

2014 NEEDS ASSESSMENT

WV INFRASTRUCTURE AND JOBS DEVELOPMENT COUNCIL

DECEMBER 2014

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INTRODUCTION

The West Virginia Infrastructure and Jobs Development Council was established in 1994 under the West Virginia Infrastructure and Jobs Development Act, Chapter 31-15A of the West Virginia Code. The Council is a governmental instrumentality of the State. It's primary role is to evaluate requests from project sponsors seeking to plan, acquire, design, and construct water, sewer, and economic development projects within the State and to approve funding for those projects.

This assessment was conducted pursuant to the requirements contained in Chapter 31-15A-6(b) of the WV Code:

1) The Council is required to develop a comprehensive statewide inventory of water supply systems and sewage treatment systems and an assessment of current and future needs;
2) The assessment identifies the areas of the state which do not have adequate public water or sewage systems;
3) Offers recommendations for the construction of new facilities or the extension or expansion of existing facilities to meet the identified needs;
4) It includes an identification of the obstacles, issues and problems which prevent or inhibit development of adequate infrastructure throughout the state, including financial, governmental, physical, or geographical factors and make recommendations that the council considers appropriate regarding the obstacles, issues or problems identified;
5) The comprehensive inventory and assessment is required to be updated at least once in every three-year period beginning in 1996.

In 2011 the Council, in conjunction with the West Virginia Water Development Authority, implemented a statewide Geographic Information System (GIS) to achieve the following goals related to water and sewer infrastructure:

- Establish a database for existing water and sewer facilities, general locations, and service areas;
- Provide a means to continually update the database as new facilities are proposed and constructed;
- Provide an electronic tracking mechanism for funding applications and project status;
- Provide the Council with situational awareness to support its decision-making process;

This assessment relies heavily on the data acquired from the GIS system in its inventory of existing water and sewer systems.

All data relied upon in this report is current as of December 31, 2014.

EXECUTIVE SUMMARY

Use of the GIS database

In conjunction with its GIS implementation, the Council collected location data on all known existing public water and sewer systems within the State. This data includes the location of treatment facilities as well as the general locations of water distribution and sewer collection lines. This data is available to the public via the Council's website at www.wvinfrastructure.com. Although the GIS data provides the State with the most accurate information obtained to-date, the following limitations must be noted for purposes of this assessment:

1) The GIS relies on the location of known structures to approximate the served and unserved population. Therefore, the accuracy may be impacted by structures that, in reality, are abandoned or uninhabited;
2) In establishing the locations of existing water and sewer lines, the GIS relies on records obtained from utilities who owns and/or operates those facilities. In some areas, data gaps remain because of missing, unreliable, or unavailable utility records;
3) The data provides the location of existing water and sewer lines generally. It does not provide a resolution of detail required to conduct design analysis, i.e., locate manholes, valves, pump stations, pipe sizes, storage tanks, or hydraulic information;
4) The Council updates the existing inventory database whenever a project application is filed by requiring Project Sponsors to provide preliminary maps of the project. However, not all water and sewer projects are required to be filed with the Council and therefore some projects may not be added to the database during the Council's application approval process.

Served and Unserved Areas

Public water systems - approximately 55% of the State's structures are served by a public water system. The number of customers served by water utilities in West Virginia is approximately 652,420.

Public sewer systems – approximately 40% of the State's structures are served by a public sewer system. The number of customers served by sewer utilities in West Virginia is approximately 450,954.

The unserved areas within the State vary considerably between Counties. Appendix F provides a summary of served and unserved structures within the State, while GIS data is provided graphically in Appendix G.

Current/Future Needs

Current funding needs for water and sewer infrastructure based on applications filed with, and approved by the Council, is approximately $288M for water projects and $370M for sewer projects. Projected future need assumes a goal of serving every customer in the State. Based on assumptions made, the cost of providing water service to every remaining unserved household in the State is approximately $2.2 Billion. For sewer service, the estimate is approximately $10.1 Billion.

EXISTING SYSTEM INVENTORIES

Public Water Utilities

A list of existing water systems and customers for each are provided in Appendix A. In total, there are 332 existing public water utilities operating in the State serving approximately 652,420 customers.

In terms of structures, the number of structures within the State that have water service available is approximately 749,136.

Public Sewer Utilities

A list of existing sewer systems and customers for each are provided in Appendix B. In total, there are 295 existing public sewer utilities operating in the State serving approximately 450,954 customers.

The number of structures within the State that have sewer service available is approximately 534,537.

The following table provides a summary of existing systems (utilities) throughout the State:

	WATER	SEWER
Existing utilities[1]	332	295
Customers served[1]	652,420	450,954
Served structures	749,136	534,537
Unserved structures	591,580	806,179
Percent structures served	55%	40%

Also provided in Appendix F is a listing of served and unserved structures in the State, organized by the following geographical and political boundaries:

- County
- Congressional Districts
- Regional Planning and Development Council Areas
- Senatorial Districts
- House Districts

ASSESSMENT OF CURRENT NEEDS

Public Water Systems

Current applications

A list of water project applications received as of 12/31/14 is provided in Appendix C. This includes all preliminary applications approved by the Council as technically feasible, but without committed funding as of 12/31/14. The total estimated costs of these projects exceed $348M, where approximately $60M has been committed. The total estimate cost of current needs, therefore, is approximately $288M.

Public Sewer Systems

Current applications

A list of sewer project applications approved as of 12/31/14 is provided in Appendix D. This includes all preliminary applications approved by the Council as technically feasible, but without committed funding as of 12/31/14. Current estimates places the total cost of current sewer projects at approximately $401M, with $31M already committed. The total estimate of current needs for sewer projects, therefore, is approximately $370M.

