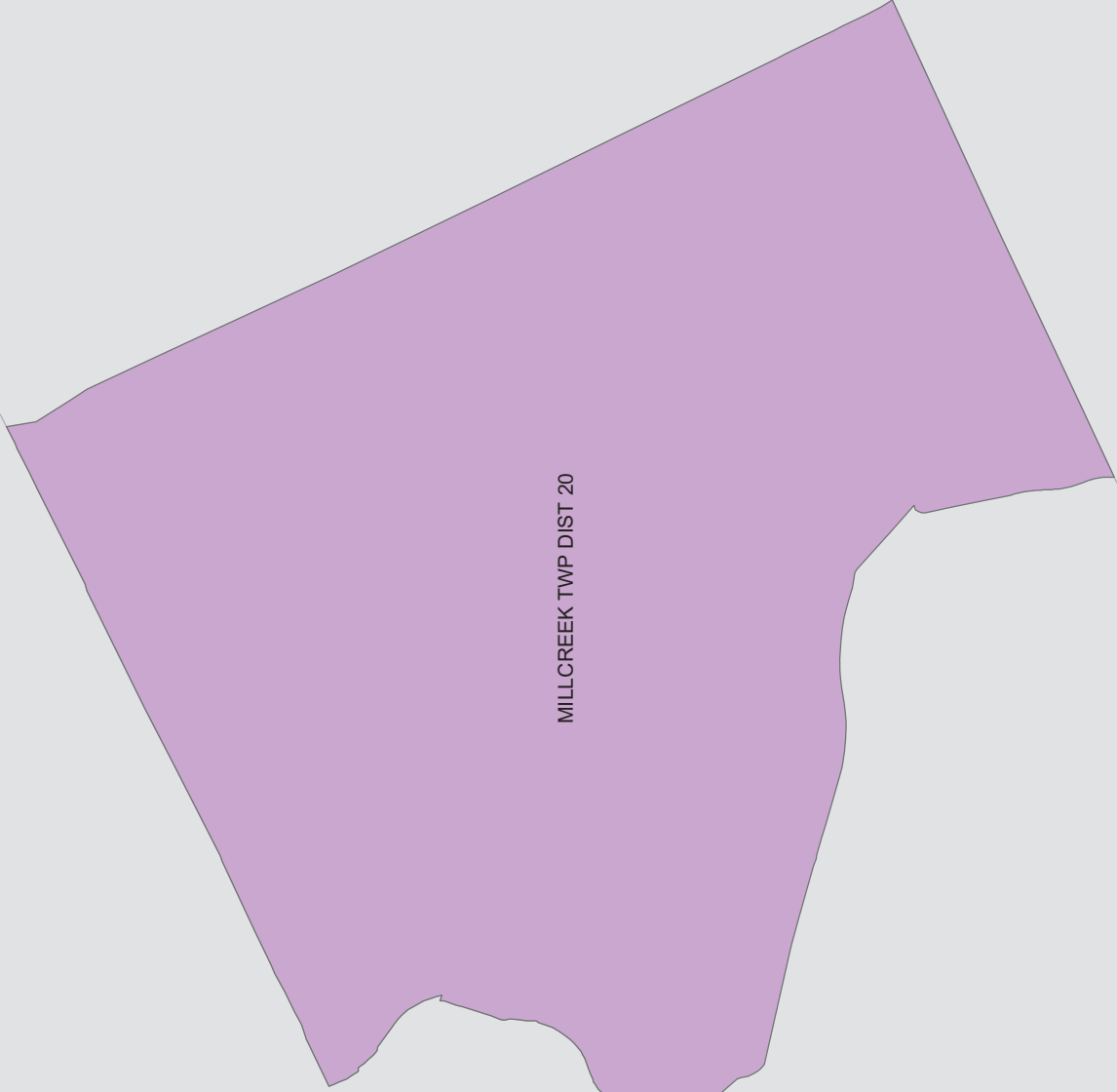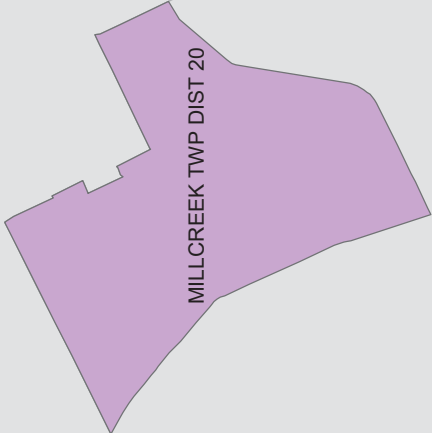GIRARD TWP DIST NORTH

MILLCREEK TWP DIST 20

Erie County

MILLCREEK TWP DIST 20

MILLCREEK TWP DIST 20

SOUTH ABINGTON TWP DIST 02
Lackawanna County

SOUTH ABINGTON TWP DIST 02

EARL TWP DIST MARTINDALE

EPHRATA TWP DIST LINCOLN

EPHRATA TWP DIST LINCOLN

EARL TWP DIST MARTINDALE

Lancaster County
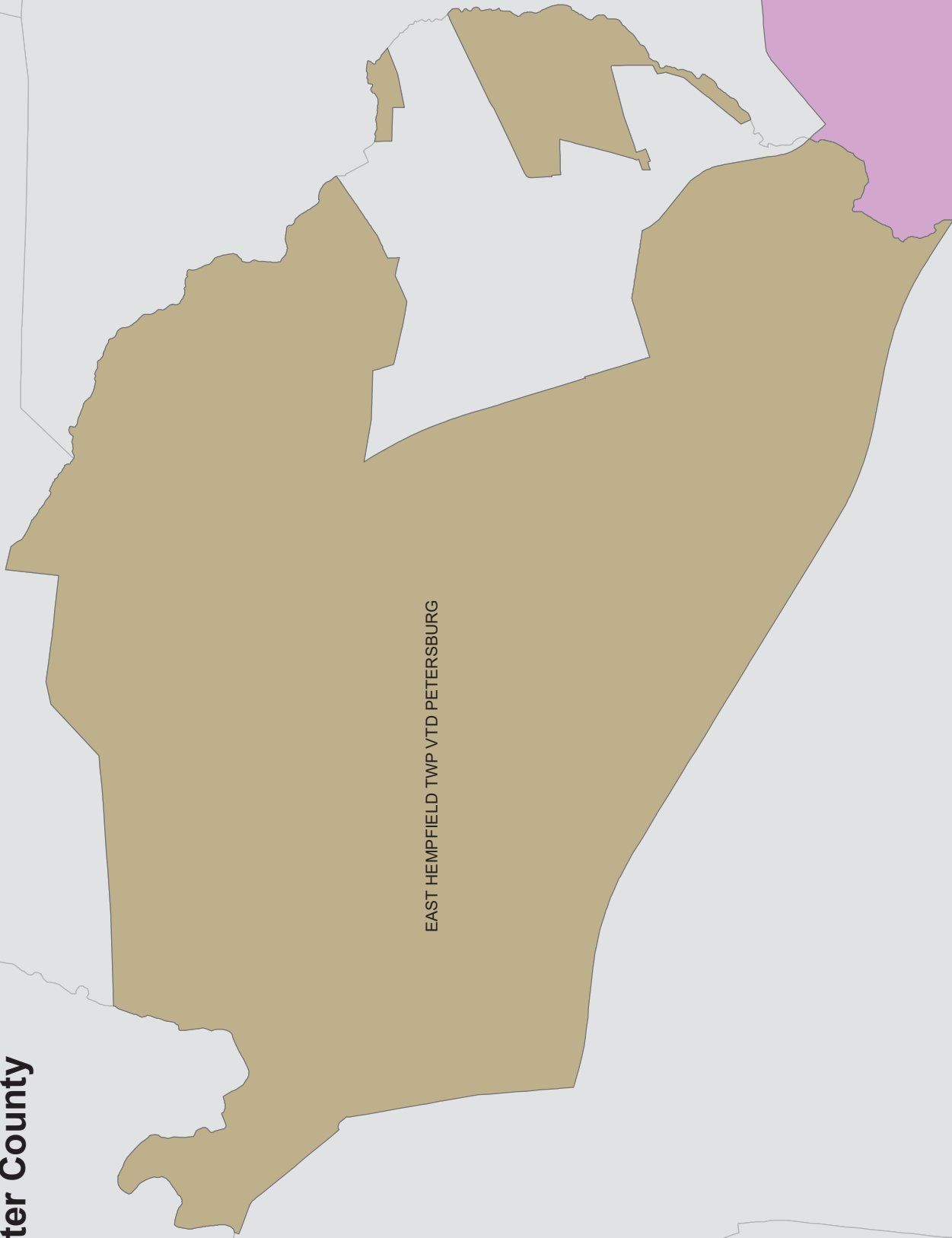
EAST HEMPFIELD TWP VTD PETERSBURG

Lancaster County

EAST HEMPFIELD TWP VTD PETERSBURG

EAST LAMPETER TWP DIST 07

Lancaster County

EAST LAMPETER TWP DIST 07
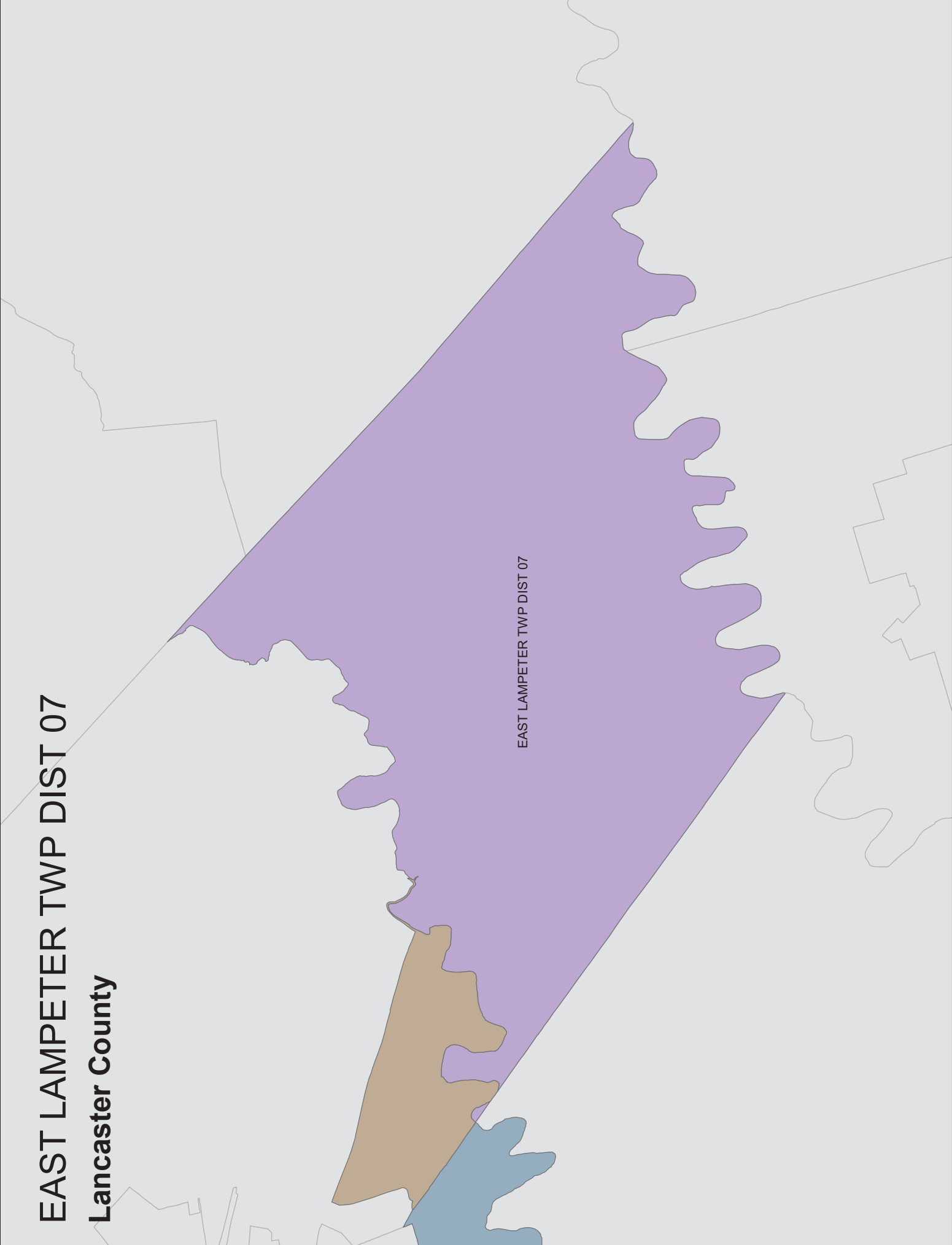
EAST LAMPETER TWP DIST 08

Lancaster County
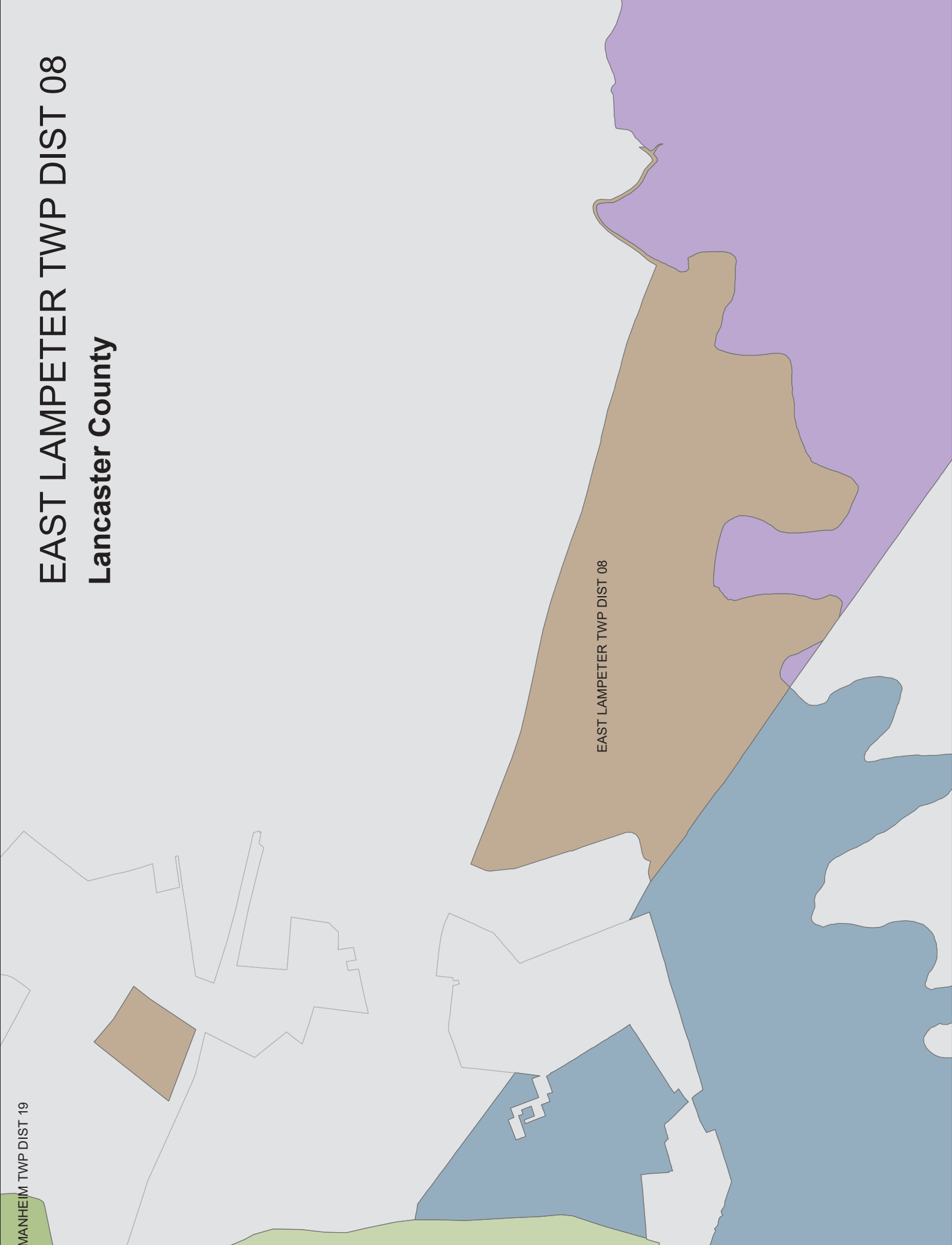
EAST LAMPETER TWP DIST 08