Dramatic Increase in Funds Required - Large Sewer Projects

Between 2011 and 2014 the Infrastructure Fund provided, on average, approximately $32M per year in funding for water and sewer projects across the State. However, in 2014 the Council provided commitments totaling approximately $65M for sewer projects alone. This dramatic increase in need was due mostly to funding requests for larger sewer projects that are not typically funded through the Infrastructure Fund. This increase in need, coupled with the existing funding requirements for the Chesapeake Bay/Greenbrier River Basin, has stressed the resources of funding agencies across the State, including the Infrastructure Fund and the WVDEP/CWSRF program.

Combined Sewer Overflows (CSOs)[2]

Based on the list of Long-Term Control Plans filed with WVDEP as of 12/31/14, the requirement to satisfy the State's CSO needs exceeds $1.0 Billion. Below is a list of CSO communities and their estimated total needs for compliance:

UTILITY	ESTIMATED NEED ($)
Barrackville	5,743,960
Beckley	10,000,000
Belington	6,551,377
Benwood	6,756,200
Boone Co PSD	1,500,000
Bridgeport	6,900,000
Buckhannon	3,786,876
Cameron	1,887,400
Cedar Grove	6,000,000
Charleston	256,318,000
Clarksburg	55,020,000
Dunbar	35,000,000
Elkins	23,252,000
Farmington	3,287,500
Flatwoods-Canoe Run	33,000,000
Follansbee	6,306,915
Grafton	17,821,000
Greater Paw Paw PSD	11,493,800
Hinton	7,513,250
Huntington	600,000,000
Keyser	9,882,000
Kingwood	13,000,000
Logan	77,000,000
Marlinton	2,100,000
Marmet	1,812,594
McMechen	3,379,000
Monongah	6,356,007
Morgantown	172,990,000
Moundsville	3,530,000
New Martinsville	58,223,836
Nitro	16,592,538
Parsons	1,275,000
Philippi	14,920,800
Point Pleasant	5,000,000
Richwood	8,691,000
Sistersville	11,952,000
Smithers	1,400,000
Wayne	740,000
Welch	22,691,961
Wellsburg	8,399,400
West Union	2,865,700
Weston	3,634,531
Wheeling	80,000,000
TOTAL ESTIMATED COST	**$1,624,574,645**

FUTURE NEEDS

Definition

For purposes of this assessment, "future need" is an estimate of the costs needed to serve the remaining unserved customers of the entire State.

Methodology

In the absence of large preliminary studies with an enormous scope of work, placing a cost amount on future needs is highly speculative and requires several assumptions to be relied upon, mainly relating to the following:

- Average cost of serving each customer
- The number of unserved customers/households
- The manner in which each customer/household would be served

The average cost of serving each customer assumes that the remaining unserved customers would be provided service through a typical line extension. It does not necessarily take into account the addition of treatment or storage requirements on a per customer basis, which differs greatly for each locale and therefore is not easily estimated on such a broad scale. It also does not take into account alternate methods for providing service, such as decentralized systems.

For water service, a cost per customer of $25,000 is assumed.
For sewer service, a cost per customer of $35,000 is assumed.

Finally, the number of unserved customers/households must be estimated. This assessment uses the difference between the number of households based on US Census data, and the number of customers served based on statistical data filed with the PSC. It should also be noted that a strict count of utility customers will also include non-residential entities, such as businesses, industries, etc. and this must be considered when attempting to estimate the number of unserved households.

COST TO SERVE EVERY HOUSEHOLD/POTENTIAL CUSTOMER

	WATER	SEWER
Number of Households[3]	741,390	741,390
Customers served[1]	652,420	450,954
Difference (unserved)	88,970	290,436
Avg. cost per customer to serve	$25,000	$35,000
Overall need	$2.2 Billion	$10.1 Billion

OBSTACLES, ISSUES AND PROBLEMS

FINANCIAL CONCERNS

Available Funding Levels

Most funding sources, both state and federal, have seen a decrease in the funds available for water and sewer projects in 2014:

- The EPA State Revolving Fund (SRF) programs are largely driven by Congressional budgeting and both programs have seen decreases in the funds allocated for both the CWSRF and DWTRF;
- The Small Cities Block Grant (SCBG/CDBG) program was allocated $12,831,207 in FY2014. However, its FY2015 funding is unknown at the present time and will remain unknown until Congress passes an appropriations bill or a revised budget;
- The Appalachian Regional Commission (ARC) is estimating approximately $4 million will be available for FY2015 grant awards as a "best-case" scenario;
- The Abandoned Mines Lands and Reclamation (DEP-AML) program budget for Calendar Year 2015 is estimated to be approximately $35M, where $15M-$20M of this amount available for waterline construction. DEP-AML foresees a reduction in its funds available for waterline projects due to anticipated reductions in the coal severance income;
- The USDA-RUS anticipates having the same allocation for FY2015 as in FY2014, which was approximately $20,026,000 for loans and $5,537,000 for grants;
- During the 2014 Legislative Session HB101 was enacted, which decreased the deposit to the Infrastructure Fund from excess lottery revenues from a maximum of $40 million to $20 million for FY2015, which results in an income decrease of approximately 40% overall.

Availability of Grant Funds

Unsurprisingly, the most sought-after form of funding for water and sewer infrastructure projects is grants. Unfortunately, this is also the least available of fund types, due mainly to the fact that the largest funding programs were established as revolving funds and therefore rely on loan repayments to replenish and sustain themselves. Regardless, the amount of grant funding available actually serves to make many projects viable and hence proceed to construction. A review of the Infrastructure Fund's project financing closings between FY2012 and FY2014 reflects that approximately 78% of those projects had IJDC grants in their funding packages. Had those grants not been available it is quite possible that most of the projects funded through the Infrastructure Fund over the last three years would not have proceeded to construction at all, or would have proceeded under reduced project scopes.