MANHEIM TWP DIST 19

EPHRATA TWP DIST LINCOLN

Lancaster County

EPHRATA TWP DIST LINCOLN
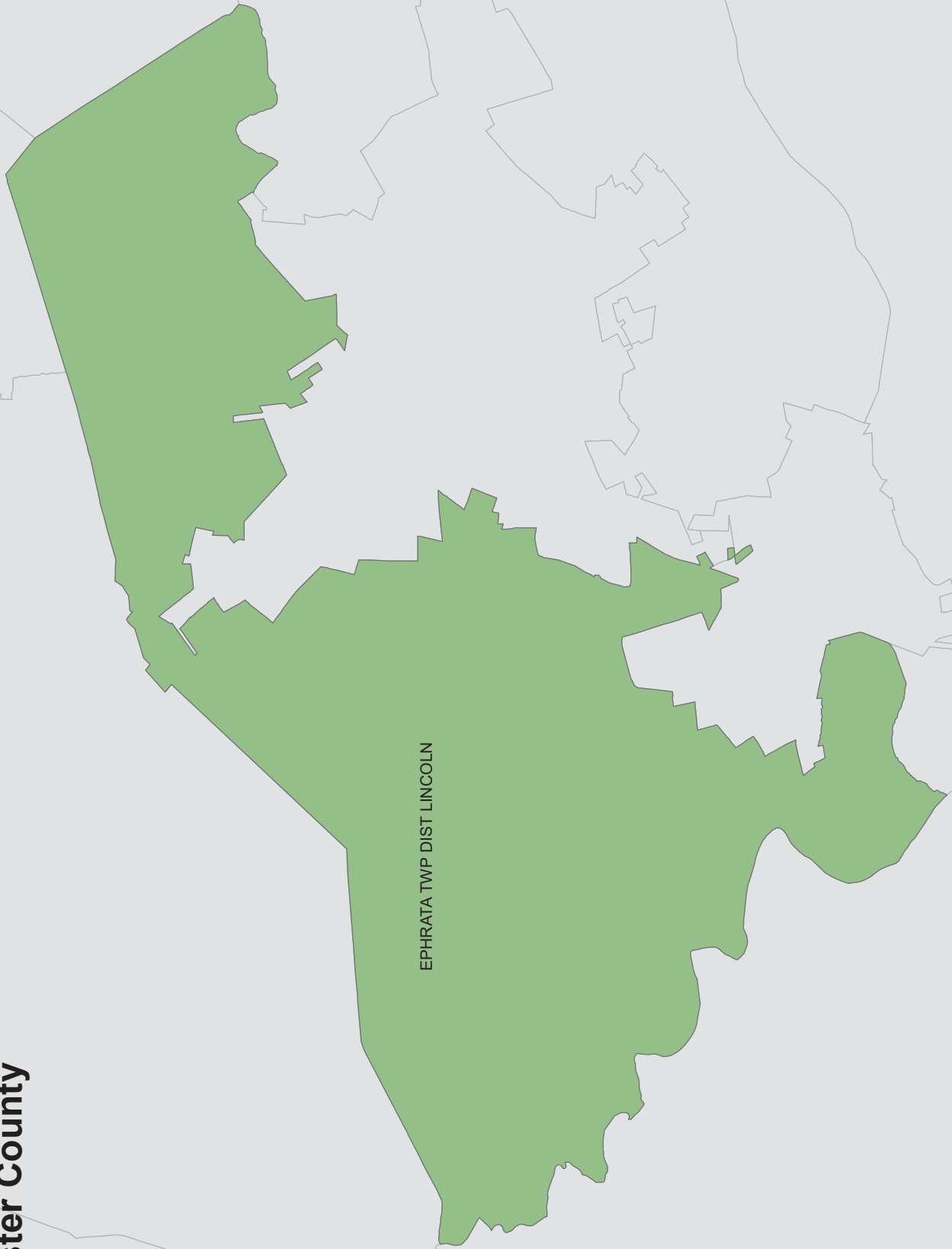
LANCASTER TWP DIST 04

Lancaster County

LANCASTER TWP DIST 04
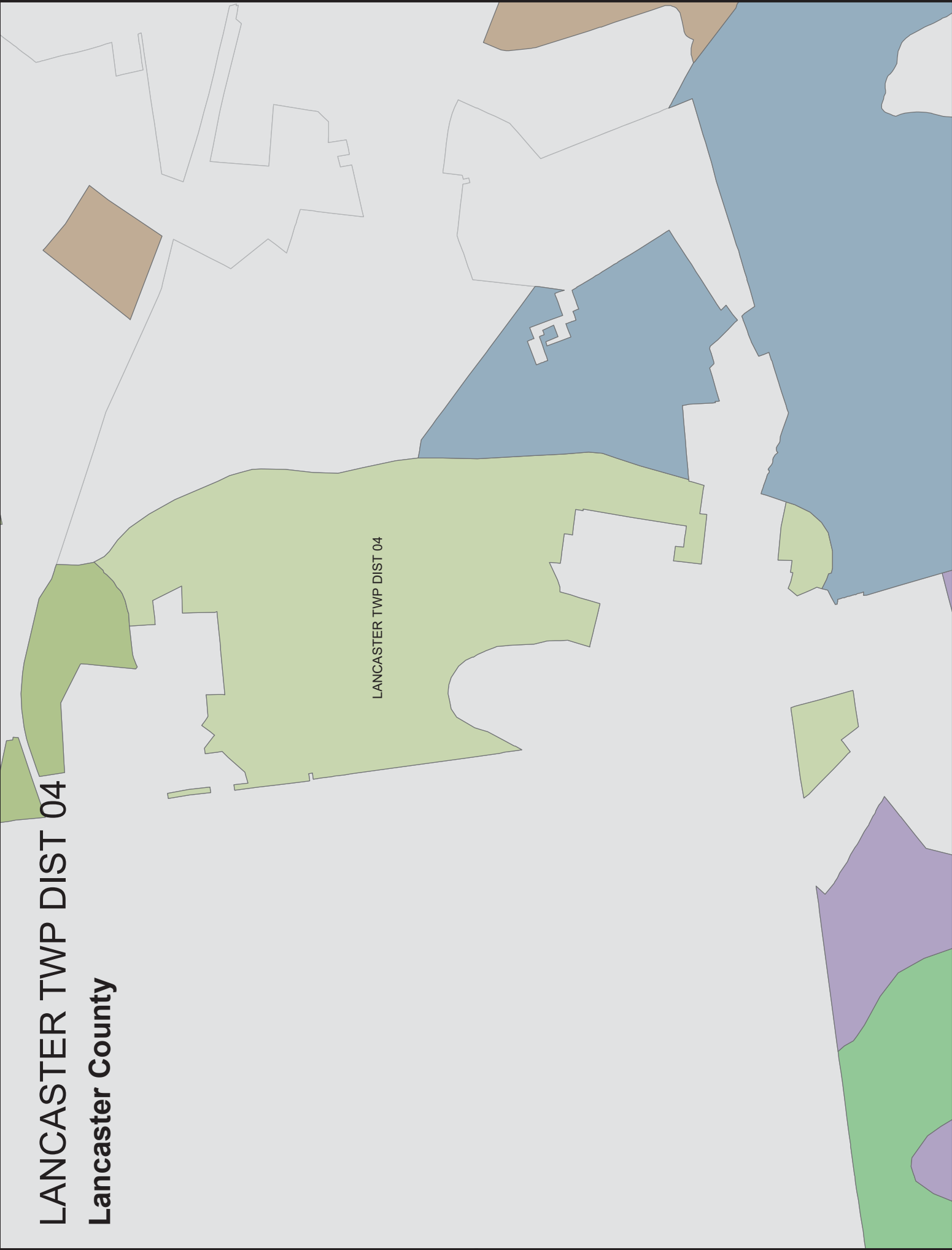
LANCASTER TWP DIST 08
Lancaster County

LANCASTER TWP DIST 08
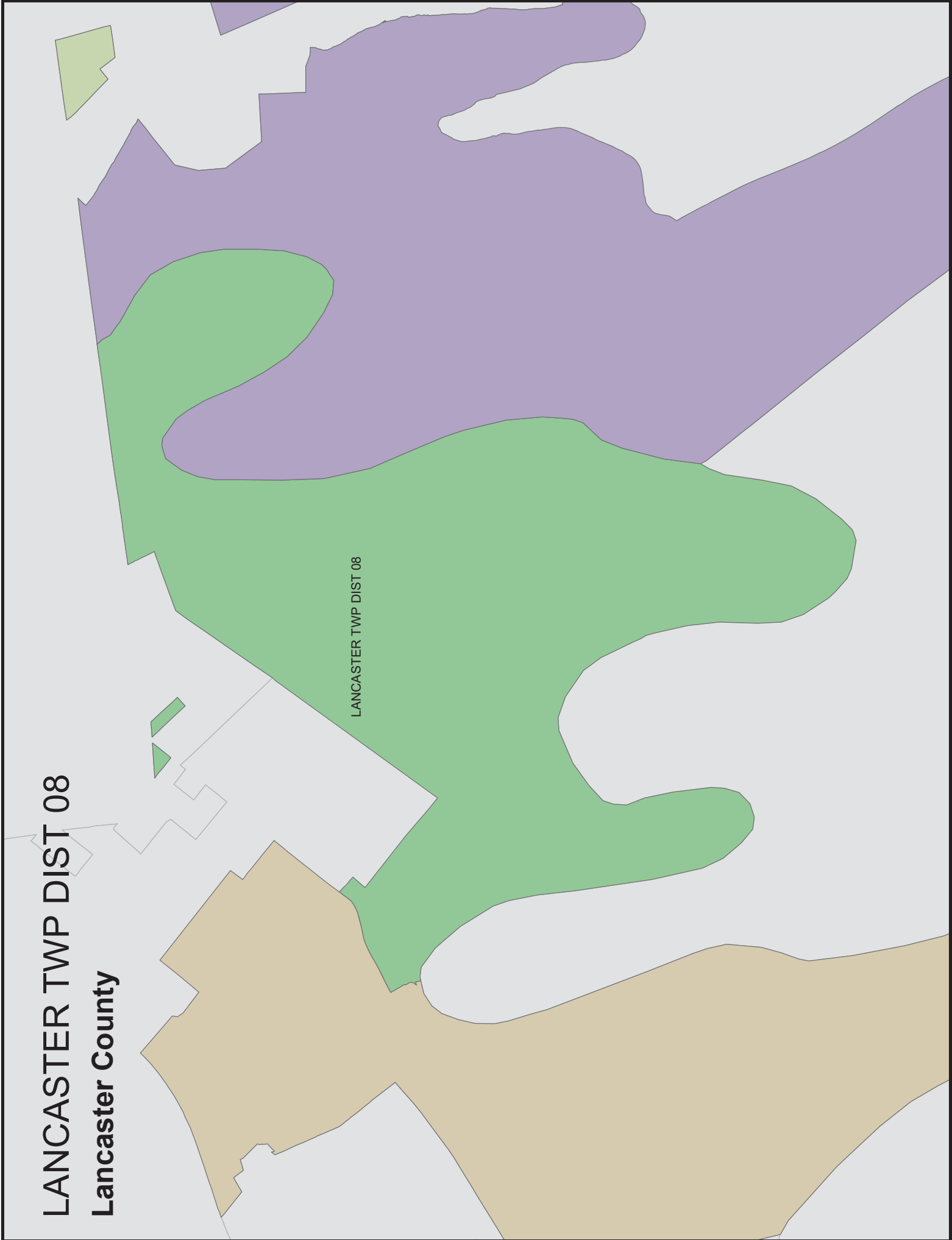
LANCASTER TWP DIST 09

Lancaster County

LANCASTER TWP DIST 09

MANHEIM TWP DIST 02

Lancaster County

MANHEIM TWP DIST 02

MANHEIM TWP DIST 07 (HD096)
Lancaster County

MANHEIM TWP DIST 07 (HD096)

MANHEIM TWP DIST 07 (HD096)

MANHEIM TWP DIST 07 (HD096)

MANHEIM TWP DIST 07 (HD096)

MANHEIM TWP DIST 17
Lancaster County
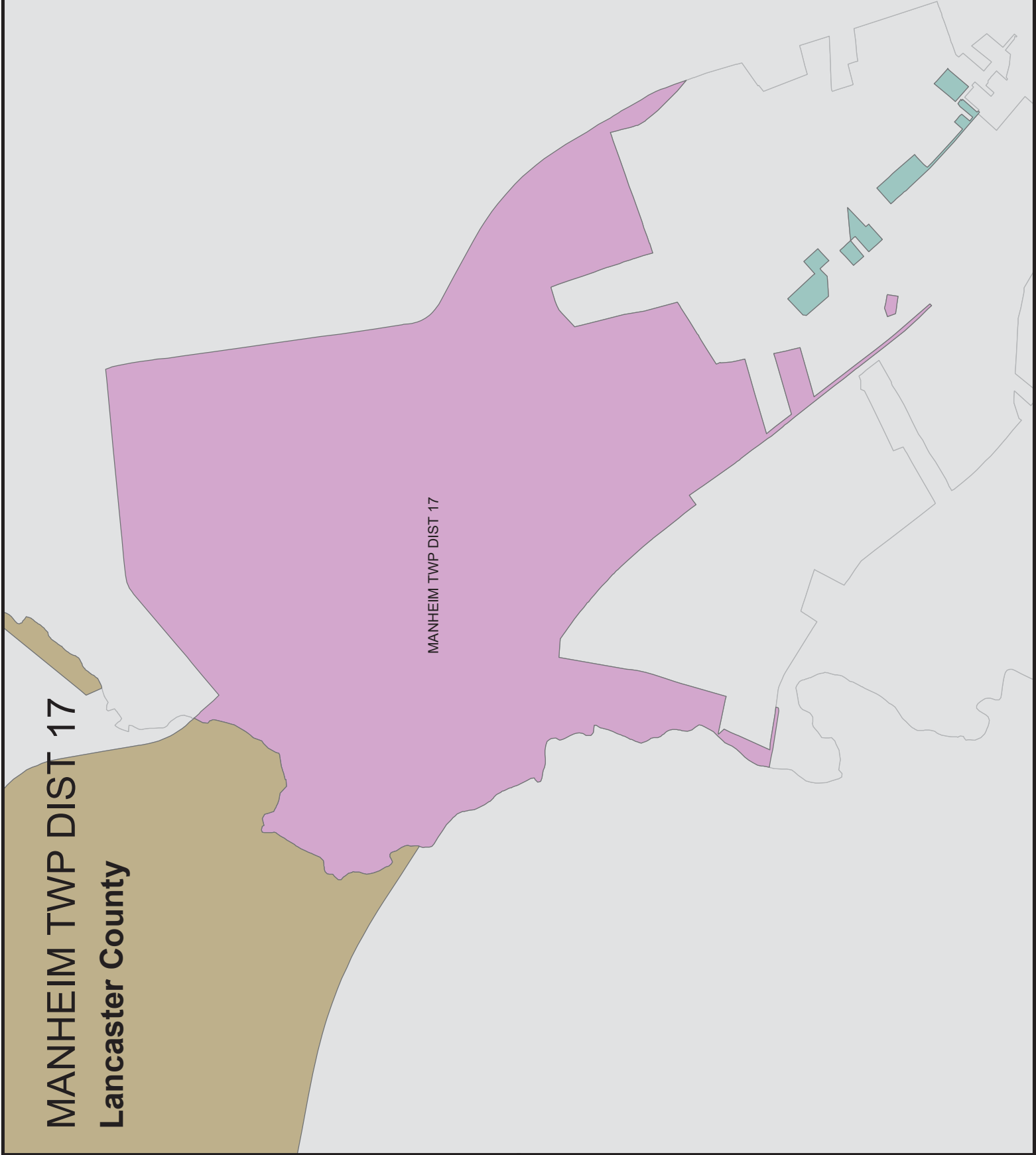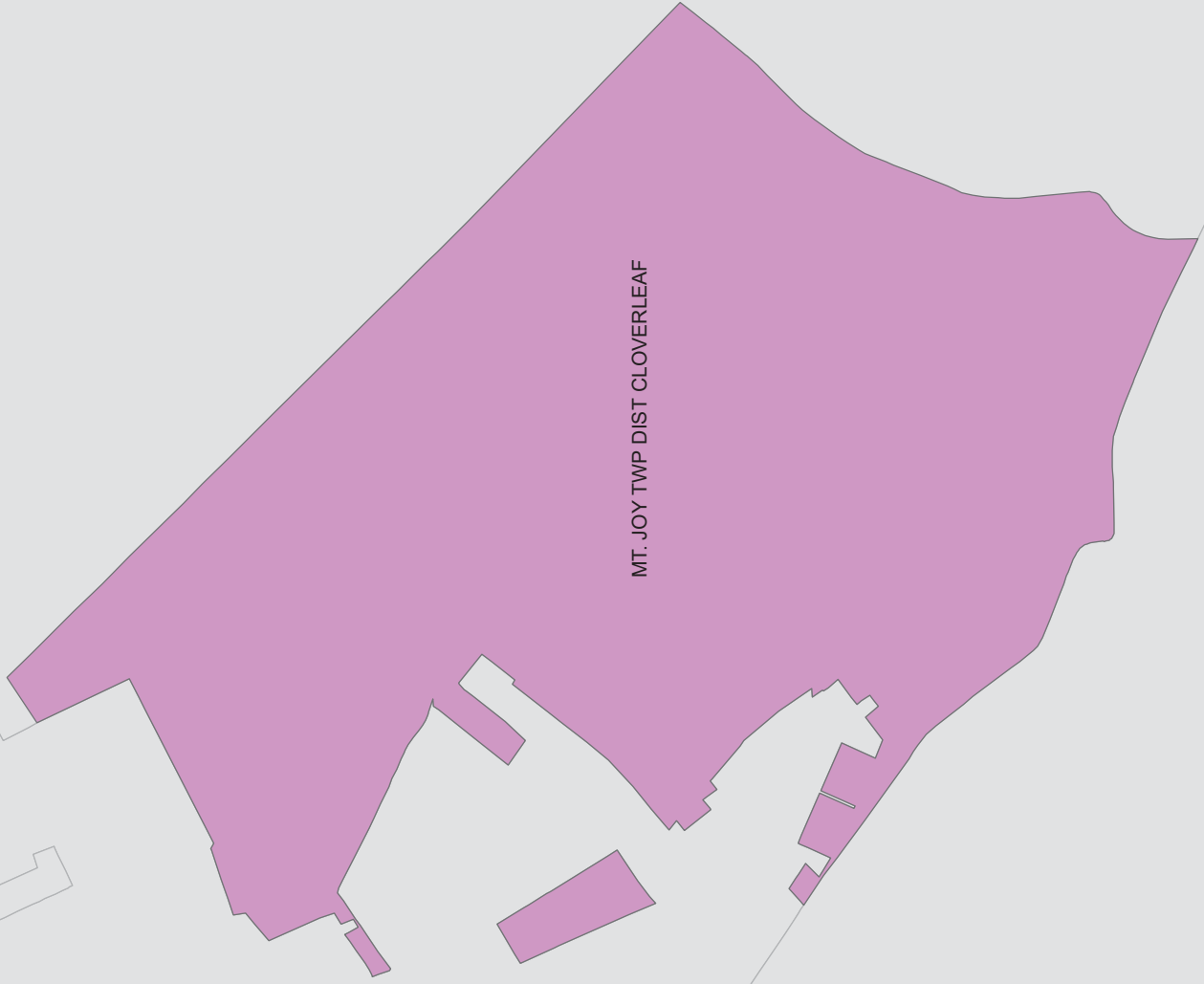
MANHEIM TWP DIST 17

MANHEIM TWP DIST 19

Lancaster County

MANHEIM TWP DIST 19

MANHEIM TWP DIST 19
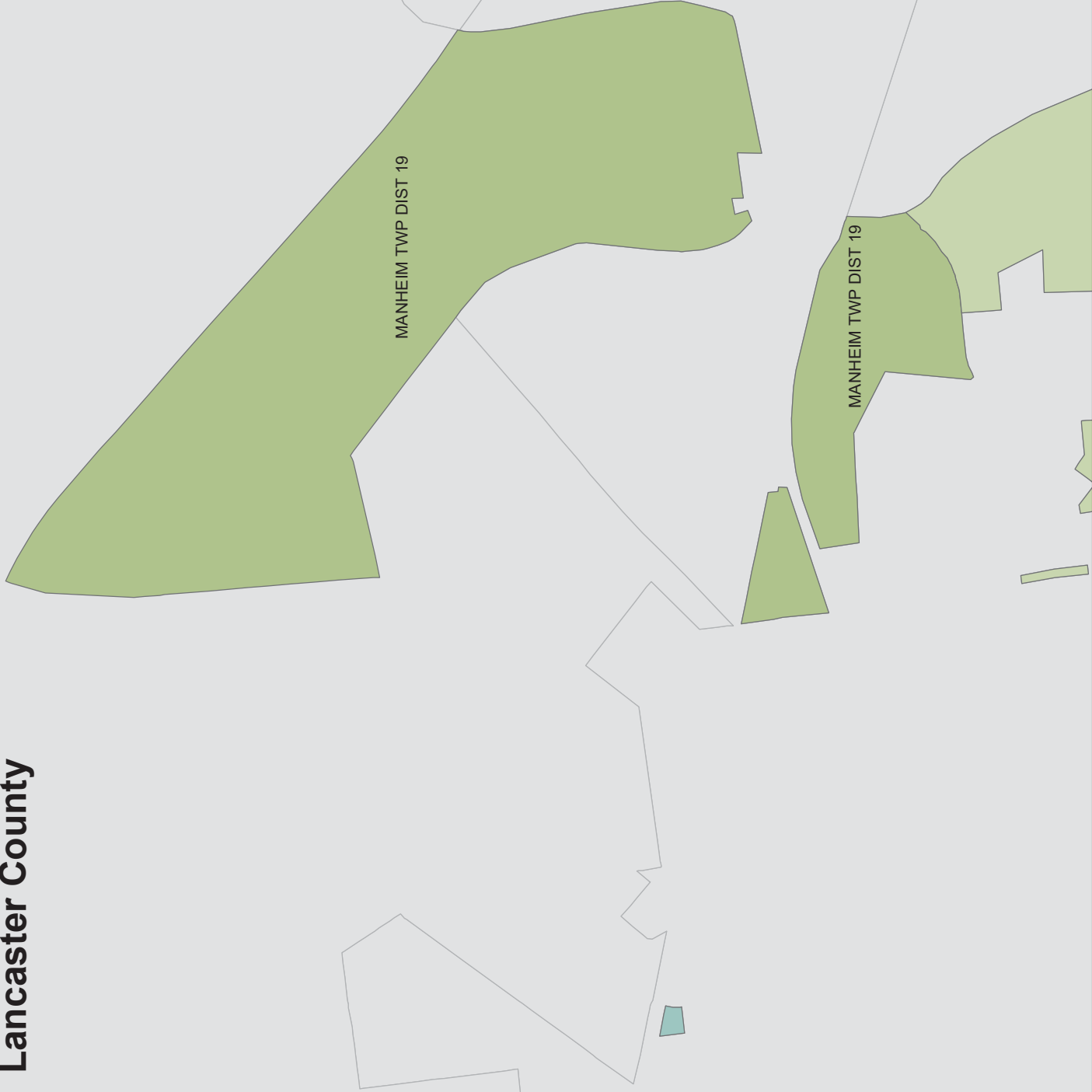
MT. JOY TWP DIST CLOVERLEAF