User Rates

Water and sewer user rates continue to rise in order to meet current utility expense increases and regulatory requirements. Accordingly, the income available for utilities to service the debt associated with borrowing public funds is less. Every utility undertaking a capital project must determine the maximum user rates it is willing to accept in order to construct a project. Although this amount is different for each utility (and project), it will be capped as a direct function of the rates its customers are

willing to pay and/or what the management of the utility is willing to accept. As rates approach these "unacceptable" levels, project sponsors (utilities) may be less willing to take on additional debt (loans) and may only undertake capital projects if grant funds are available. Another probable outcome is that, in the absence of grant funds, utilities will undertake only those projects with a high urgency such as those designed to ensure compliance with regulatory standards and consent decrees versus projects that are not being mandated by law or regulation, such as extensions of service to unserved areas.

GOVERNMENTAL & REGULATORY CONCERNS

Above-ground Storage Tank Act (Senate Bill 373)

During the 2014 Session the Legislature adopted Senate Bill 373, also known as the Above-ground Storage Tank Act, or the "Tank Bill". Among its provisions is a requirement for public water systems to complete source water protection plans and have those plans submitted for approval. A review of the list of water systems indicates that approximately 124 public water utilities, many of them small and with limited financial resources will be required to comply. As of today there has been no clear, available source of public funding identified to meet this new statutory requirement. The total cost of conducting these studies alone could exceed $10M to $20M. Because these plans will not, at least initially, be associated with capital projects it may be more difficult for smaller public water systems to find funding sources in order to pay for the required studies. Many of the existing funding agencies are required to fund capital projects with the limited amount of resources available. Other funding agencies may be reluctant to use its limited funds to pay for standalone planning costs.

More importantly, the costs to construct the capital projects that will ultimately be required for compliance are not yet known. This will depend on the number, scope, and magnitude of the compliance projects across the State. Projects to create additional sources of water, their associated scopes, and costs could vary greatly between water systems. On one hand, a small groundwater utility may be able to find another underground source close-by. On the other hand, even small surface treatment facilities could easily require multi-million dollar projects to construct redundant intake systems or develop additional sources of raw water supply.

Regardless, if the resources of existing funding programs are utilized for this purpose it will reduce the funds available for other much-needed capital projects that are typically financed through the State's existing programs, where those same programs are already experiencing a larger need than current available funds can accommodate.

Chesapeake Bay/Greenbrier River Basin Compliance Requirements – Sewer Plant Discharges

In May 2009, President Obama issued an Executive Order that significantly increased federal environmental regulations in the Chesapeake Bay region, such as:

- It directed the US Environmental Protection Agency (USEPA) to proceed with implementing Total Maximum Daily Load limits (TMDLs) for Chesapeake Bay discharges through state enforcement programs (i.e., WVDEP);
- Gave USEPA enforcement authority if states miss established goals;
- Required the six watershed states (including West Virginia) and the District of Columbia to develop and submit Watershed Implementation Plans (WIPs);

According to the current WIP, controls must be in place 1) by 2017 that would result in 60% of necessary nutrient and sediment reductions compared to current loads and 2) by 2025 that would achieve target loads.

The US Environmental Protection Agency (USEPA) released loading requirements (TMDLs) for the Chesapeake Bay tributaries on December 29, 2010. Accordingly, the West Virginia Division of Environmental Protection (WVDEP) issued its Watershed Implementation Plan to achieve pollution reductions for nitrogen, phosphorus, and sediment. West Virginia is also a partner in the multi-state Chesapeake Bay (CB) Watershed Agreement. The agreement establishes the foundation for water quality improvements. Similarly, in 2008 the WVDEP issued TMDLs for the Greenbrier River Watershed as well in accordance with its existing requirements under the Clean Water Act.

In 2011, Senate Bill 245 was enacted to provide a funding mechanism for infrastructure improvements necessary for compliance with both the Chesapeake Bay and Greenbrier River Basin requirements. The law authorized the issuance of bonds for the purpose of funding the related compliance projects. Eligible projects sponsors were required to submit funding applications to the WVIJDC by June 30, 2012. The estimated costs and grant proceeds were then reported to the WV Legislature in December 2012. In 2014 the bonds were issued, which made available approximately $100M in grant funds for twelve eligible projects whose total project costs could exceed $300M.

PHYSICAL AND GEOGRAPHIC CONCERNS

West Virginia's geography and geology mandate relatively higher costs for underground infrastructure, such as water and sewer projects. This impact exists not only for new construction, but for replacement and rehabilitation projects as well. Real estate to construct new treatment facilities can be difficult and expensive to acquire, which sometimes creates added controversy over plant siting proposals.

Typically, existing systems will expand service to more accessible areas first. As time progresses, the remaining unserved areas will tend to be located in more remote, rugged, and less densely populated areas. This tends to result in higher costs, both on a per-customer and per-mile basis.

RECOMMENDATIONS

1) The need for infrastructure investments and improvements far outweighs the funds available. Determining which projects receive funding commitments should be based on objective, uniform criteria; among the most important of these criteria is a project's readiness to proceed to construction after receiving its funding commitments. This incentivizes project Sponsors to maintain timely project schedules;

2) Ensure that the "utilization rates" of the State's existing funds available is as close to 100% as possible, where "utilization" is defined as a formal, binding commitment of funds. Once the available funds are 100% utilized, then planning for additional procurement of funding, i.e., bond issues, leveraging, etc. should be considered;

3) Funding agencies must continue to coordinate their separate efforts in order to maximize the effectiveness of the State's limited funds available;

4) Continue to provide matches for both EPA-SRF funds administered by the State (CWSRF and DWTRF);

5) Ensure that all federal funds are utilized and matched when necessary by State funds. Other than the Infrastructure Fund, all other primary funding agencies for water and sewer projects in the State receive their funds from federal sources. Therefore, almost every funding agency in the State partnering with the Infrastructure Fund can be considered as requiring a "federal match" in order to ensure its projects are fully funded.

REFERENCES

1) 2013 Statistical Report, Public Service Commission of West Virginia
2) Combined Sewer Overflow (CSO) Long Term Control Plans, WV Department of Environmental Protection
3) US Census Data for 2010

Appendix A

Existing Water Systems and Customers - Private Water Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Alpine Lake Public Utilities Company	507
Alpoca Water Works, Inc.	173
Beckley Water Company	22,856
Bellwood Community Facilities Imp. Corp.	41
Cave Road Utilities, LLC	47
Cheat Mountain Water Company, Inc.	613
Covel Water Works Inc.	43
Fox Glen Utilities, Inc.	254
Hampton Roads Water System	73
Jefferson Utilities, Inc.	2,379
Lakewood Utilities, Inc.	165
Little Kanawha Service Company	–
Mountain View Water System LLC	54
Newell Company, Inc., The	641
Otsego Community Water System	29
P & P Enterprises Utilities, LLC	2
Springer Run Park, LLC	64
Sunny View Acres Water Project	28
Timberline Four Seasons Utilities, Inc.	431
Valley Water & Sewer Services, Inc.	119
West Logan Water Company	419
West Virginia Resorts LLC	*67*
West Virginia-American Water Co.	171,940
Total	200,945
TOTAL SERVED BY WATER IN STATE	652,420

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Municipal Water Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Albright	151
Alderson	724
Anmoore	483
Athens	1,749
Beech Bottom	236
Belington	958
Belmont	436
Benwood	610
Berkeley Springs (Bath)	1,426
Bethlehem	1,137
Beverly	1,048
Bradshaw	70
Bridgeport	4,593
Bruceton	78
Buckhannon	3,983
Burnsville	382
Cairo	162
Camden-on-Gauley	159
Cameron	436
Capon Bridge	304
Carpendale	382
Cedar Grove	482
Ceredo	686
Chapmanville	964
Charles Town	5,716
Chester	1,748
Clarksburg	8,202
Clay	580
Davis	423
Davy	203
Delbarton	145
East Bank	409
Elizabeth	846
Elkins	3,915
Fairmont	13,656
Fairview	370
Falling Springs (Renick)	110
Farmington	217
Follansbee	3,658
Fort Gay	666
Franklin	700
Gary	508

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Municipal Water Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Gilbert	400
Glasgow	339
Glen Dale	1,216
Glenville	899
Grafton	2,690
Grant Town	519
Grantsville	317
Harman	97
Harpers Ferry	836
Harrisville	1,097
Hartford	213
Hillsboro	114
Hurricane	3,519
Huttonsville	86
Junior	243
Kenova	4,020
Kermit	542
Keyser	2,416
Keystone	105
Kingwood	1,412
Lester	-
Lewisburg	4,778
Logan	2,124
Lumberport	728
Man	477
Mannington	955
Marlinton	732
Martinsburg	6,541
Mason	798
Masontown	902
Matewan	913
Matoaka	
McMechen	946
Meadow Bridge	525
Middlebourne	520
Mill Creek	394
Milton	2,494
Monongah	1,418
Moorefield	1,166
Morgantown	25,261
Moundsville	4,627
Mount Hope	782
New Cumberland	621

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Municipal Water Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
New Haven	688
New Martinsville	2,701
Newburg	458
Northfork	191
Nutter Fort	846
Oceana	1,250
Paden City	1,258
Parkersburg	16,130
Parsons	780
Paw Paw	244
Pax	341
Pennsboro	873
Petersburg	1,249
Philippi	1,561
Piedmont	371
Pine Grove	337
Pineville	1,156
Pocahontas	-
Point Pleasant	2,517
Pratt	-
Rainelle	960
Ravenswood	1,893
Reedy	175
Rhodell	91
Richwood	1,127
Ridgeley	321
Ripley	2,453
Rivesville	587
Romney	901
Ronceverte	1,031
Rowlesburg	274
Rupert	551
Salem	824
Shepherdstown	1,653
Shinnston	2,247
Sistersville	
Spencer	2,193
St. Albans	6,218
St. Marys	1,108
Star City	890
Stonewood	931
Summersville	2,611
Terra Alta	815

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Municipal Water Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Thomas	344
Triadelphia	524
Tunnelton	373
Union	382
Valley Grove	328
Vienna	5,462
War	464
Wardensville	355
Wayne	2,345
Weirton	9,509
Welch	1,188
Wellsburg	1,634
West Hamlin	1,001
West Milford	273
West Union	724
Wheeling	13,505
White Sulphur Springs	1,850
Williamson	1,783
Williamstown	1,498
Womelsdorff	113
Worthington	452
Totals	249,405

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Public Service Districts (Water)

NAME OF UTILITY	AVG. # CUSTOMERS
Adrian Public Service District	1,911
Armstrong Public Service District	862
Berkeley County Public Service District	20,578
Big Bend Public Service District	505
Bingamon Public Service District	559
Birch River Public Service District	454
Bluewell Public Service District	2,990
Bolair Public Service District	244
Boone County Public Service District	—
Boone-Raleigh Public Service District	545
Branchland-Midkiff Public Service District	1,183
Brenton Public Service District	137
Brooke County Public Service District	107
Buffalo Creek Public Service District	1,172
Central Barbour Public Service District	1,050
Central Boaz Public Service District	647
Central Hampshire Public Service District	1,610
Century Volga Public Service District	1,049
Cheat View Public Service District	3,625
Chestnut Ridge Public Service District	1,127
Clay Battelle Public Service District	1,641
Clay County Public Service District	659
Clay-Roane Public Service District	854
Claywood Park Public Service District	3,688
Clover Public Service District	358
Cool Ridge-Flat Top Public Service District	1,790
Coon's Run Public Service District	414
Cottageville Public Service District	1,337
Cowen Public Service District	1,117
Craigsville Public Service District	1,947
Crum Public Service District	1,167
Cumberland P.S.D. c/o WV-American Water	74
Danese Public Service District	954
Downs Public Service District	445
East View Public Service District	327
Eastern Wyoming Public Service District	1,239
Elkins Road Public Service District	1,070
Ellenboro-Lamberton Public Service District	233
Enlarged Hepzibah Public Service District	836
Fenwick Mountain Public Service District	245
Flatwoods-Canoe Run Public Service District	1,825
Fountain Public Service District	438