Lancaster County

MT. JOY TWP DIST CLOVERLEAF

WEST LAMPETER TWP VTD LYNDON
Lancaster County

WEST LAMPETER TWP VTD LYNDON

WEST LAMPETER TWP VTD LYNDON

WEST LAMPETER TWP VTD MILLPORT
Lancaster County

WEST LAMPETER TWP VTD MILLPORT

WEST LAMPETER TWP VTD MILLPORT
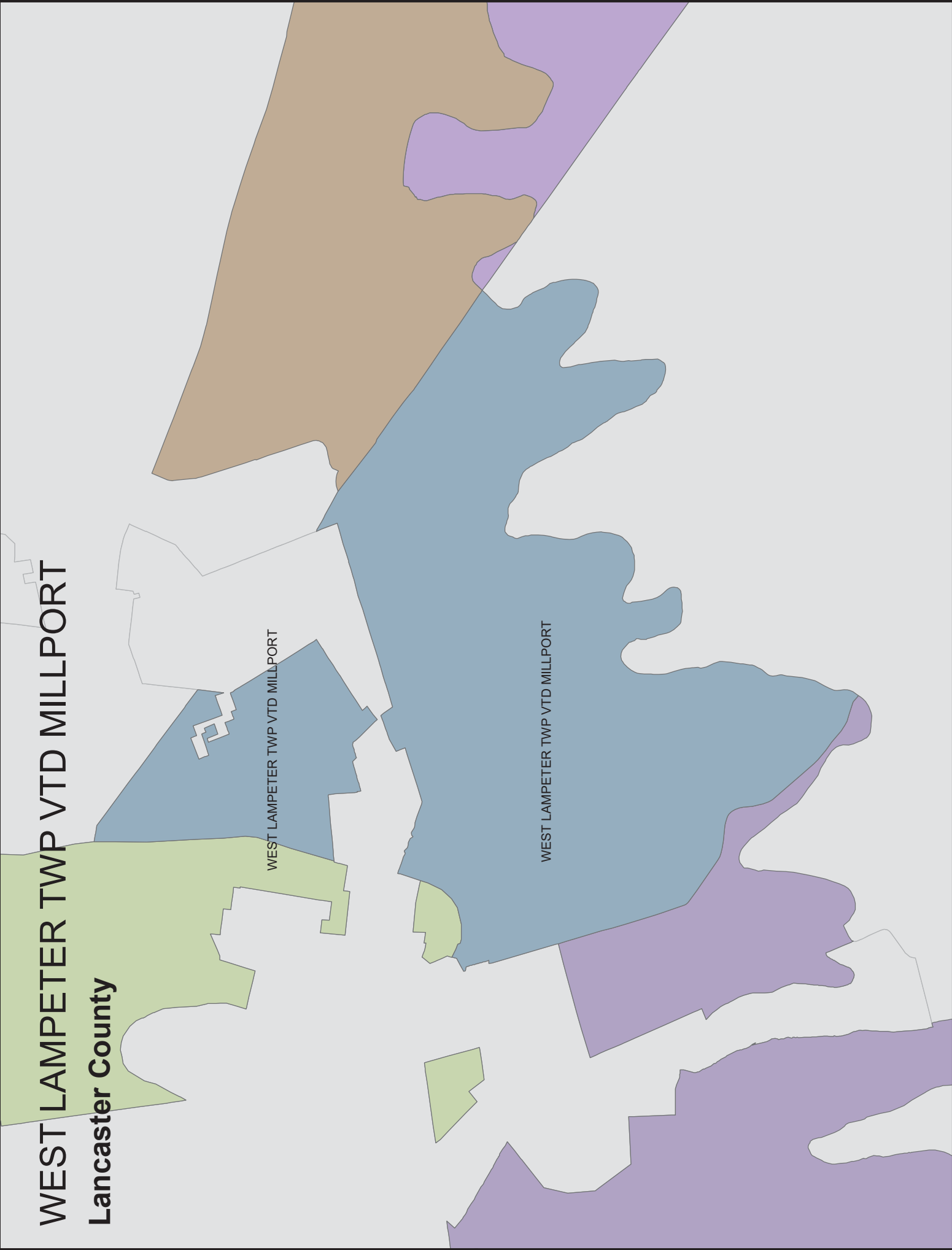
SHENANGO TWP VTD 02

Lawrence County
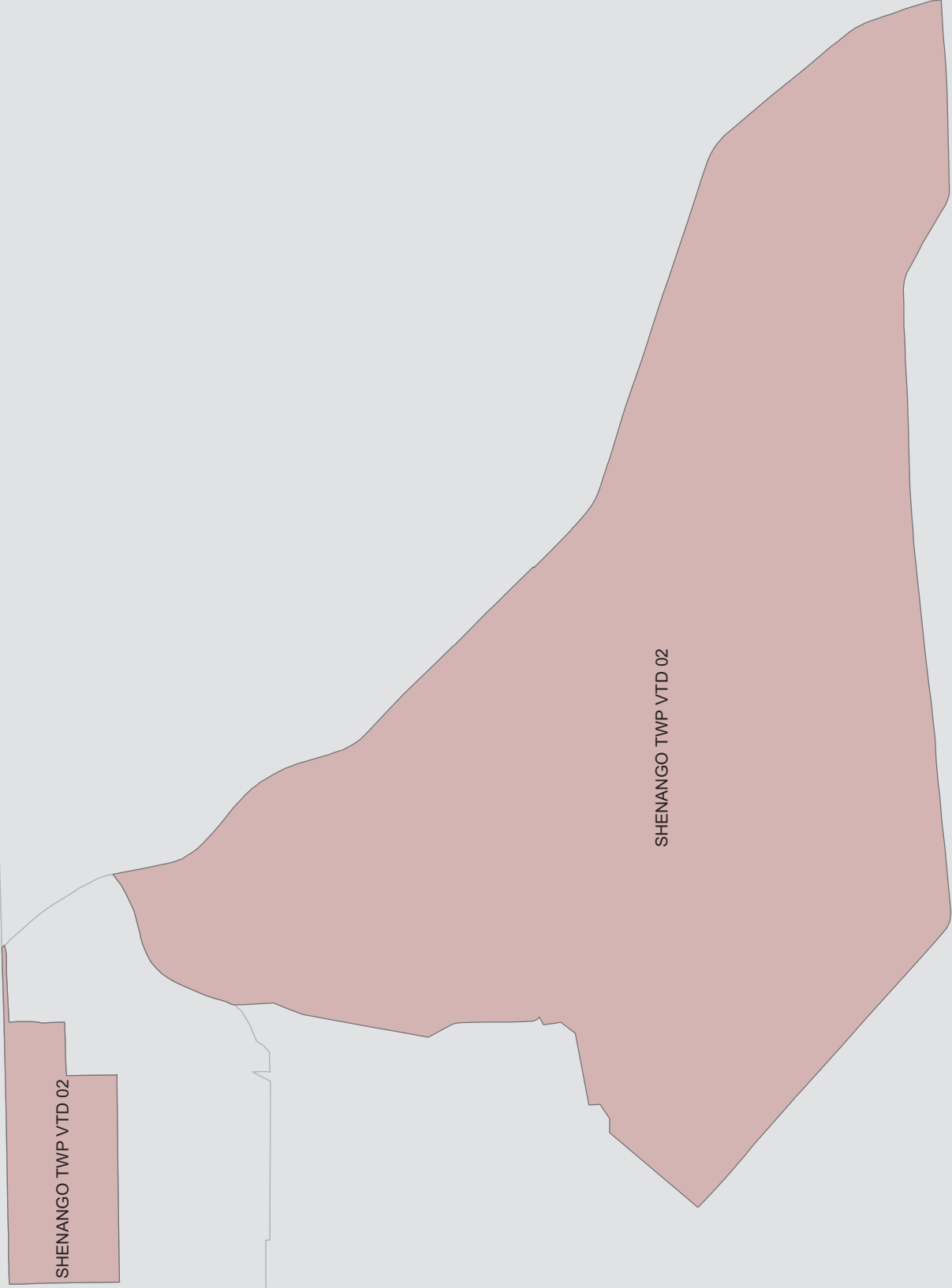
SHENANGO TWP VTD 02

SHENANGO TWP VTD 02

TAYLOR TWP Voting District

Lawrence County
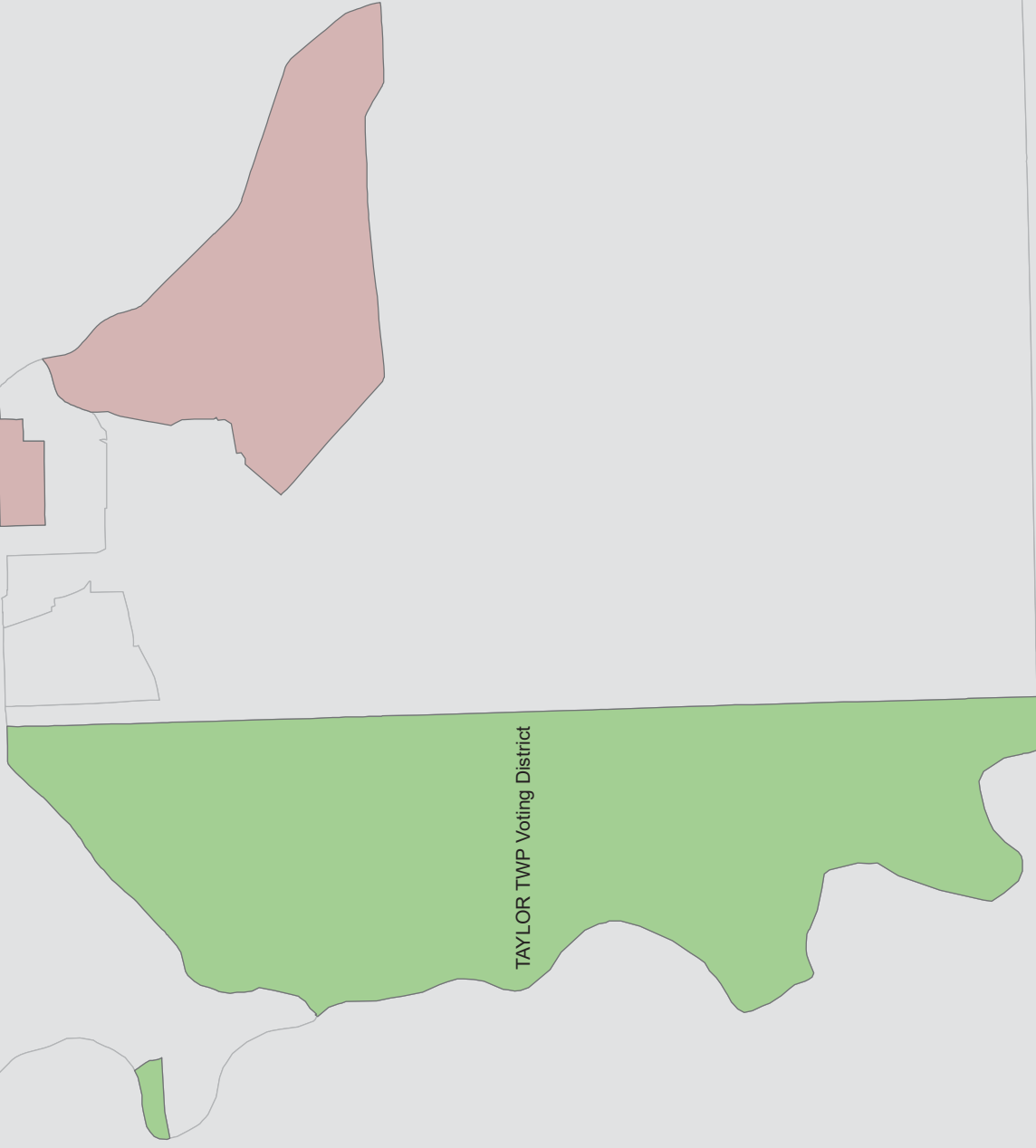
TAYLOR TWP Voting District

ALLENTOWN WD 17 DIST 04

Lehigh County

SOUTH WHITEHALL TWP DIST 02

ALLENTOWN WD 17 DIST 04

ALLENTOWN WD 17 DIST 04
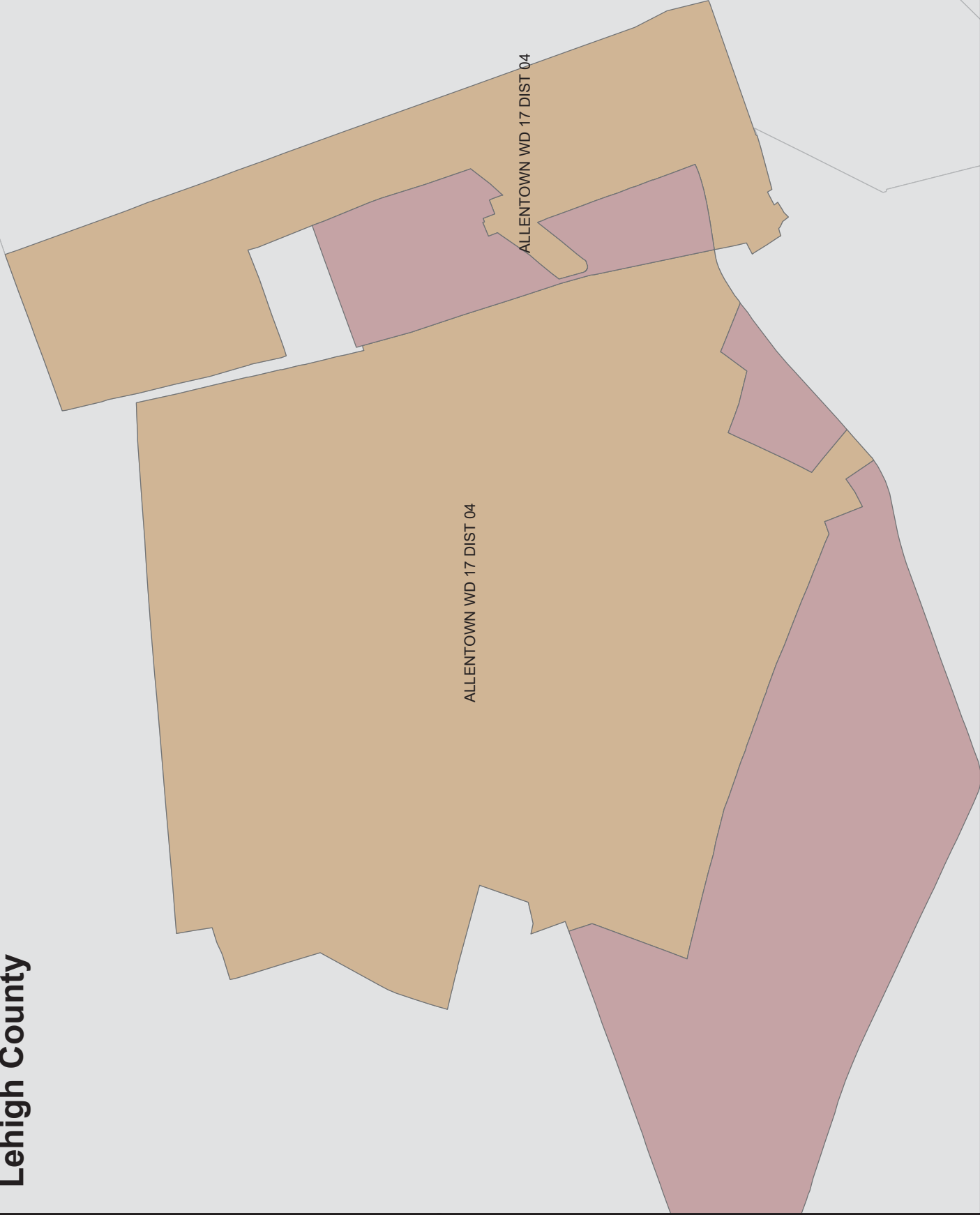
SALISBURY TWP WD 03 DIST 01