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Public Service Districts (Water)

NAME OF UTILITY	AVG. # CUSTOMERS
Frankfort Public Service District	2,716
Friendly Public Service District (Tyler	812
Gap Mills Public Service District	197
Gauley River Public Service District	1,277
Gilmer County Public Service District	640
Glen Dale Heights Public Service District	223
Glen Rogers Public Service District	105
Glen White-Trap Hill Public Service District	-
Grandview-Doolin Public Service District	884
Grant County Public Service District	2,704
Grant Public Service District	919
Greater Harrison County Public Service	3,311
Green Valley-Glenwood Public Service	4,375
Greenbrier County Public Service District	498
Hammond Public Service District	923
Hamrick Public Service District	727
Hardy County Public Service District	1,955
Hodgesville Public Service District	1,196
Hundred-Littleton Public Service District	272
Huttonsville Public Service District	1,152
Ice's Run Route 250 Public Service District	470
Jane Lew Public Service District Water	645
Jefferson County Public Service District	115
Jumping Branch-Nimitz Public Service	—
Justice Public Service District	239
Kanawha Falls Public Service District	1,407
Kopperston Public Service District	437
Lashmeet Public Service District	—
Lavalette Public Service District	3,754
Leadsville Public Service District	628
Lincoln Public Service District	2,185
Little Creek Public Service District	865
Logan County Public Service District	9,849
Lubeck Public Service District	4,482
Mannington Public Service District	585
Marianna Public Service District	12
Marshall County Public Service District No.	1,274
Marshall County Public Service District No.	666
Marshall County Public Service District No.	1,137
Marshall County Public Service District No.	1,688
Mason County Public Service District	5,846
McDowell County Public Service District	3,058
Midland Public Service District	1,403

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Public Service Districts (Water)

NAME OF UTILITY	AVG. # CUSTOMERS
Mineral Wells Public Service District	2,456
Mingo County Public Service District	4,174
Monumental Public Service District	865
Mount Zion Public Service District	564
Mountain Top Public Service District	920
Nettie-Leivasy Public Service District	1,401
New Haven Public Service District	—
Northern Jackson County Public Service	995
Norton-Harding-Jimtown Public Service	722
Oakland Public Service District	849
Oakvale Road Public Service District	—
Ohio County Public Service District	4,156
Page-Kincaid Public Service District	681
Paw Paw Rt 19 Public Service District	544
Pendleton County Public Service District	755
Pleasant Hill Public Service District	657
Pleasant Valley Public Service District	937
Pleasants County Public Service District	244
Pocahontas County Public Service District	250
Preston County Public Service District #1	1,365
Preston County Public Service District #2	1,396
Preston County Public Service District #4	989
Putnam Public Service District	9,414
Queen Shoals Public Service District	-
Raleigh County Public Service District	4,756
Ravencliff-McGraws-Saulsville Public	1,263
Red Sulphur Public Service District	2,196
River Road Public Service District	633
Salt Rock Public Service District	—
Short Line Public Service District	1,166
Southern Jackson County Public Service	2,275
Southwestern Water District	2,105
Sugar Creek Public Service District	—
Summit Park Public Service District	437
Sun Valley Public Service District	1,267
Taylor County Public Service District	1,048
Tomlinson Public Service District	910
Union-Williams Public Service District	3,175
Valley Falls Public Service District	1,619
Walton Public Service District	—
Washington Pike Public Service District	1,381
Wetzel County Public Service District No. 1	599

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Public Service Districts (Water)

NAME OF UTILITY	AVG. # CUSTOMERS
Wilderness Public Service District	2,030
Totals	189,838

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix A

Existing Water Systems and Customers - Water Associations and Authorities

NAME OF UTILITY	AVG. # CUSTOMERS
Arthurdale Water Association	109
Birchfield Water Association	103
Clinton Water Association, Inc.	3,384
Coal Mountain Water Company	41
Coolfont Mountainside Association, Inc.	120
Crumpler Community Water Association, Inc.	-
Denver Water Association	138
Gallipolis Ferry Water Association, Inc.	425
Garwood Water Maintenance Association	25
Green Camp Community Water Association	23
Hardy County Rural Development Authority	80
Herndon Water Works	-
Hiawatha Water Association	-
Hughes River Water Board	3
Hutchinson Community Water Association	152
J-2-Y-35 Water Association, Inc.	518
Lincoln Heights Improvement Association	85
Little Laurel Run Improvement Association	33
Ministers Run Water Association	144
Montana Water Association	291
Mount Hope Water Association	1,184
Mountain View Water Association	829
New Creek Water Association, Inc.	1,354
O'Toole Water Association, Inc.	-
Pleasants County Development Authority	-
Route 16 Water Corporation	562
Sugar Lane Water Association Inc	-
Tri-County Water Association	990
Webster County Economic Development Authority	207
Whitmer Water Association, Inc.	133
Windmill Gap Water Association	36
Woods Homeowners Association, Inc., The	1,263
Total	12,232

Source, 2013 Statistical Report, Public Service Commission of WV

Appendix B

Existing Sewer Systems and Customers - Private Sewer Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Alpine Lake Public Utilities Company	507
Arthurdale Sewage Company	47
Big Bend Sewer Association, Inc.	105
Butcher Bend Lagoon Maintenance Association	19
Carney Park Landowners/Homeowners Association	67
C & J Utilities, LLC	32
Cacapon South Utility Association, Inc.	78
Cave Road Utilities, LLC	47
Chestnut Point Property Owners Association, Inc.	75
Circle Drive Estates Association	41
Cliffside Operating Association	77
Coolfont Mountainside Association Inc.	120
Eastwood Systems, Inc.	34
Graham Meadows Service District, Inc.	55
Green Acres Utilities	102
Hidden Valley Treatment, Inc.	82
HPSD, LLC	146
Lakewood Utilities, Inc.	165
Linmont Sanitation System, Inc.	81
Little Kanawha Service Company	63
Mountainaire Village	61
Newark Acres Homeowners Association, Inc.	51
Newell Company, Inc., The	443
Ogden Sewer Company	86
P & P Enterprises Utilities LLC	2
Sewage Systems, Inc.	143
Shenandoah Junction Public Sewer, Inc.	162
Springer Run Park, LLC	64
Stanaford Acres Sewage System, Inc.	188
Timberline Four Seasons Utilities, Inc.	742
Vitech Enterprises, Inc.	118
Wastewater Management, Inc.	50
West Virginia Resorts, LLC	68
West Virginia-American Water Company	1,084
Williamsburg Sewer System, Inc.	212
Willow Spring Public Service Corporation	346
Wood County Parks and Recreation Commission	19
	5,782