Lehigh County

SALISBURY TWP WD 03 DIST 01

SALISBURY TWP WD 03 DIST 01

SOUTH WHITEHALL TWP DIST 02
Lehigh County

SOUTH WHITEHALL TWP DIST 02

SOUTH WHITEHALL TWP DIST 02

SOUTH WHITEHALL TWP DIST 04

Lehigh County

SOUTH WHITEHALL TWP DIST 04
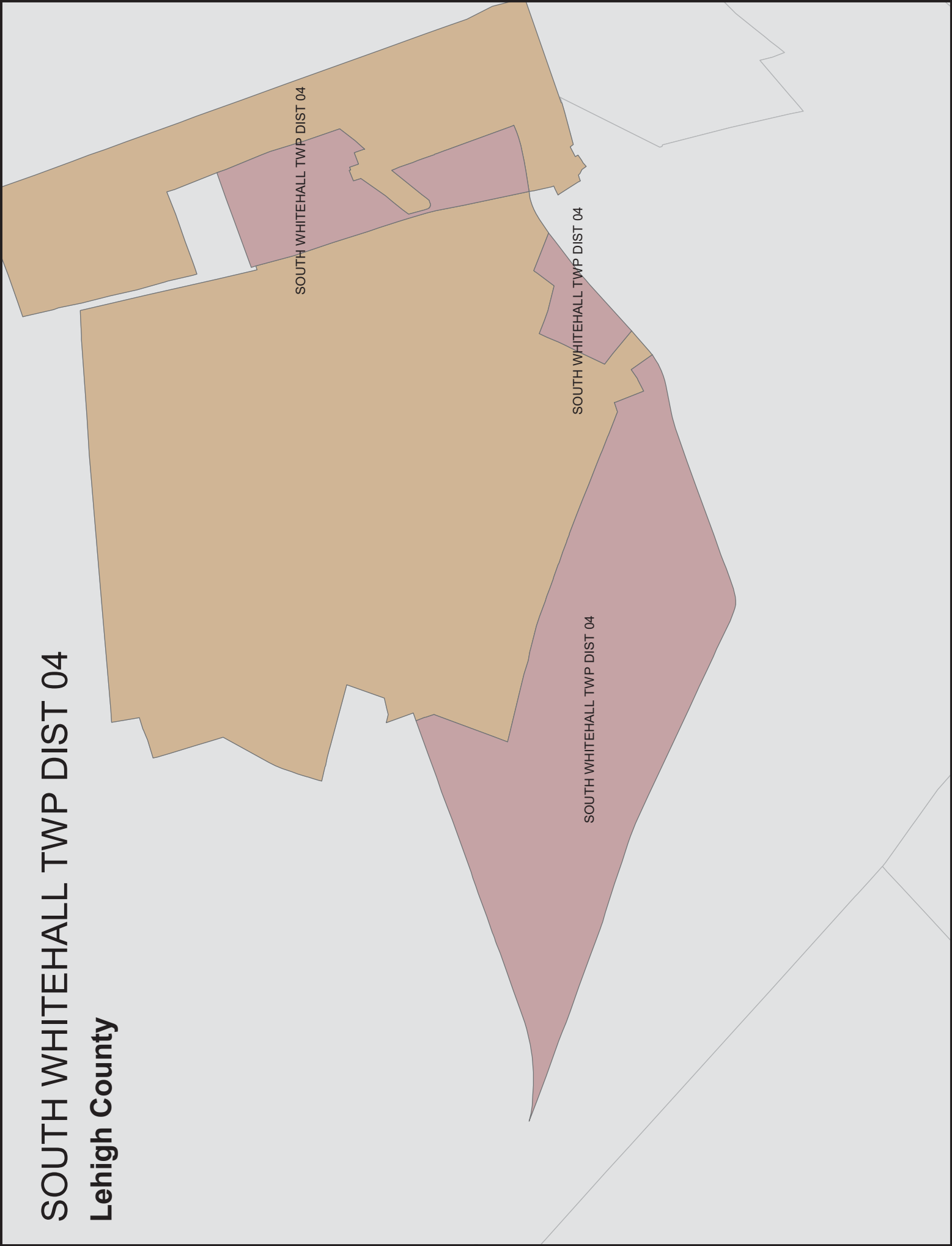
SOUTH WHITEHALL TWP DIST 04

SOUTH WHITEHALL TWP DIST 04

SOUTH WHITEHALL TWP DIST 04

UPPER MILFORD TWP DIST EASTERN

Lehigh County

UPPER MILFORD TWP DIST EASTERN

UPPER SAUCON TWP DIST 04

Lehigh County

UPPER SAUCON TWP DIST 04
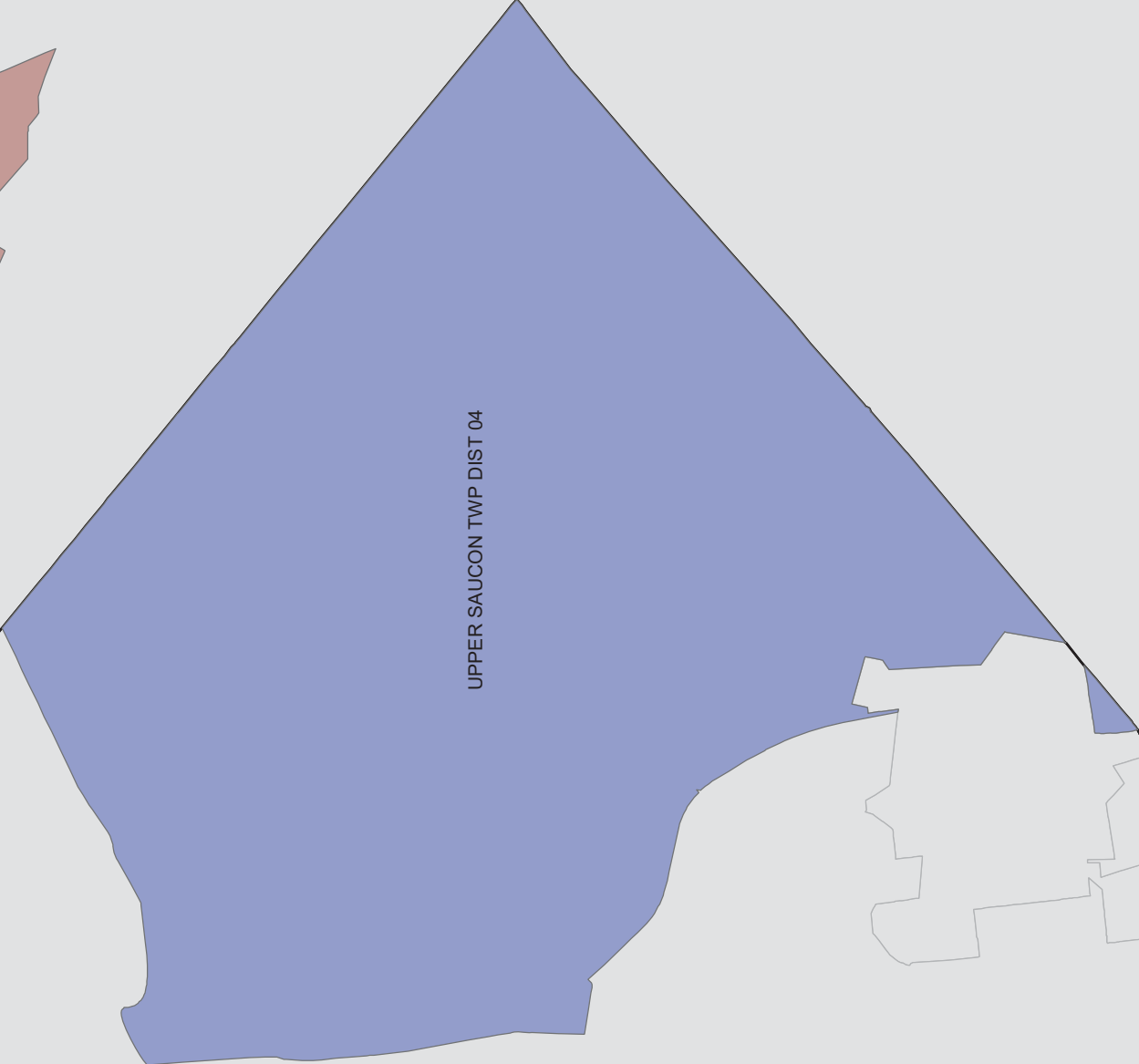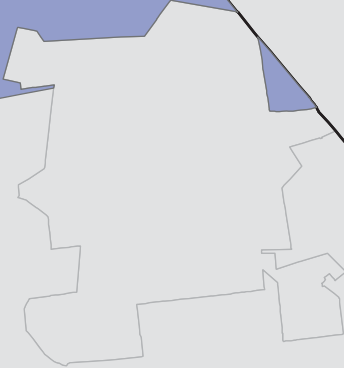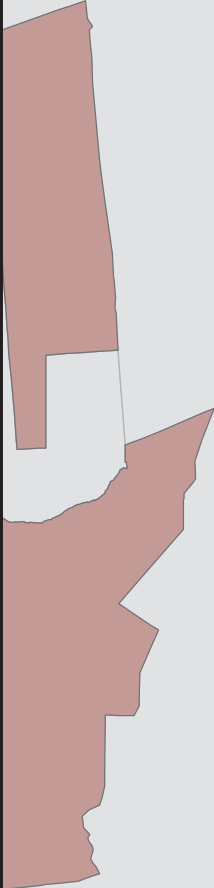
FOSTER TWP WD 01
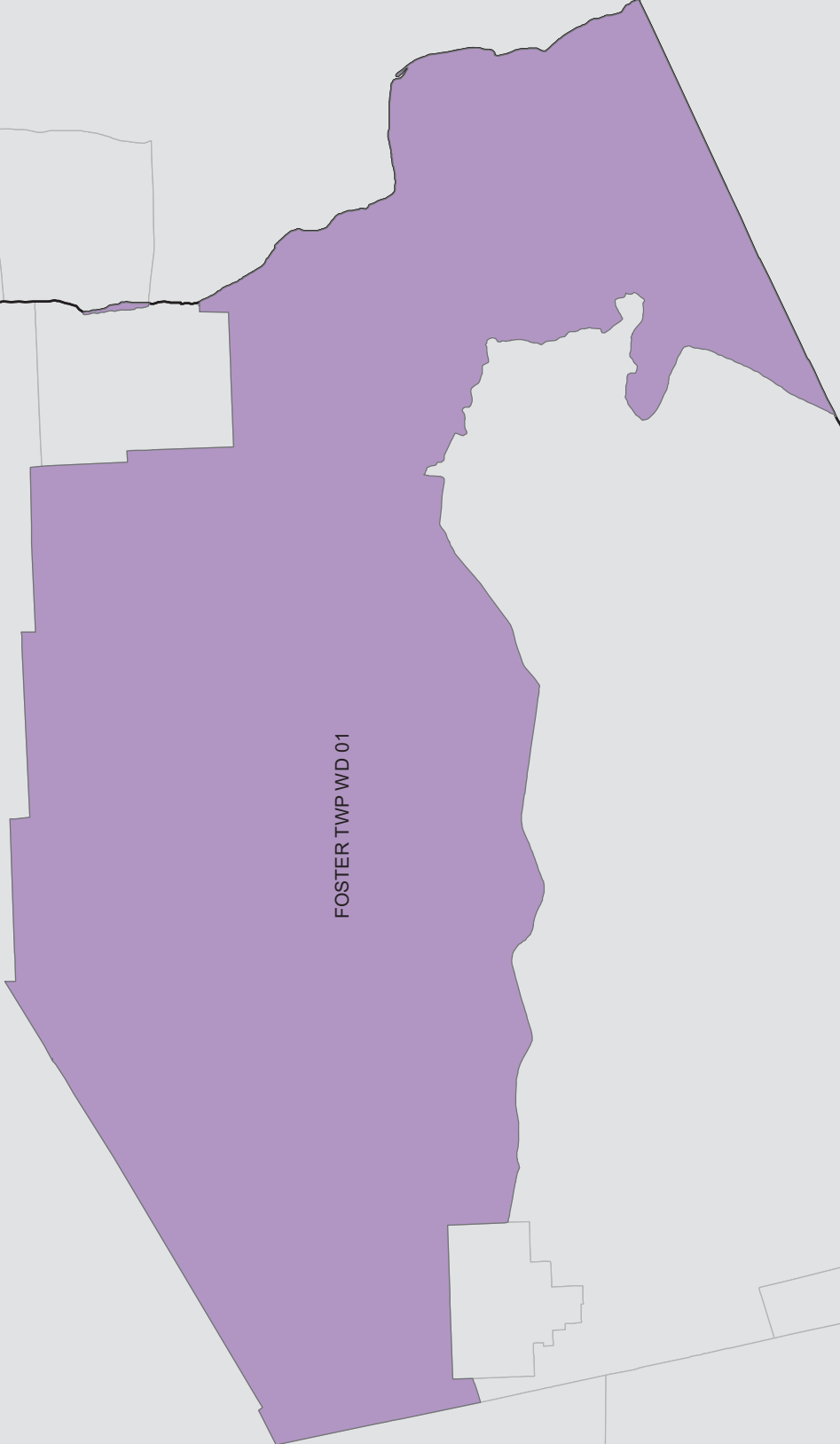
HERMITAGE VTD SW ED 03

Mercer County

HERMITAGE VTD SW ED 03

HERMITAGE VTD SW ED 03
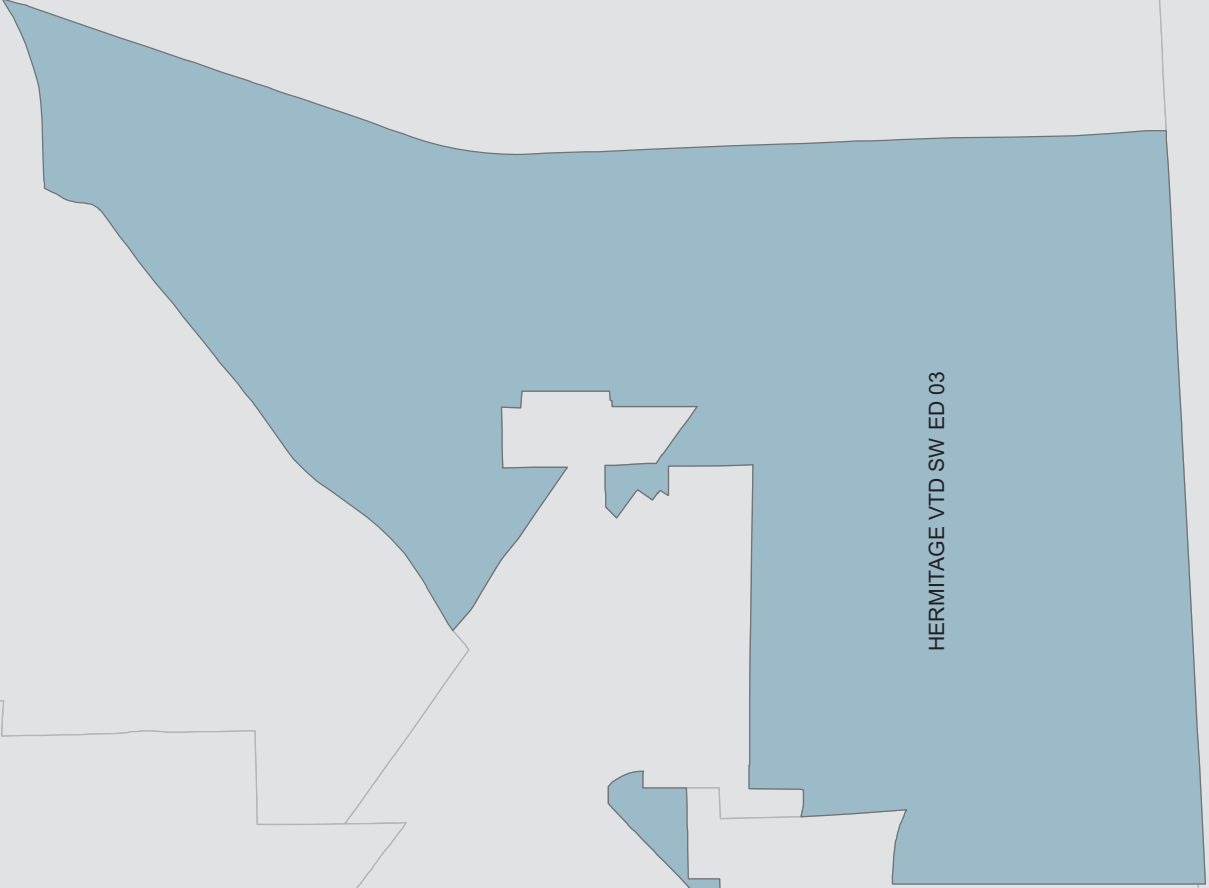
PINE TWP VTD 01

Mercer County
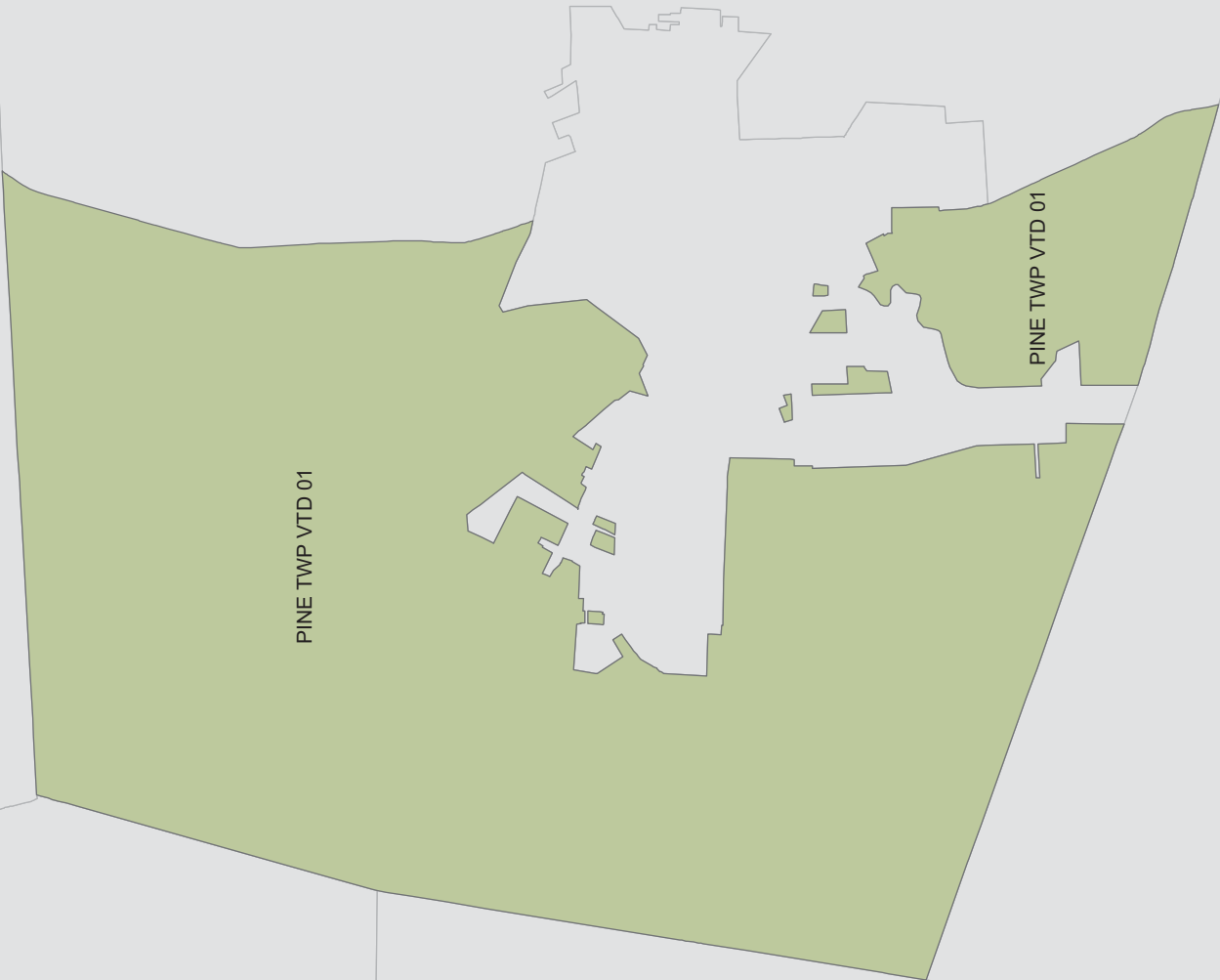
PINE TWP VTD 01

PINE TWP VTD 01

SHARON VTD 02 ED 02

Mercer County

SHARON VTD 02 ED 02
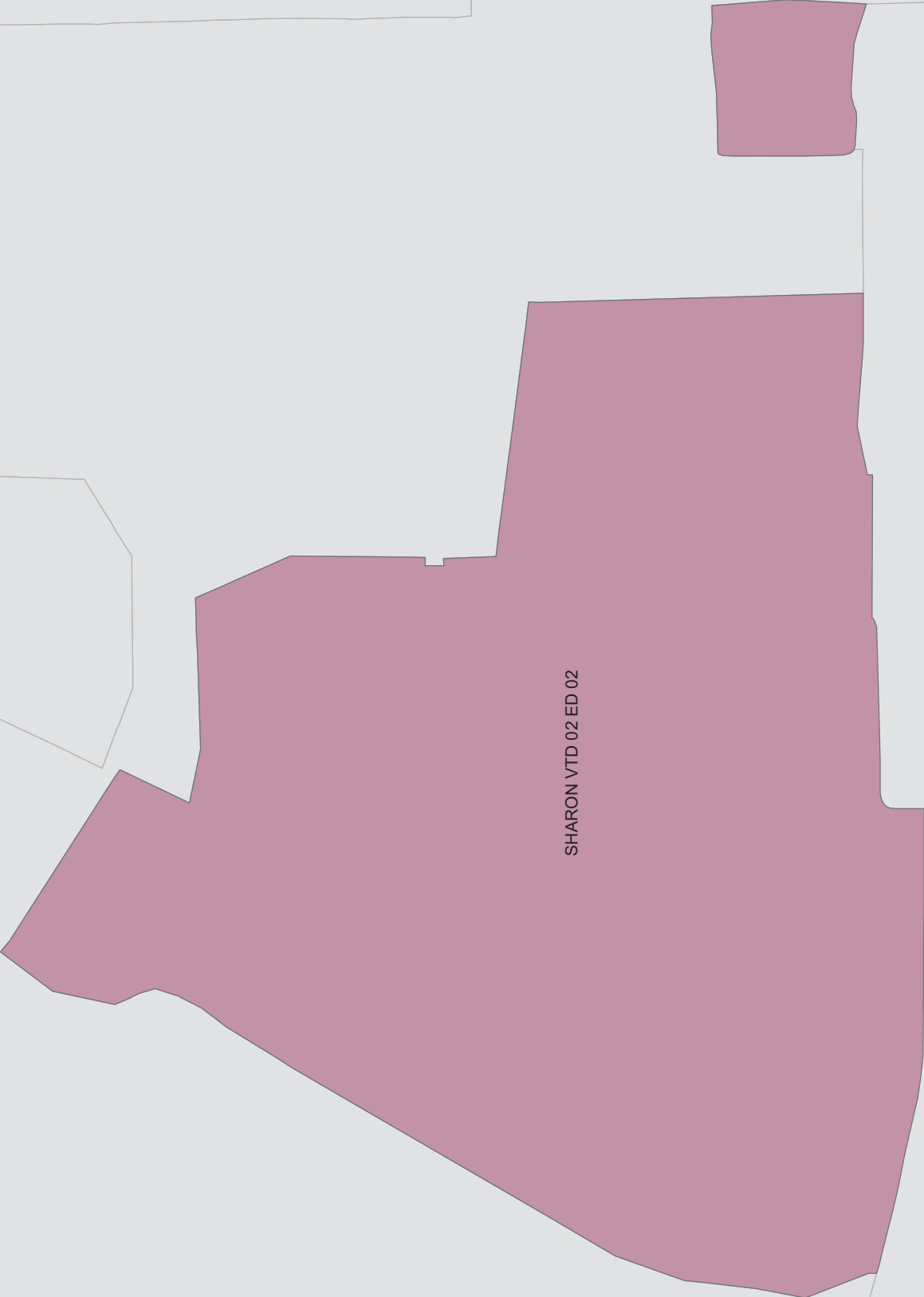
LOWER PROVIDENCE TWP VTD 03 ED 01
Montgomery County
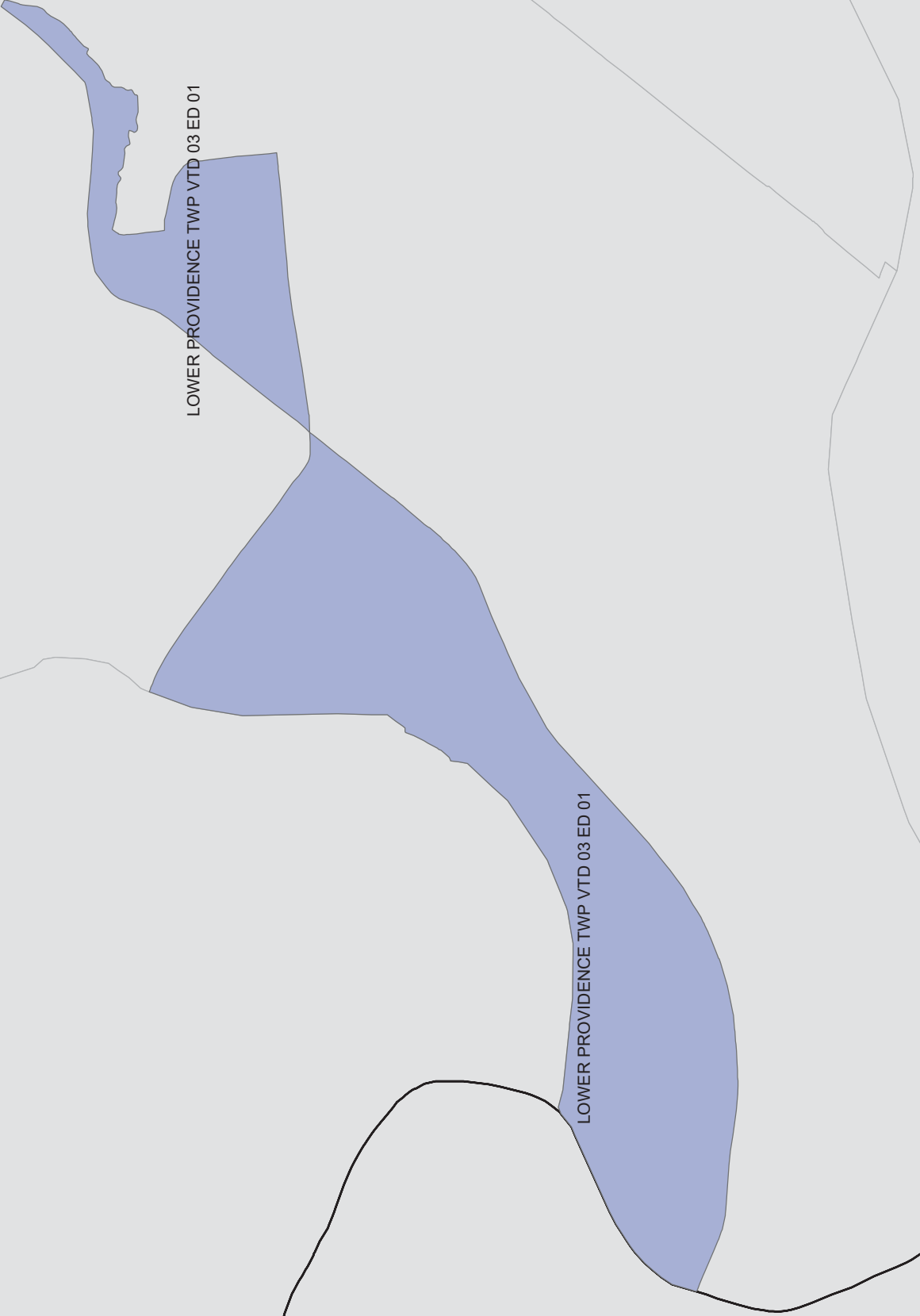
LOWER PROVIDENCE TWP VTD 03 ED 01

LOWER PROVIDENCE TWP VTD 03 ED 01

SPRINGFIELD TWP VTD 01 ED 01
Montgomery County
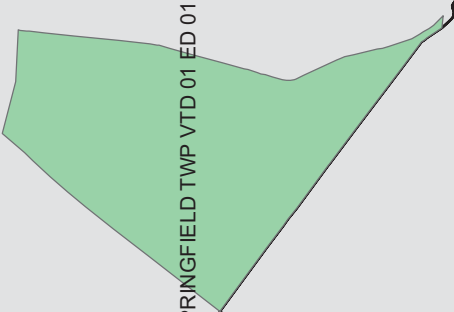
SPRINGFIELD TWP VTD 01 ED 01
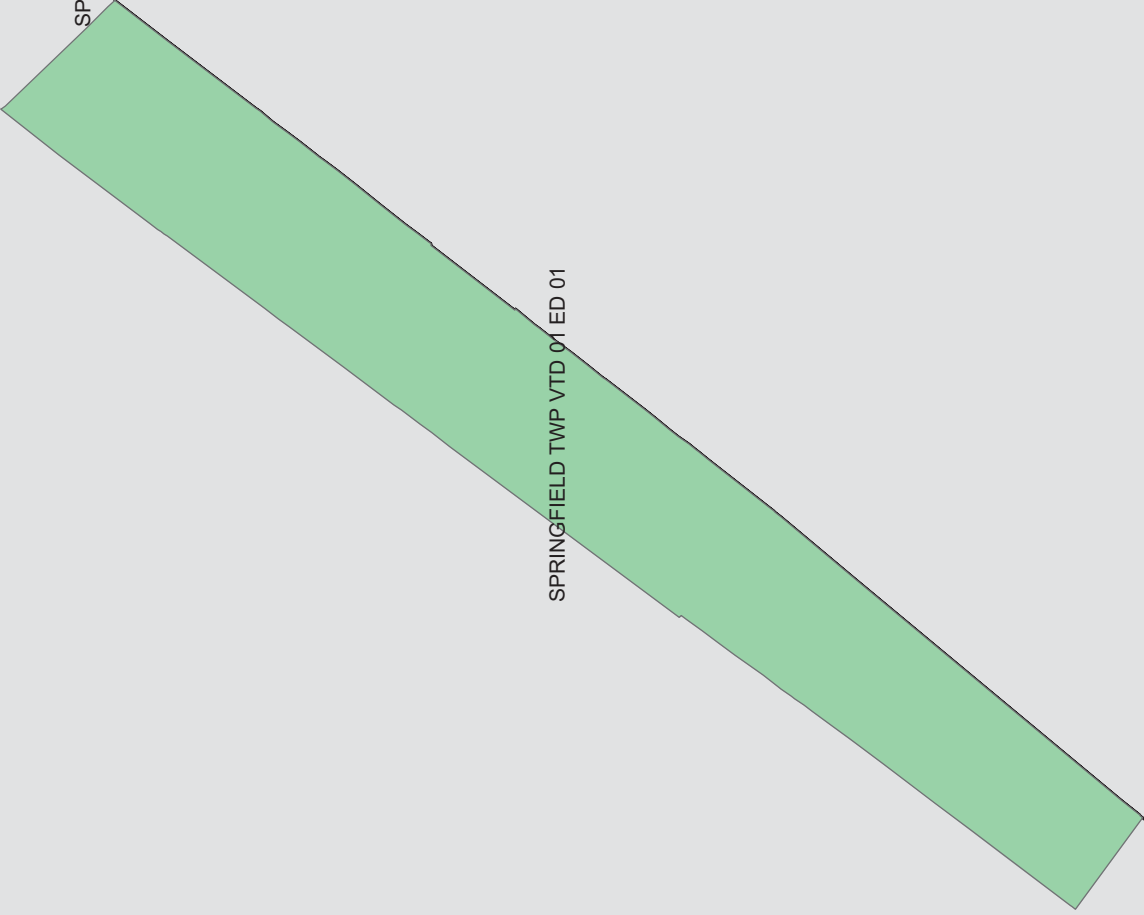
SPRINGFIELD TWP VTD 01 ED 01

UPPER DUBLIN TWP VTD 05 ED 01 HD153

Montgomery County

UPPER DUBLIN TWP VTD 05 ED 01 HD153

UPPER DUBLIN TWP VTD 05 ED 01 HD153
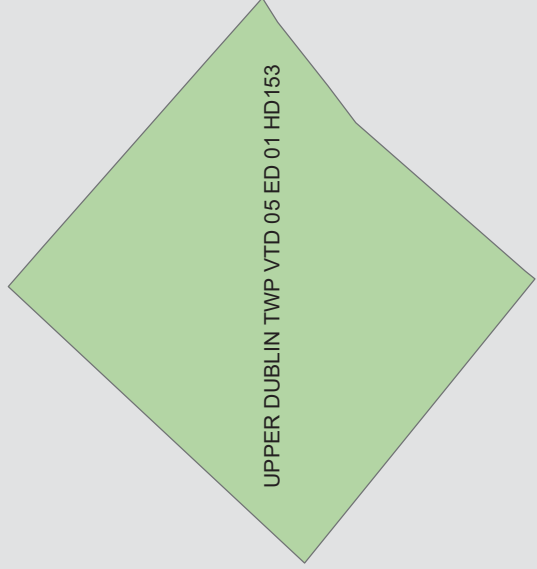
MAHONING TWP DIST 02

Montour County

MAHONING TWP DIST 02

MAHONING TWP DIST 02
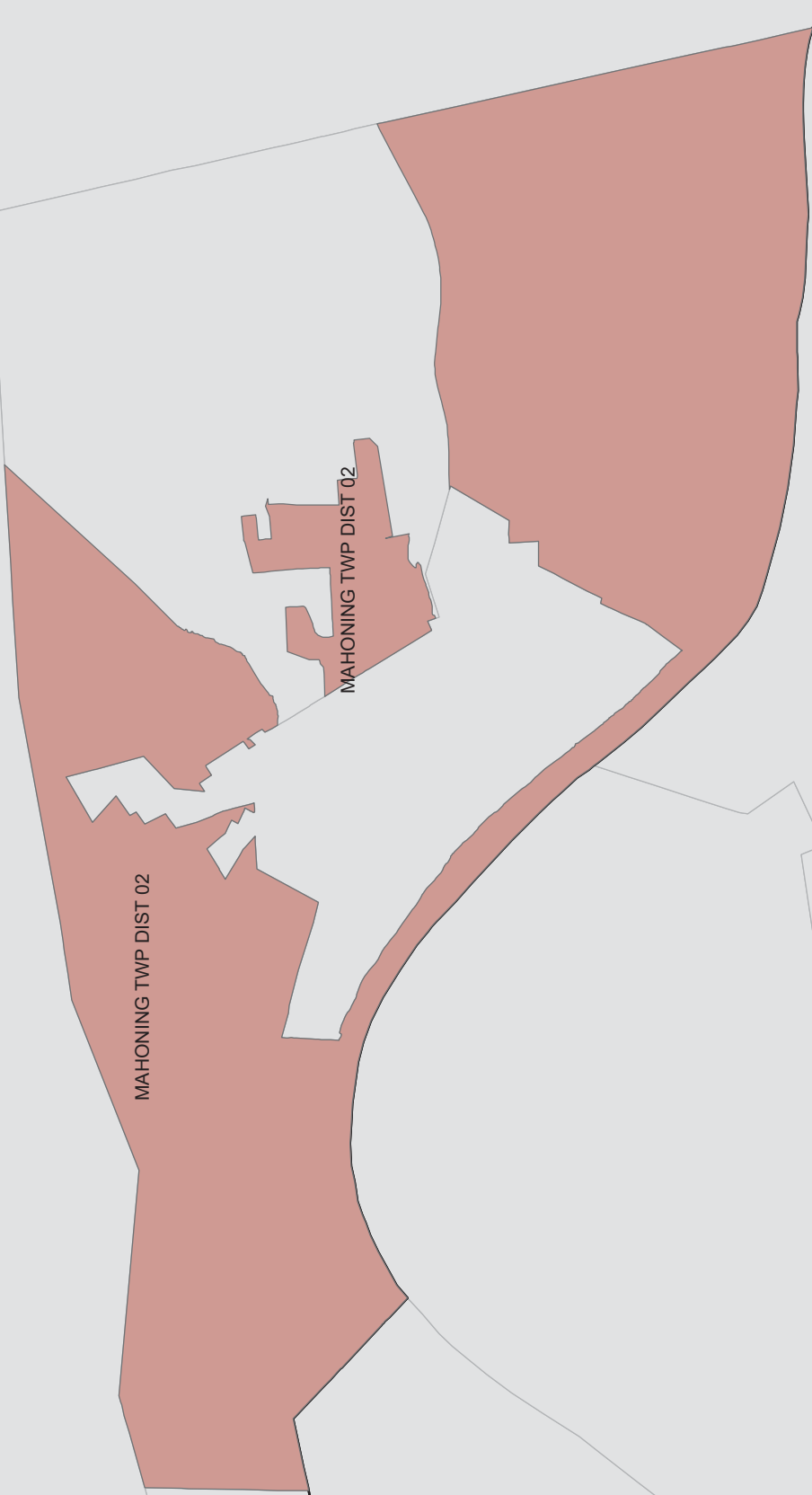
BETHLEHEM TWP WD 03 DIST 04
Northampton County

BETHLEHEM TWP WD 03 DIST 04

BETHLEHEM TWP WD 03 DIST 04

BETHLEHEM TWP WD 03 DIST 04

LOWER SAUCON 01

LOWER SAUCON 01
Northampton County

LOWER SAUCON 01

PALMER TWP VTD UPPER EASTERN

Northampton County

PALMER TWP VTD UPPER EASTERN

PALMER TWP VTD UPPER WESTERN

Northampton County

PALMER TWP VTD UPPER WESTERN

WASHINGTON TWP VTD UPPER

WASHINGTON TWP VTD UPPER
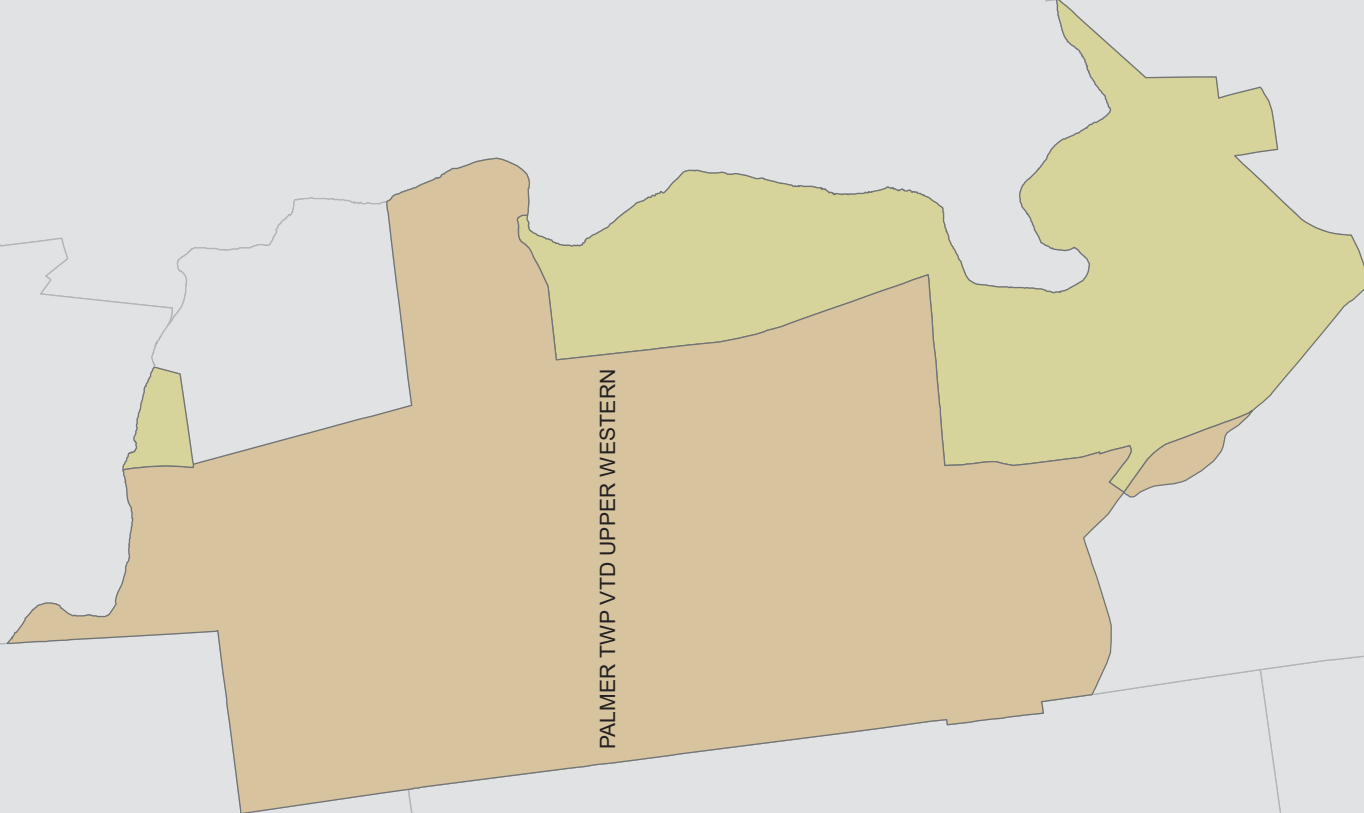
WASHINGTON TWP VTD UPPER

Northampton County
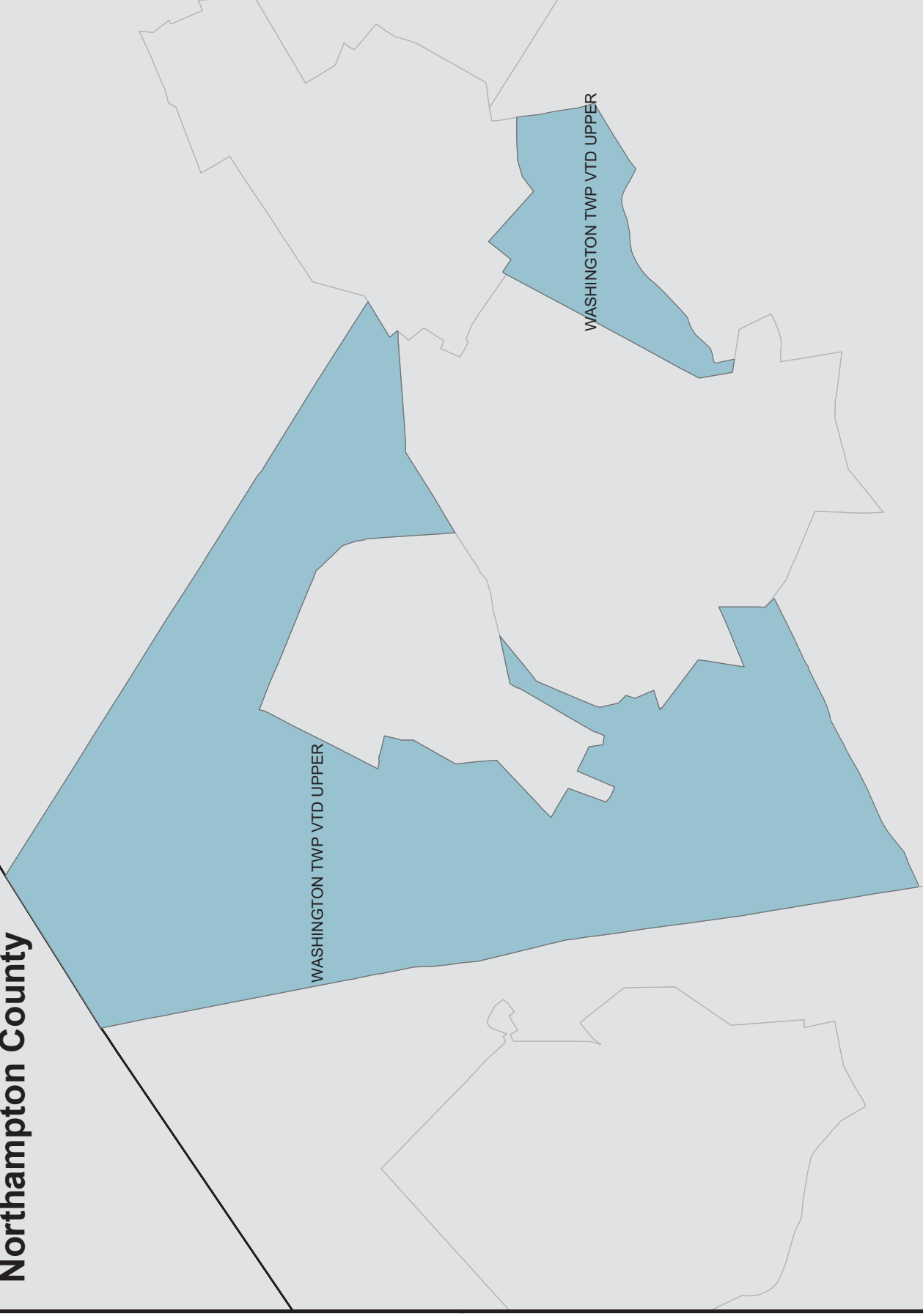
MILTON WD 03
Northumberland County

MILTON WD 03

MILTON WD 03

PHILADELPHIA WD 08 PCT 15

Philadelphia County

PHILADELPHIA WD 08 PCT 15

PHILADELPHIA WD 08 PCT 15
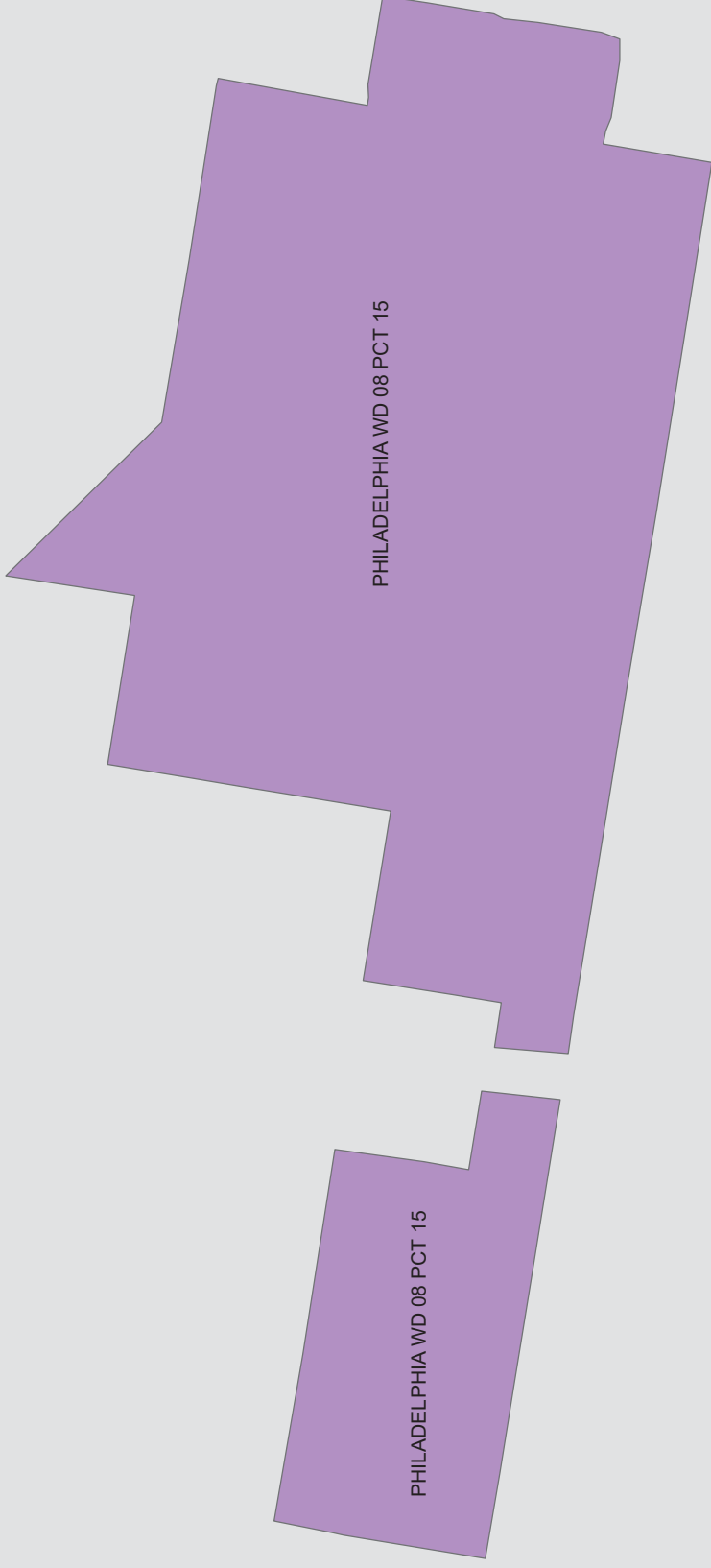
PHILADELPHIA WD 52 PCT 07