Source: 2013 Statistical Report, Public Servide Commission of WV

Appendix B

Existing Sewer Systems and Customers - Municipal Sewer Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Albright	99
Alderson	618
Anmoore	372
Ansted	635
Athens	457
Barboursville	1,817
Barrackville	685
Beckley	7,410
Belington	832
Belle	632
Belmont	396
Benwood	589
Bethany	219
Bethlehem	1,113
Beverly	785
Blacksville	104
Bluefield	8,107
Bradshaw	134
Bridgeport	4,589
Buckhannon	3,195
Buffalo	524
Burnsville	210
Cairo	153
Camden-on-Gauley	112
Cameron	439
Capon Bridge	304
Carpendale	381
Cedar Grove	421
Ceredo	820
Chapmanville	851
Charles Town	2,842
Charleston	23,805
Chesapeake	695
Chester	1,748
Clarksburg	7,086
Clay	323
Clearview	253
Davis	419
Delbarton	373
Dunbar	3,585
Durbin	168
East Bank	424

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix B

Existing Sewer Systems and Customers - Municipal Sewer Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Eleanor	958
Elizabeth	445
Elkins	2,957
Fairmont	9,638
Farmington	262
Flemington	172
Follansbee	2,468
Fort Gay	332
Franklin	448
Gary	462
Gilbert	311
Glasgow	331
Glen Dale	1,215
Glenville	763
Grafton	2,416
Grantsville	337
Granville	349
Handley	112
Harman	70
Harrisville	832
Hartford	212
Hillsboro	135
Hinton	1,269
Huntington	22,106
Hurricane	1,933
Junior	208
Kenova	1,371
Kermit	142
Keyser	2,311
Kingwood	1,410
Leon	118
Logan	915
Lumberport	758
Man	411
Mannington	954
Marlinton	604
Marmet	694
Martinsburg	6,064
Mason	504
Masontown	528
Matewan	904
Matoaka	–
McMechen	945

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix B

Existing Sewer Systems and Customers - Municipal Sewer Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Meadow Bridge	270
Middlebourne	432
Milton	1,877
Monongah	571
Montgomery	726
Moorefield	1,196
Morgantown	19,752
Moundsville	4,563
Mount Hope	607
Mullens	754
New Cumberland	477
New Haven	655
New Martinsville	2,605
Newburg	160
Nitro	4,170
North Hills	311
Nutter Fort	848
Oak Hill	3,366
Oceana	1,651
Paden City	1,209
Parkersburg	15,482
Parsons	736
Paw Paw	237
Pax	163
Pennsboro	547
Petersburg	1,235
Philippi	1,228
Piedmont	411
Pine Grove	266
Poca	678
Point Pleasant	2,187
Pratt	237
Princeton	4,213
Ranson	1,568
Ravenswood	1,825
Reedsville	253
Reedy	86
Richwood	923
Ridgeley	318
Ripley	2,255
Romney	996
Ronceverte	807
Rowlesburg	273

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix B

Existing Sewer Systems and Customers - Municipal Sewer Utilities

NAME OF UTILITY	AVG. # CUSTOMERS
Salem	738
Sand Fork	58
Shepherdstown	1,073
Shinnston	1,033
Sistersville	720
Smithers	413
Sophia	824
South Charleston	6,500
Spencer	1,565
St. Albans	6,283
St. Marys	926
Star City	876
Stonewood	916
Summersville	1,629
Terra Alta	815
Thomas	299
Triadelphia	509
Tunnelton	133
Union	329
Vienna	5,463
War	461
Wardensville	338
Wayne	768
Weirton	9,333
Welch	924
Wellsburg	1,481
West Hamlin	403
West Union	575
Weston	2,665
Westover	2,180
Wheeling	12,451
White Sulphur Springs	1,656
Willamson	1,367
Williamstown	1,394
Winfield	1,181
Worthington	308
Total	299,809

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix B

Existing Sewer Systems and Customers - Public Service Districts (Sewer)

NAME OF UTILITY	AVG. # CUSTOMERS
Arbuckle Public Service District	592
Armstrong Public Service District	880
Berkeley County Public Service Sewer	20,260
Big Bend Public Service District	40
Bluewell Public Service District	1,305
Boone County Public Service District	1,901
Boone-Raleigh Public Service District	488
Bradley Public Service District	1,633
Bramwell Public Service District	215
Brooke County Public Service District	950
Buffalo Creek Public Service District	1,256
Canaan Valley Public Service District	5
Canyon Public Service District	621
Center Public Service District	791
Central Boaz Public Service District	487
Central Hampshire Public Service District	751
Claywood Park Public Service District	1,646
Colfax Public Service District	141
Cottageville Public Service District	220
Cowen Public Service District	597
Crab Orchard-MacArthur Public Service	4,189
Craigsville Public Service District	990
Culloden Public Service District	1,221
Deckers Creek Public Service District	1,790
East View Public Service District	532
Elk Valley Public Service District	4,796
Ellenboro-Lamberton Public Service	171
Enlarged Hepzibah Public Service District	836
Flatwoods-Canoe Run Public Service	1,283
Frankfort Public Service District	1,421
Friendly Public Service District (Tyler	290
Glen Rogers Public Service District	109
Greater Harrison County Public Service	2,084
Greater Marion Public Service District	436
Greater Paw Paw Sanitary District	1,360
Greater St. Albans Public Service District	2,221
Green Valley-Glenwood Public Service	3,652
Greenbrier County Public Service District	1,951
Greenbrier Public Service District No. 1	2,675
Hamlin Public Service District	733
Hamrick Public Service District	459
Hancock County Public Service District	1,414