Philadelphia County

PHILADELPHIA WD 52 PCT 07

PHILADELPHIA WD 52 PCT 07

NORTH MANHEIM TWP DIST PCT 01

Schuylkill County

NORTH MANHEIM TWP DIST PCT 01
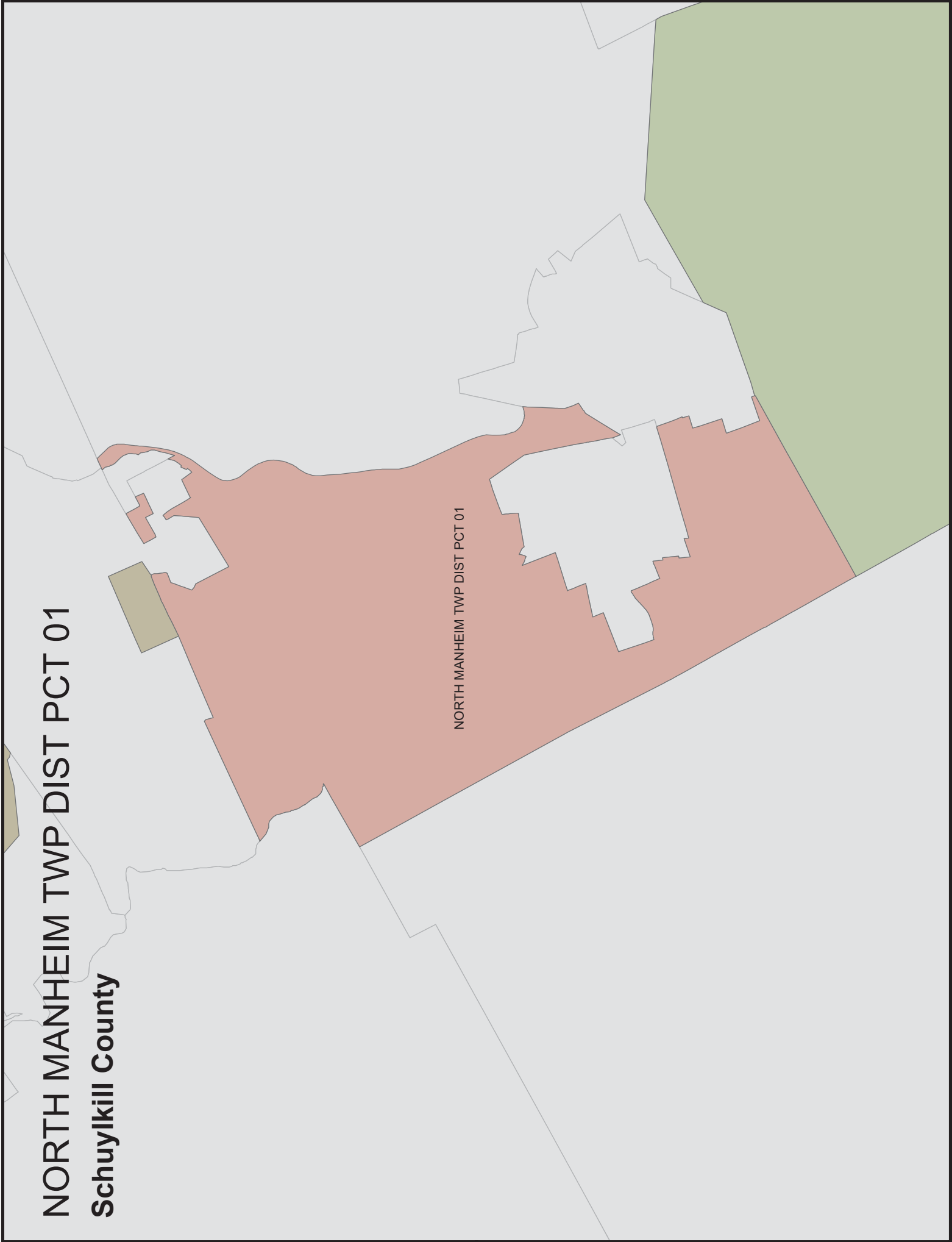
NORWEGIAN TWP DIST CURRANS

Schuylkill County

NORWEGIAN TWP DIST CURRANS
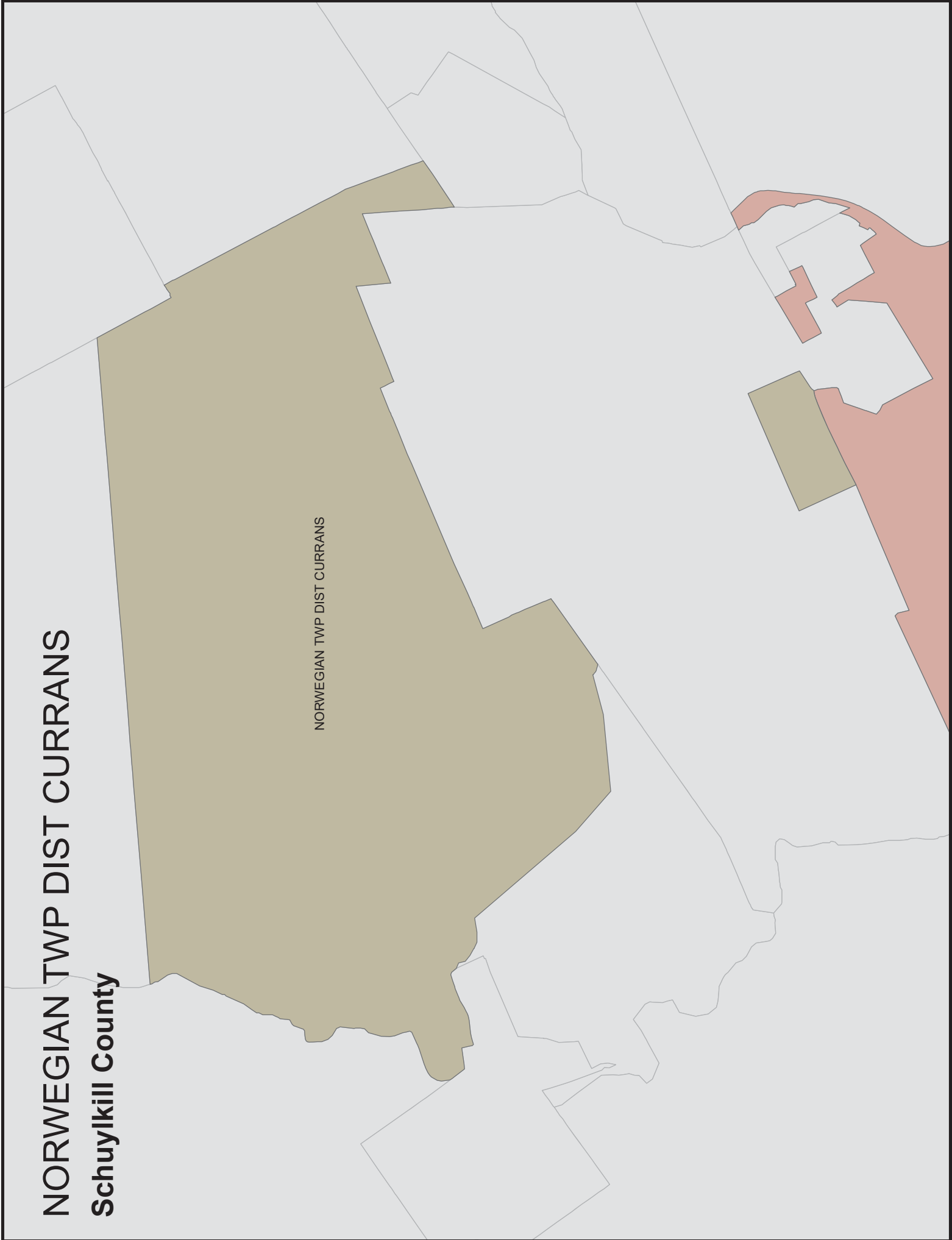
SOUTH MANHEIM TWP Voting District

Schuylkill County

SOUTH MANHEIM TWP Voting District
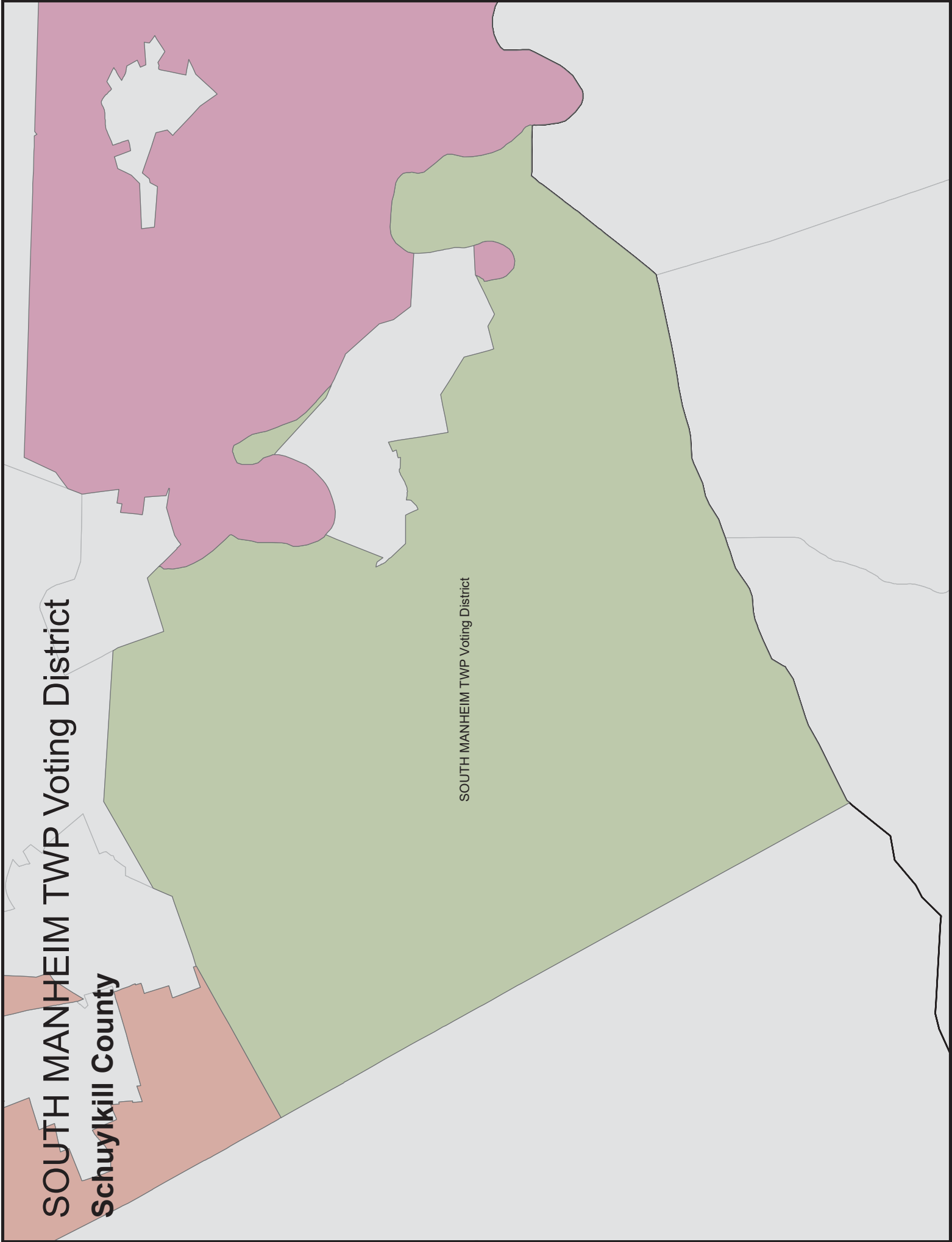
WEST BRUNSWICK TWP VTD SOUTH

Schuylkill County

WEST BRUNSWICK TWP VTD SOUTH
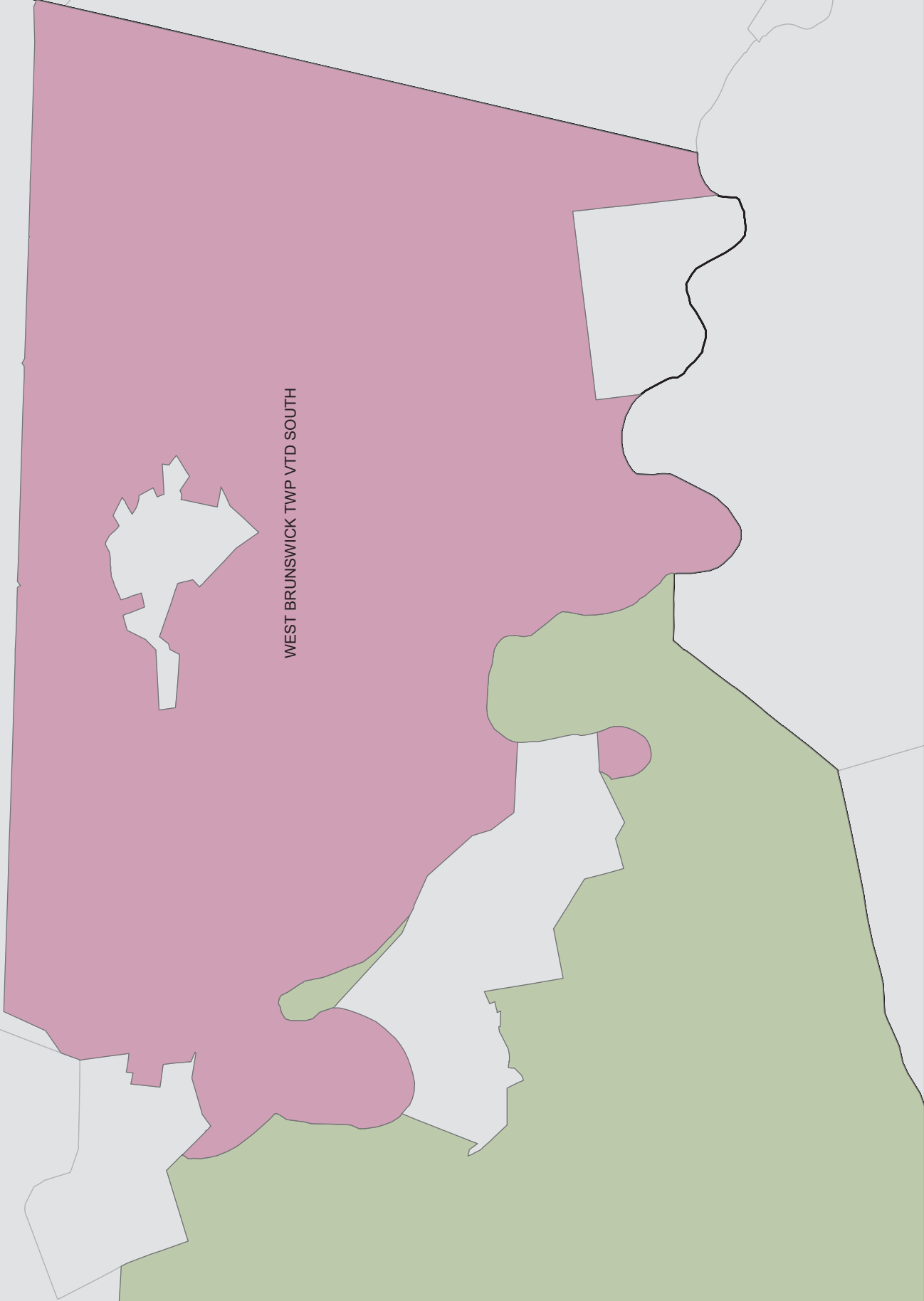
LARIMER TWP Voting District
Somerset County

LARIMER TWP Voting District

MIDDLECREEK TWP Voting District

Somerset County

MIDDLECREEK TWP Voting District
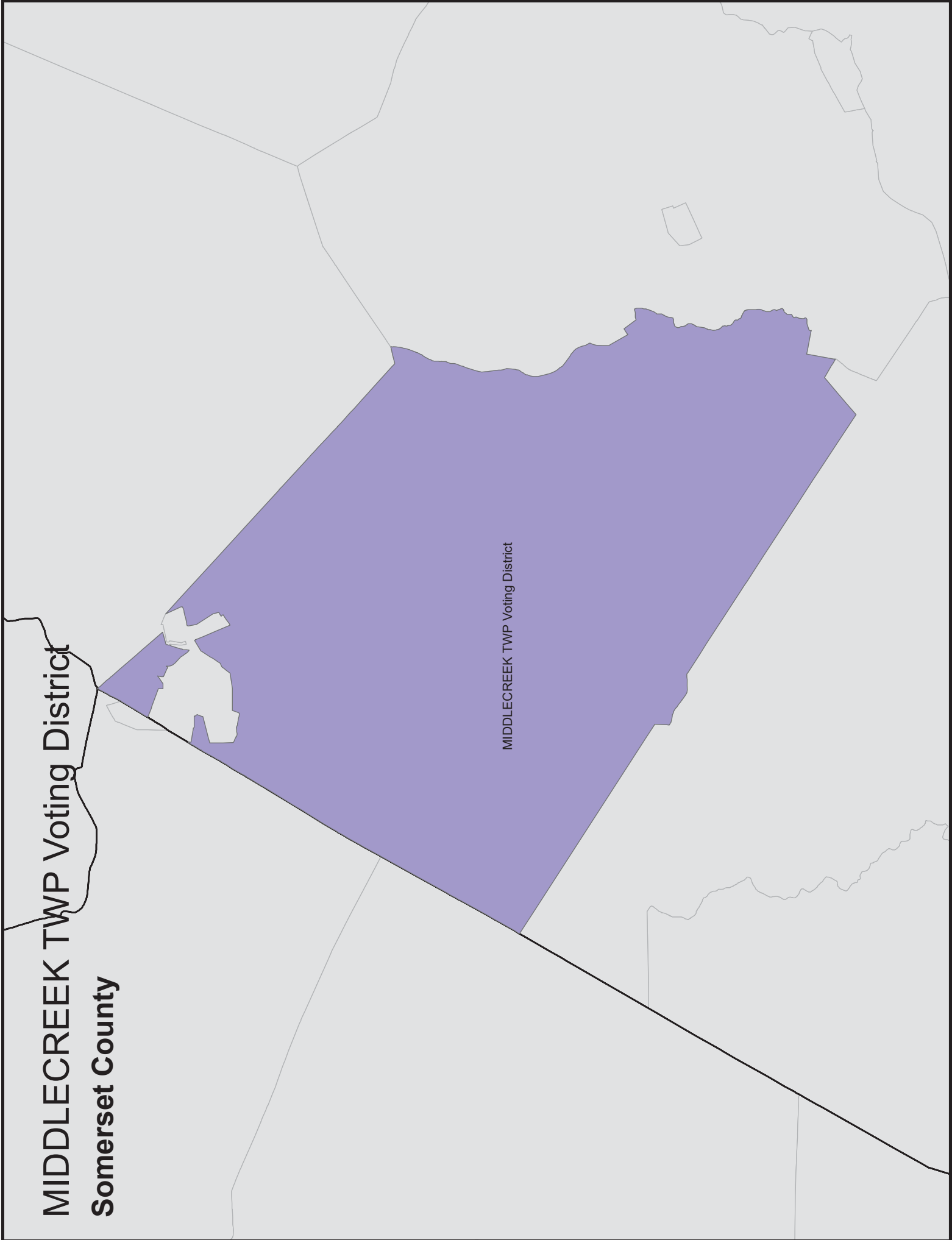
WEST BUFFALO TWP Voting District
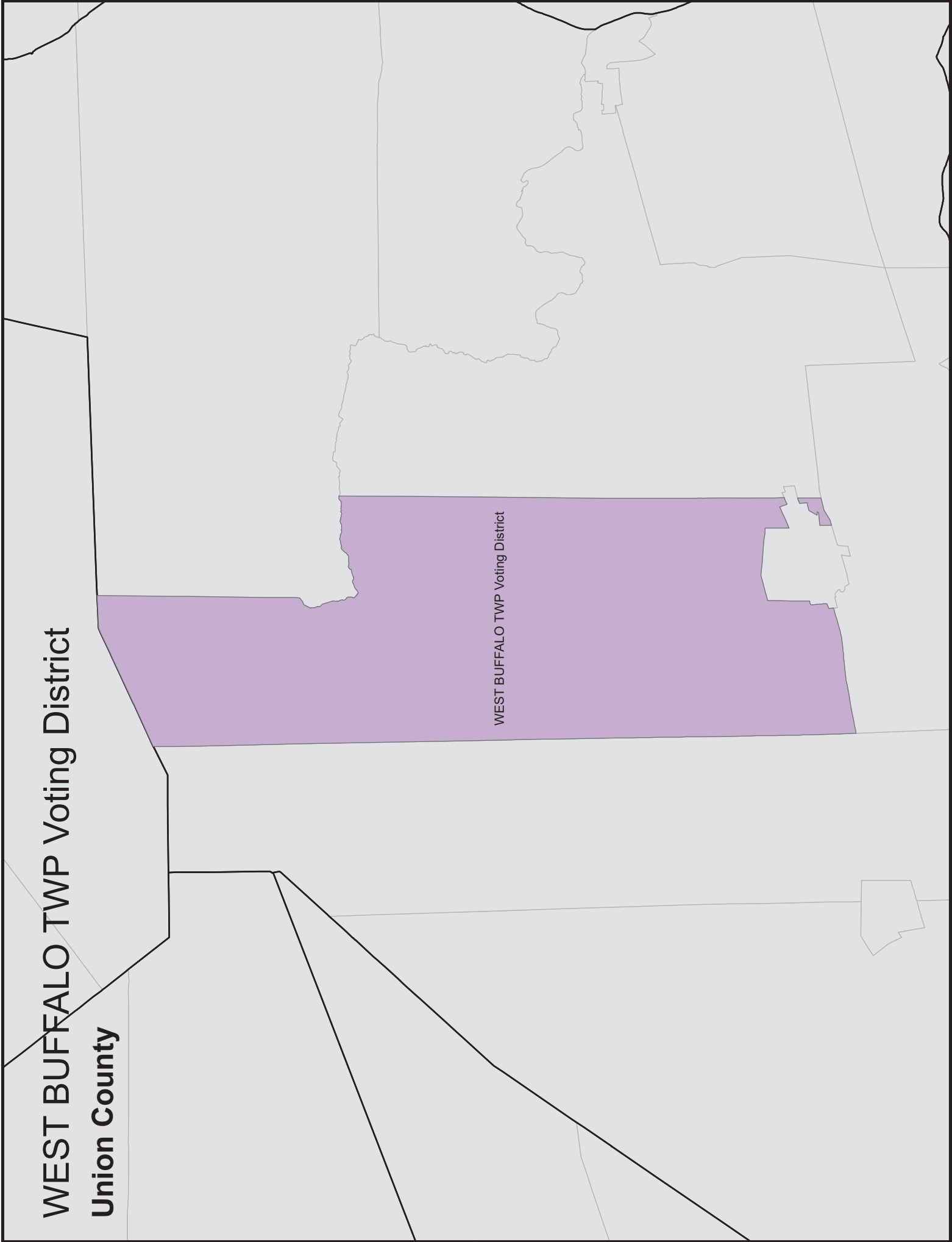
SANDYCREEK TWP Voting District