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix B

Existing Sewer Systems and Customers - Public Service Districts (Sewer)

NAME OF UTILITY	AVG. # CUSTOMERS
Harpers Ferry-Bolivar Public Service	757
Hundred-Littleton Public Service District	211
Huttonsville Public Service District	901
Jane Lew Public Service District	637
Jefferson County Public Service District	2,336
Kanawha Falls Public Service District	1,383
Kanawha Public Service District fka	2,862
Kingmill Valley Public Service District	1,365
Lake Floyd Public Service District	153
Leadsville Public Service District	793
Logan County Public Service District	1,287
Lubeck Public Service District	2,275
Malden Public Service District	3,427
Marshall County Sewerage District	753
Mason County Public Service District	256
Meadow Creek Public Service District	105
Midland Public Service District	856
Mineral Wells Public Service District	1,739
Mingo County Public Service District	455
Mountain Top Public Service District	305
Mt. Zion Public Service District	128
New Creek Public Service District	1,043
North Beckley Public Service District	3,586
Northern Jackson County Public Service	121
Northern Wayne County Public Service	2,837
Norton-Harding-Jimtown Public Service	108
Oakvale Road Public Service District	1,742
Ohio County Public Service District	1,977
Page-Kincaid Public Service District	380
Pea Ridge Public Service District	4,762
Pleasant View Public Service District	156
Pocahontas County Public Service	583
Preston County Public Service District	197
Prichard Public Service District	199
Putnam Public Service District	10,019
Red Sulphur Public Service District	1,232
Salt Rock Public Service District	1,563
Scotts Run Public Service District	970
Shady Spring Public Service District	4,171
Sissonville Public Service District	1,669
Southern Jackson County Public Service	745
Spring Valley Public Service District	476
Summit Park Public Service District	515

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix B

Existing Sewer Systems and Customers - Public Service Districts (Sewer)

NAME OF UTILITY	AVG. # CUSTOMERS
Sun Valley Public Service District	736
Tennerton Public Service District	894
Union Public Service District	5,405
Union Williams Public Service District	1,803
Warm Springs Public Service District	1,433
Webster Springs Public Service District	665
West Dunbar Public Service District	763
White Oak Public Service District	1,045
Whitehall Public Service District	1,192
Totals	145,363

Source: 2013 Statistical Report, Public Service Commission of WV

Appendix C
Current Needs - Approved Water Applications Requiring Funding
As of 12/31/14 (By County)

SPONSOR	PROJECT DESCRIPTION	COUNTY	IJDC #	PROJECT COST	COMMITTED FUNDS
Boone County PSD	Morrisvale, Cameo, Right Fork, Coon Run	Boone	2013W-1460	3,900,000.00	300,000.00
Burnsville, Town of	Route 5/Orlando	Braxton	2013W-1405	4,136,300.00	175,000.00
Salt Rock PSD	84 new customers	Cabell	2014W-1492	2,271,000.00	283,000.00
Pleasant Hill PSD	Leaf Bank, Back Fork, Anamoriah	Calhoun	2013W-1394	2,415,000.00	1,483,000.00
Clay County PSD	Pack Fork and Independence Road.	Clay	2011W-1231	2,960,000.00	175,000.00
Clay-Roane PSD	Camp Creek; pump station and water tank	Clay	2013W-1411	919,250.00	
Town of Clay	Blue Knob	Clay	2014W-1506	2,100,000.00	
Kanawha Falls PSD	Kanawha Falls and Boonesborough	Fayette	98W-430	1,469,899.00	210,000.00
Armstrong PSD	Powellton and Deep Water	Fayette	2013W-1418	2,400,000.00	
Gilmer County PSD	Rte 5 Hattie Road, Calhoun-Gilmer Career Center	Gilmer	2014W-1496	600,000.00	50,000.00
Rainelle, Town of	Charmco/Hines; Greenbrier West HS	Greenbrier	2009W-1161	8,199,809.00	
Greenbrier County PSD #2	Crawley, Shawver's Crossing, Sam Black Church	Greenbrier	2014W-1533	10,086,000.00	
Lewisburg, City of	New treatment plant and distribution system work	Greenbrier	2014W-1536	31,678,317.50	
Moorefield, Town of	WTP Upgrade, expansion from 5 MGD to 8 MGD.	Hardy	2013W-1470	25,613,900.00	
Hardy County PSD	Extend service to Dover Hollow and Fort Run	Hardy	2014W-1490	904,500.00	
Lumberport, Town of	Water distribution system improvements.	Harrison	2010W-1171	1,840,772.00	
Lumberport, Town of	Upgrade of distribution system and plant	Harrison	2013W-1456	2,100,000.00	
Northern Jackson Co. PSD	Extension to Sandyville and Upper Trace Fork Road	Jackson	2014W-1524	1,280,000.00	
Lewis County EDA	Line extension to Alum Fork and Laurel Lick	Lewis	2013W-1459	1,275,000.00	684,740.00
Lewis County EDA	Line extension to Churchville, Mare Run, Sassafras Run	Lewis	2014W-1499	3,600,000.00	
Lewis County EDA	Line extension in Roanoke	Lewis	2014W-1542	3,555,000.00	
Branchland-Midkiff PSD	Line extension in Ranger	Lincoln	2011W-1298	2,320,000.00	
Lincoln PSD	Line extension near Hamlin	Lincoln	2013W-1393	5,980,000.00	1,980,000.00
Logan County PSD	Line extension to Frances Creek	Logan	2011W-1282	2,840,000.00	1,330,000.00
Chapmanville, Town of	Improve reliability to existing customers	Logan	2013W-1440	2,529,000.00	45,000.00
Logan County PSD	Line extension to Frye Hollow	Logan	2013W-1458	870,000.00	
Logan County PSD	Line extension-Smokehouse Fork, Big Harts Cr., White Oak	Logan	2014W-1493	4,952,000.00	3,252,000.00
Worthington, Town of	Replace existing lines	Marion	2010W-1189	1,560,000.00	
Farmington, Town of	Water System Acquisition and Upgrade Project	Marion	2011W-1233	1,500,000.00	