Venango County

SANDYCREEK TWP Voting District

TRIUMPH TWP Voting District
Warren County

TRIUMPH TWP Voting District
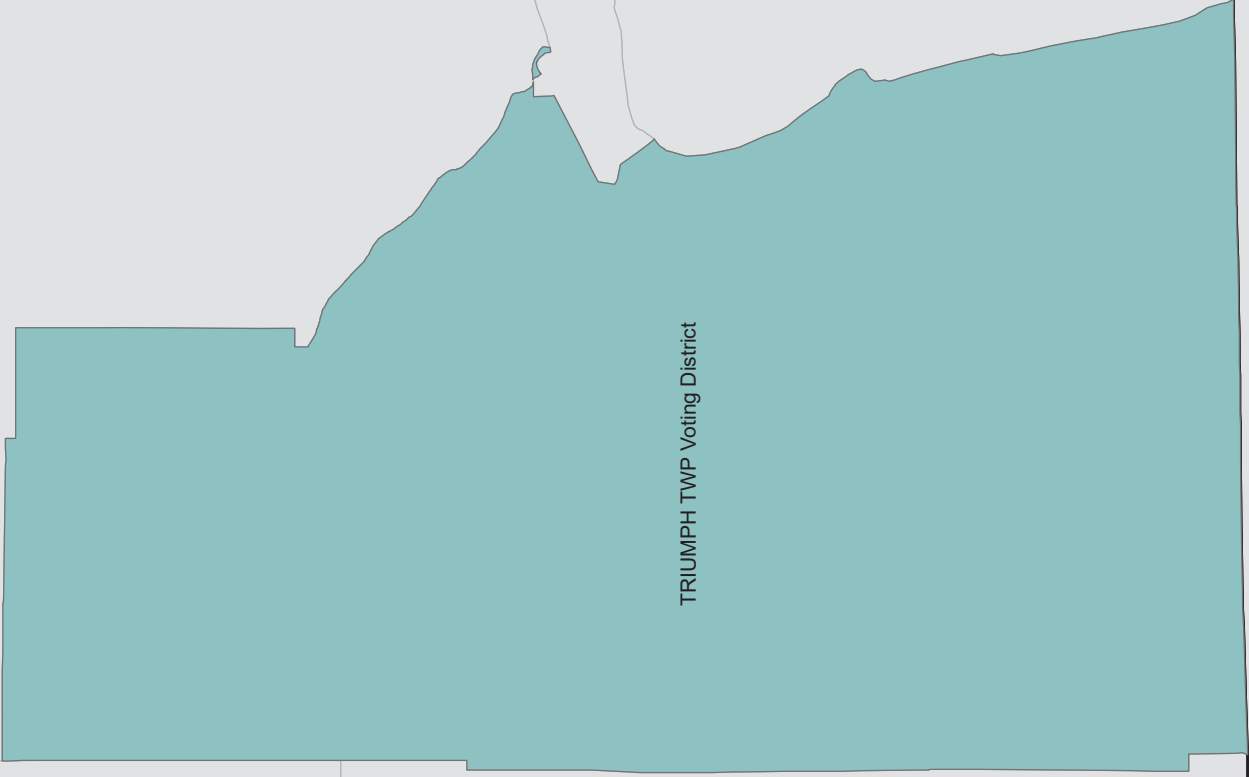
SOUTH FRANKLIN TWP VTD 01
Washington County
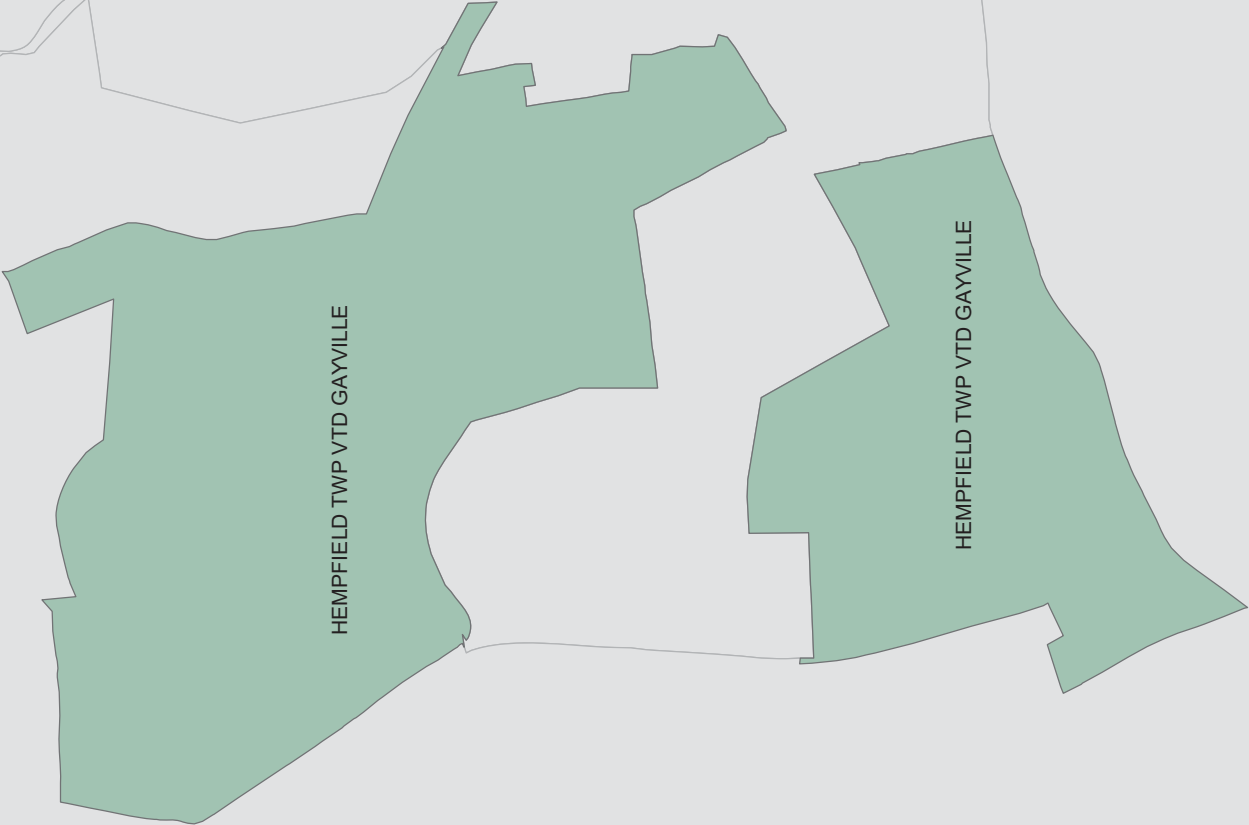
SOUTH FRANKLIN TWP VTD 01

SOUTH FRANKLIN TWP VTD 01
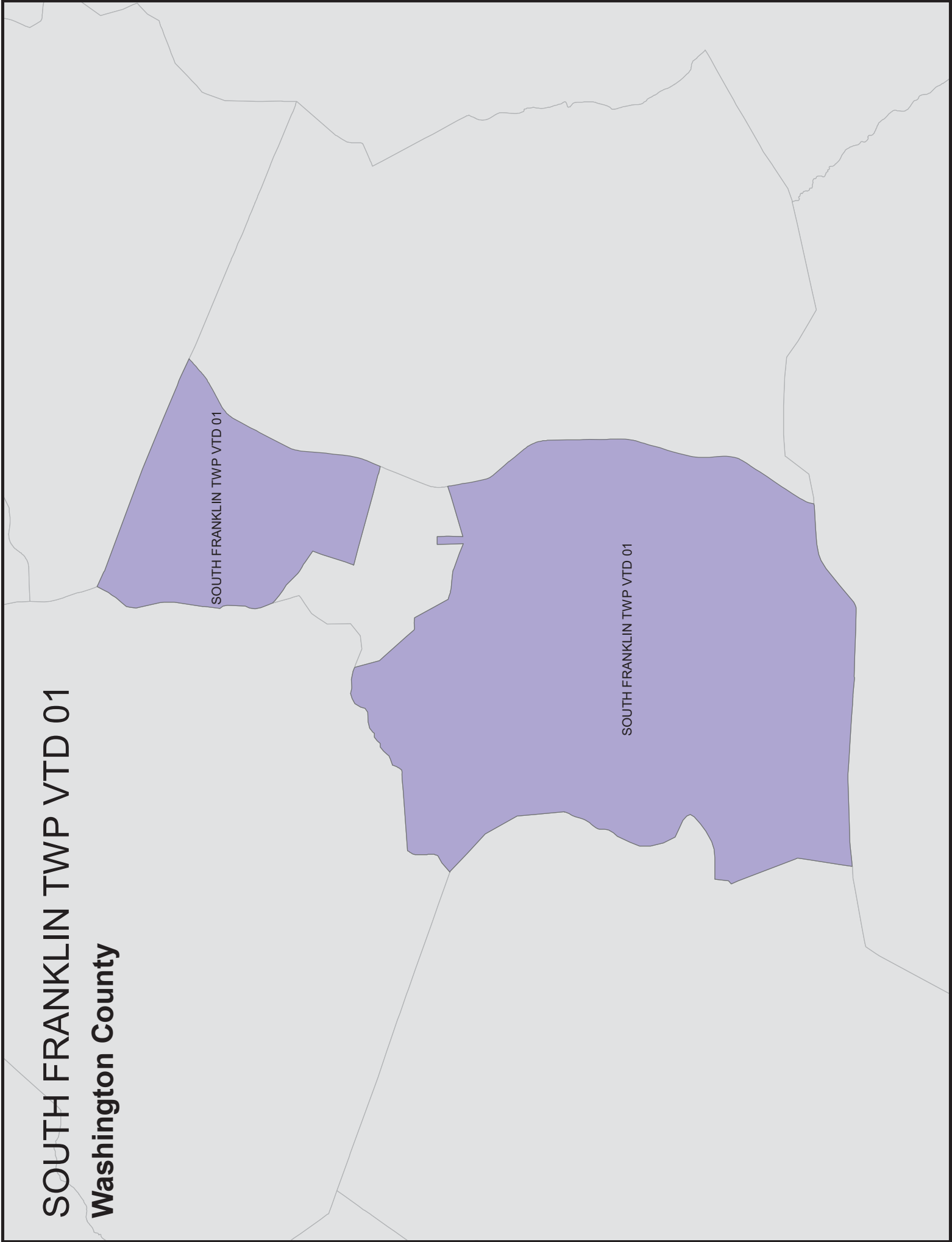
HEMPFIELD TWP VTD GAYVILLE

Westmoreland County

HEMPFIELD TWP VTD GAYVILLE

HEMPFIELD TWP VTD GAYVILLE

LATROBE WD 06
Westmoreland County

LATROBE WD 06

LATROBE WD 06

LATROBE WD 06

NEW KENSINGTON WD 04 PCT 03
Westmoreland County

NEW KENSINGTON WD 04 PCT 03

NEW KENSINGTON WD 04 PCT 03

NEW KENSINGTON WD 04 PCT 03
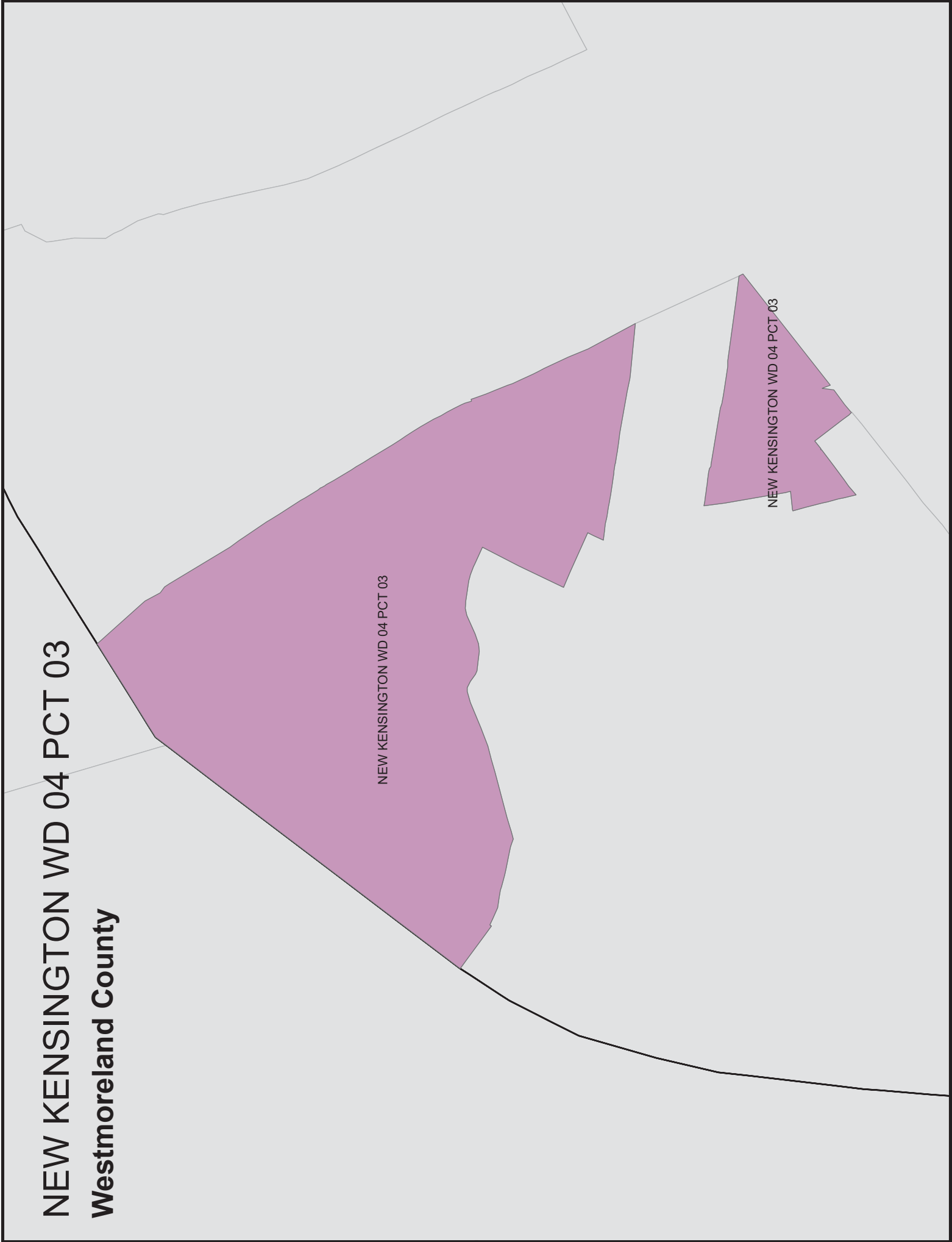
HOPEWELL TWP Voting District
York County

HOPEWELL TWP Voting District
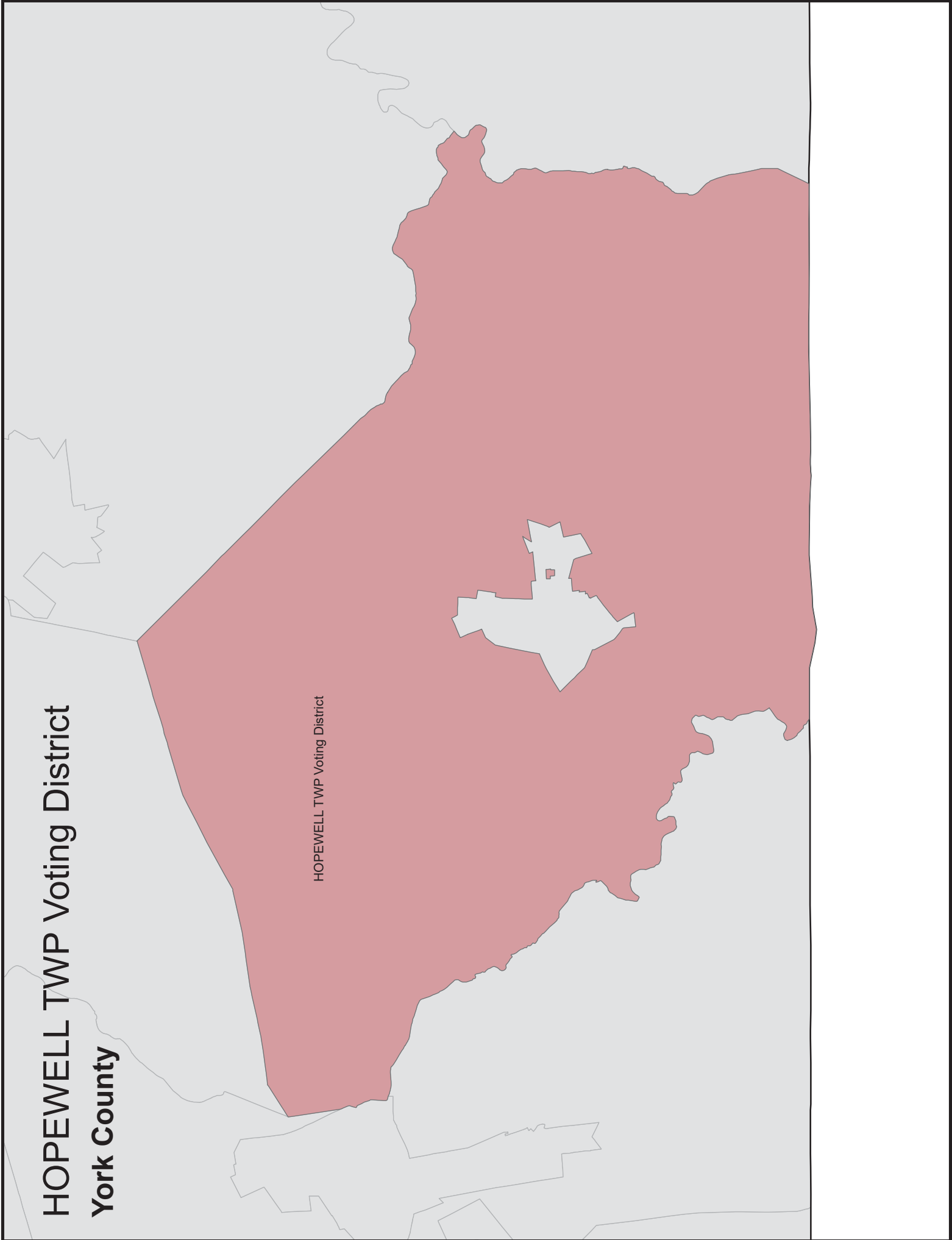
SPRING GARDEN TWP WD 02

York County

SPRING GARDEN TWP WD 02

SPRING GARDEN TWP WD 02
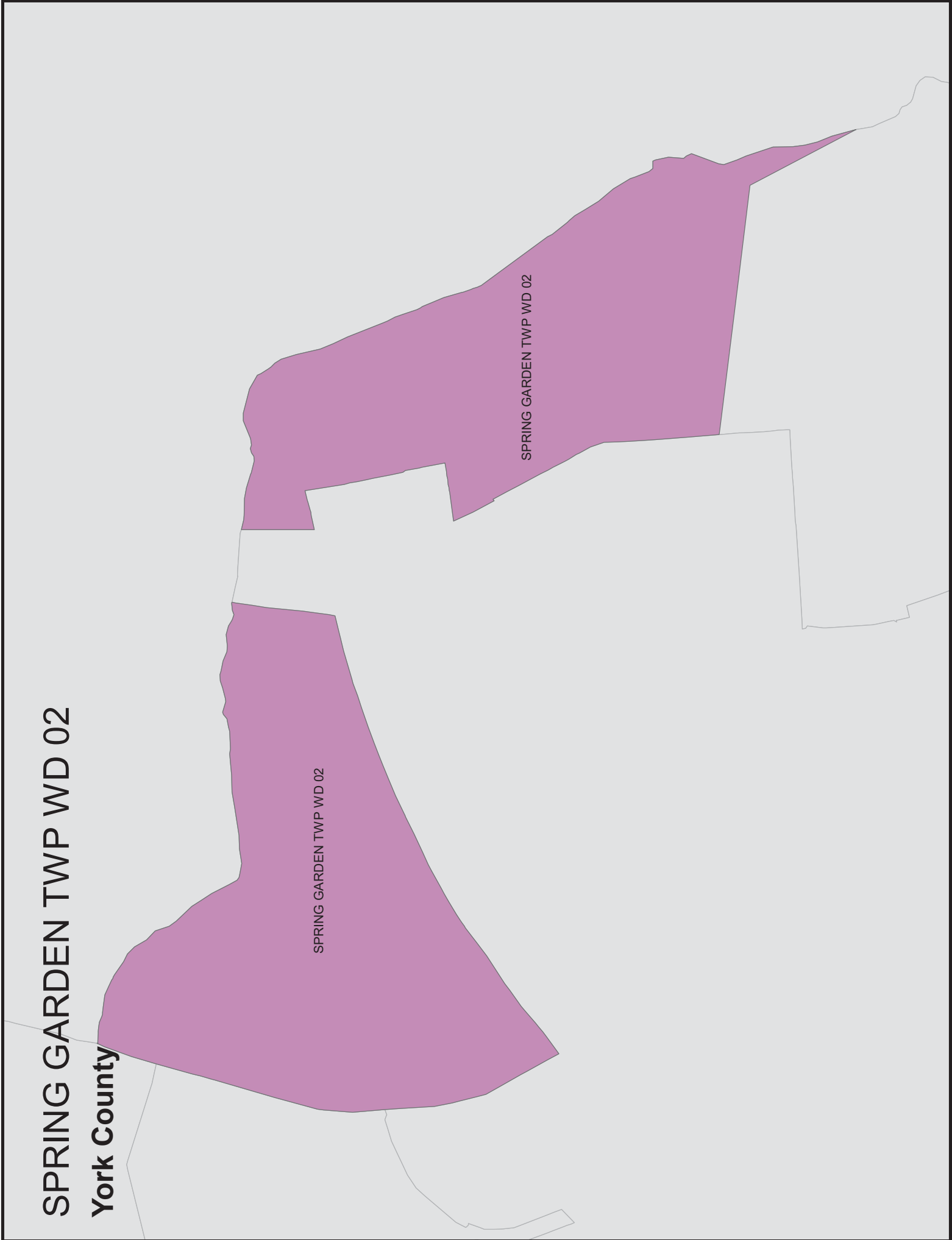
WEST YORK DIST 01

York County
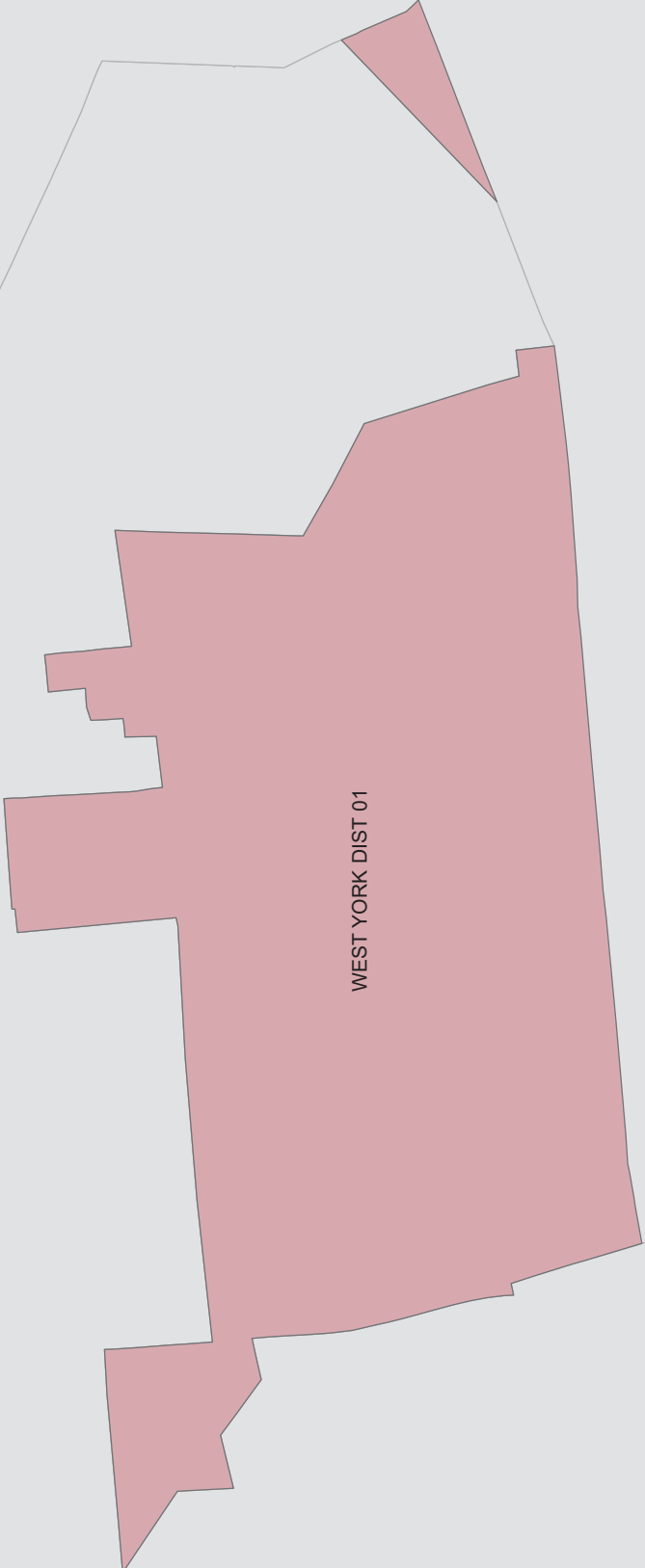
WEST YORK DIST 01

Preliminary Congressional Plan Amendment
Based on Holt Map

Preliminary Congressional Plan Amendment
Based on Holt Map

Preliminary Congressional Plan Amendment
Based on Holt Map

DISTRICT 1

Legend:
County
Municipalities
District 1

0 — 3.75 — 7.5 — 15 Miles

Preliminary Congressional Plan Amendment
Based on Holt Map

Bucks

BENSALEM

LOWER
SOUTHAMPTON

Ward 66

Ward 58

LOWER
MORELAND

Ward 65

Ward 57

Ward 63

Ward 56

Ward 64

Ward 41

ROCKLEDGE

Ward 53

Ward 54

Ward 55

Ward 62

Philadelphia

Ward 23

PHILADELPHIA

Ward 45

ABINGTON

Ward 35

Ward 33

Ward 25

JENKINTOWN

Ward 42

Ward 31

CHELTENHAM

Ward 61

Ward 7

Ward 18

Ward 49

Ward 19

UPPER DUBLIN

Ward 43

Ward 37

Ward 20

Ward 5

Ward 10

Ward 17

Ward 11

Ward 16

Ward 47

Ward 14

Ward 2

Ward 1

SPRINGFIELD

Ward 50

Ward 13

Ward 12

Ward 15

Ward 8

Ward 39

WHITEMARSH

Ward 59

Ward 28

Ward 32

Ward 29

Ward 30

Ward 26

Ward 22

Ward 38

Ward 36

Montgomery

Ward 9

Ward 21

Ward 52

Ward 52

Ward 6

Ward 24

Ward 27

Ward 48

	County
	Municipalities
	District 2

N
W E
S

0   1.25   2.5   5 Miles

DISTRICT 3

Preliminary Congressional Plan Amendment Based on Holt Map

Legend:
- County
- Municipalities
- District 3

N W E S

Miles
0 1 2 4

Counties/Municipalities labeled:
ROCKLEDGE, JENKINTOWN, CHELTENHAM, SPRINGFIELD, WHITEMARSH, CONSHOHOCKEN, WEST CONSHOHOCKEN, UPPER MERION, PLYMOUTH, LOWER MERION, Montgomery, NARBERTH, RADNOR, HAVERFORD, UPPER DARBY, Delaware, MILLBOURNE, EAST LANSDOWNE, YEADON, LANSDOWNE, CLIFTON HEIGHTS, ALDAN, DARBY, COLLINGDALE, COLWYN, SHARON HILL, GLENOLDEN, FOLCROFT, MORTON, RIDLEY, RUTLEDGE, Philadelphia

Wards labeled:
Ward 1, Ward 2, Ward 3, Ward 4, Ward 5, Ward 6, Ward 7, Ward 8, Ward 9, Ward 10, Ward 11, Ward 12, Ward 13, Ward 14, Ward 16, Ward 17, Ward 18, Ward 19, Ward 20, Ward 21, Ward 22, Ward 23, Ward 24, Ward 25, Ward 26, Ward 27, Ward 28, Ward 29, Ward 30, Ward 31, Ward 32, Ward 33, Ward 34, Ward 35, Ward 36, Ward 37, Ward 38, Ward 39, Ward 40, Ward 42, Ward 43, Ward 44, Ward 45, Ward 46, Ward 47, Ward 48, Ward 49, Ward 50, Ward 51, Ward 52, Ward 53, Ward 54, Ward 56, Ward 59, Ward 60, Ward 61, Ward 62, Ward 63

Preliminary Congressional Plan Amendment
Based on Holt Map

Legend
- County
- Municipalities
- District 4

Counties: Lehigh, Berks, Bucks, Montgomery, Chester, Delaware, Philadelphia

Municipalities (selected labels):
TINICUM, SOLEBURY, BUCKINGHAM, WRIGHTSTOWN, NORTHAMPTON, UPPER SOUTHAMPTON, LOWER SOUTHAMPTON, LOWER MORELAND, HAYCOCK, PLUMSTEAD, DOYLESTOWN, WARWICK, WARMINSTER, IVYLAND, BRYN ATHYN, UPPER MORELAND, ABINGTON, ROCKLEDGE, JENKINTOWN, CHELTENHAM, BEDMINSTER, NEW BRITAIN, WARRINGTON, CHALFONT, HORSHAM, UPPER DUBLIN, SPRINGFIELD, PHILADELPHIA, EAST ROCKHILL, SILVERDALE, HILLTOWN, HATFIELD, MONTGOMERY, LANSDALE, LOWER GWYNEDD, AMBLER, WHITEMARSH, NARBERTH, QUAKERTOWN, PERKASIE, SELLERSVILLE, TELFORD, SOUDERTON, NORTH WALES, UPPER GWYNEDD, WHITPAIN, PLYMOUTH, CONSHOHOCKEN, WEST CONSHOHOCKEN, LOWER MERION, HAVERFORD, UPPER DARBY, LANSDOWNE, EAST LANSDOWNE, YEADON, CLIFTON HEIGHTS, ALDAN, EAST DARBY, MILLBOURNE, WEST ROCKHILL, FRANCONIA, TOWAMENCIN, WORCESTER, EAST NORRITON, NORRISTOWN, BRIDGEPORT, UPPER MERION, WEST NORRITON, RADNOR, MARPLE, NEWTOWN, MEDIA, NETHER PROVIDENCE, MILFORD, SALFORD, LOWER SALFORD, SKIPPACK, LOWER PROVIDENCE, EASTTOWN, TREDYFFRIN, EDGMONT, MARLBOROUGH, UPPER SALFORD, PERKIOMEN, COLLEGEVILLE, TRAPPE, WILLISTOWN, SCHWENKSVILLE, MALVERN, UPPER HANOVER, GREEN LANE, LOWER FREDERICK, UPPER FREDERICK, UPPER PROVIDENCE, SCHUYLKILL, PHOENIXVILLE, CHARLESTOWN, EAST WHITELAND, EAST GOSHEN, LIMERICK, ROYERSFORD, SPRING CITY, EAST PIKELAND, WEST WHITELAND, WEST GOSHEN, WEST CHESTER, NEW HANOVER, DOUGLASS, LOWER POTTSGROVE, UPPER POTTSGROVE, WEST POTTSGROVE, POTTSTOWN, NORTH COVENTRY, SOUTH COVENTRY, EAST COVENTRY, EAST VINCENT, WEST VINCENT, EAST NANTMEAL, WEST PIKELAND, UWCHLAN, UPPER UWCHLAN, WEST WHITELAND, WEST CALN, DOWNINGTOWN, EAST CALN, EAST BRADFORD, WEST BRADFORD, WEST WHITELAND, WESTTOWN, THORNBURY, MIDDLETOWN, BIRMINGHAM, NEWLIN, POCOPSON, EAST GREENVILLE, PENNSBURG, RED HILL, BALLY, WASHINGTON, BECHTELSVILLE, BOYERTOWN, COLEBROOKDALE, EARL, AMITY, PIKE, DUBLIN, RICHLAND, TRUMBAUERSVILLE, LOWER MILFORD, UPPER MILFORD, UPPER HANOVER

Scale: 0 3 6 12 Miles

Compass: N, S, E, W

Preliminary Congressional Plan Amendment
Based on Holt Map

DISTRICT 5

Legend

County
Municipalities
District 5

N
W   E
S

0   2.75   5.5   11 Miles

DISTRICT 6

Preliminary Congressional Plan Amendment
Based on Holt Map

Legend:
- County
- Municipalities
- District 6

0 5 10 20 Miles

DISTRICT 7

Preliminary Congressional Plan Amendment
Based on Holt Map

Legend
County
Municipalities
District 7

0 5 10 20 Miles

Preliminary Congressional Plan Amendment
Based on Holt Map

DISTRICT 8

Legend

- County
- Municipalities
- District 8

N W E S

0 5 10 20 Miles

Preliminary Congressional Plan Amendment
Based on Holt Map

DISTRICT 9

Preliminary Congressional Plan Amendment Based on Holt Map

DISTRICT 10

County
Municipalities
District 10

Preliminary Congressional Plan Amendment
Based on Holt Map

Legend:
- County
- Municipalities
- District 11

0   4.25   8.5   17 Miles

Preliminary Congressional Plan Amendment
Based on Holt Map

DISTRICT   12

Legend:
County
Municipalities
District 12

Preliminary Congressional Plan Amendment
Based on Holt Map

Legend:
- County
- Municipalities
- District 13

0 5 10 20 Miles

Preliminary Congressional Plan Amendment
Based on Holt Map

DISTRICT 14

Legend:
- County
- Municipalities
- District 14

Preliminary Congressional Plan Amendment
Based on Holt Map

DISTRICT 15

Legend:
- County
- Municipalities
- District 15

Westmoreland

Washington

Allegheny

0 1.75 3.5 7 Miles

DISTRICT 16

Preliminary Congressional Plan Amendment
Based on Holt Map

Legend

County
Municipalities
District 16

N
W E
S

0 5 10 20 Miles

Counties: Erie, Warren, McKean, Elk, Forest, Clarion, Jefferson, Clearfield, Armstrong, Crawford, Venango, Mercer, Lawrence, Butler, Beaver, Allegheny, Westmoreland

Preliminary Congressional Plan Amendment Based on Holt Map

DISTRICT 17

Legend
- County
- Municipalities
- District 17

N E S W

0   4.25   8.5   17 Miles

Counties: Armstrong, Butler, Westmoreland, Allegheny, Washington, Beaver, Lawrence, Fayette

Municipalities (selected labels): Clearfield, Summit, Jefferson, Clinton, Forward, Winfield, North Buffalo, South Buffalo, Allegheny, Washington, Penn, Hempfield, East Huntingdon, South Huntingdon, Sewickley, North Huntingdon, Penn Hills, Monroeville, Plum, Murrysville, Export, Jeannette, Harrison, Fawn, Frazer, East Deer, Brackenridge, Tarentum, Arnold, New Kensington, Springdale, Cheswick, Harmar, Oakmont, Verona, Indiana, O'Hara, Fox Chapel, Blawnox, Aspinwall, Sharpsburg, Etna, Millvale, Reserve, Shaler, Ross, West View, West Deer, Richland, Hampton, Pine, McCandless, Marshall, Bradford Woods, Franklin Park, Ohio, Kilbuck, Glenfield, Emsworth, Ben Avon, Avalon, Bellevue, Stowe, Kennedy, McKees Rocks, Ingram, Thornburg, Pennsbury, Crafton, Green Tree, Rosslyn Farms, Carnegie, Heidelberg, Scott, Bridgeville, Collier, Mount Lebanon, Castle Shannon, Dormont, Whitehall, Baldwin, Brentwood, Pleasant Hills, Jefferson Hills, South Park, Bethel Park, Upper St. Clair, Peters, Nottingham, Somerset, North Bethlehem, Amwell, North Strabane, South Strabane, Canonsburg, Houston, Chartiers, Cecil, South Fayette, North Fayette, Findlay, Robinson, Midway, McDonald, Mount Pleasant, Burgettstown, Smith, Cross Creek, Hopewell, Hanover, West Middletown, Blaine, Independence, Donegal, Morris, South Franklin, North Franklin, East Washington, Chartiers, Moon, Coraopolis, Neville, Crescent, Leetsdale, Edgeworth, Sewickley, Sewickley Heights, Sewickley Hills, Leet, Bell Acres, Economy, New Sewickley, Harmony, Baden, Ambridge, Aliquippa, Harmony, South Heights, Conway, Freedom, Rochester, Monaca, Center, Potter, Raccoon, Hookstown, Greene, Industry, Shippingport, Ohioville, South Beaver, Darlington, New Galilee, Big Beaver, Koppel, Homewood, Chippewa, Brighton, Beaver, Vanport, Bridgewater, Patterson, Daugherty, Pulaski, Marion, Franklin, Ellport, Ellwood City, New Beaver, Wayne, Ellport, Perryopolis, Connellsville, Fayette City, Belle Vernon, Monessen, Charleroi, Donora, Rostraver, Elizabeth, Clairton, West Mifflin, Dravosburg, Duquesne, McKeesport, Versailles, White Oak, North Versailles, Wilmerding, Turtle Creek, East Pittsburgh, Braddock, Swissvale, Edgewood, Forest Hills, Wilkinsburg, Rankin, Homestead, Munhall, Mount Oliver, Pittsburgh, Sharon