Appendix C
Current Needs - Approved Water Applications Requiring Funding
As of 12/31/14 (By County)

SPONSOR	PROJECT DESCRIPTION	COUNTY	IJDC #	PROJECT COST	COMMITTED FUNDS
Rivesville, Town of	Replace the water supply line	Marion	2013W-1428	1,714,600.00	
Marshall County PSD #4	Line extension to Adeline area of Fish Creek.	Marshall	2010W-1179	300,000.00	40,000.00
Cameron, City of	Imp. to water system/Line ext. to Green Valley Rd	Marshall	2013W-1448	1,710,951.24	103,161.24
New Haven PSD	Replace dist. system & Interconnect with Hartford	Mason	2014W-1540	6,294,000.00	
Mason, Town of	Replacement and rehabilitation of existing system	Mason	2014W-1552	2,488,500.00	
Hartford, Town of	Replace dist. system & Interconnect with New Haven	Mason	2014W-1539	3,133,000.00	
McDowell County PSD	Elkhorn Creek, Ashland, Crumpler, Northfork and Keystone	McDowell	2010W-1176	25,000,000.00	23,500,000.00
McDowell County PSD	Line extension - Jolo/Paynesville	McDowell	2010W-1215	2,900,000.00	
McDowell County PSD	Line extension to Roderfield, Big Sandy, and Hampton Roads	McDowell	2011W-1277	10,259,696.00	9,612,000.00
McDowell County PSD	Elkhorn Creek Water Project - Phase II	McDowell	2014W-1513	6,350,000.00	
Lashmeet PSD	Mary Branch & connect to existing Matoaka Water System	Mercer	2011W-1302	3,410,000.00	2,257,250.00
Oakvale Road PSD	Lione extension in Elgood, Phase IV-B	Mercer	2013W-1432	5,128,000.00	50,000.00
Bluewell PSD	Upgrade to provide emergency service to Pocahontas, VA	Mercer	2014W-1546	420,000.00	
Fountain PSD	US Rte 50, CR 9, SR 46, CR 9/2, CR 50/9, CR 16 and CR 18.	Mineral	2010W-1223	10,500,000.00	1,500,000.00
Frankfort PSD	Short Gap improvements	Mineral	2013W-1472	12,562,000.00	
Piedmont, City of	Upgrades to existing water treatment plant	Mineral	2014W-1511	700,000.00	
Keyser, City of	Upgrades to existing distribution system	Mineral	2014W-1519	951,120.00	
Mingo County PSD	Line extension, Beech Creek Phase I	Mingo	2009W-1127	5,456,000.00	
Clay Battelle PSD	Blacksville - line extension and upgrades	Monongalia	2013W-1399	4,714,483.00	
River Road PSD	Booth - upgrade existing system	Monongalia	2013W-1412	3,500,000.00	
Paw Paw, Town of	Line Rehabilitation Project	Morgan	2014W-1523	1,500,000.00	
Nettie-Leivasy PSD	Connect to Canvas/Summersville's plant.	Nicholas	2006W-916ab	3,632,000.00	200,000.00
Fenwick Mountain PSD	Storage tank, rehab/replace booster	Nicholas	2013W-1421	1,459,000.00	
Richwood, City of	Line extension to Hinkle/Mt. Little/Laurel; upgrades at plant	Nicholas	2014W-1529	6,464,500.00	100,000.00
Wheeling, City of	Line replacement	Ohio	2009W-1105	4,197,000.00	
Pendleton County PSD	Line extension	Pendleton	2012W-1316	2,850,000.00	1,350,000.00
Pleasants County PSD	Line extension in Eureka/Hebron/Rock Run	Pleasants	2012W-1340	1,725,000.00	
Marlinton, Town of	Refurbish plant and dist. system	Pocahontas	2014W-1527	4,350,800.00	
Denver Water Association	Serve new elementary school	Preston	2011W-1292	2,192,000.00	
Rowlesburg, Town of	Tunnelton; Water line extension	Preston	2013W-1407	4,500,000.00	
Preston County PSD #2	Several line extensions near Corinth	Preston	2013W-1468	4,515,550.00	3,625,213.00

Appendix C
Current Needs - Approved Water Applications Requiring Funding
As of 12/31/14 (By County)

SPONSOR	PROJECT DESCRIPTION	COUNTY	IJDC #	PROJECT COST	COMMITTED FUNDS
Ellenboro-Lamberton PSD	Union & Victory Ridge water extension project.	Ritchie	2011W-1259	1,641,000.00	853,500.00
Clay-Roane PSD	Line extension near Amma	Roane	2013W-1416	2,078,010.00	
Clay-Roane PSD	Provide service to the Amma Industrial Park along I-79	Roane	2014W-1548	520,000.00	416,000.00
Parsons, City of	Line extension to Moore and Porterwood	Tucker	2009W-1089	1,500,000.00	500,000.00
Davis, Town of	Line replacement	Tucker	2012W-1319	1,284,312.00	
Hamrick PSD	Existing system rehab and line extension to Location Road	Tucker	2014W-1522	6,250,000.00	
Elkins Road PSD	Several line extensions and rehabilition work	Upshur	2014W-1497	6,488,000.00	
Fort Gay, Town of	Line extension to Trace Branch, Webb Branch, River Road	Wayne	2005W-869	1,250,000.00	
Lavalette PSD	Nestlow Phase II water main extension project.	Wayne	2009W-1149	4,588,000.00	3,088,000.00
Crum PSD	Line extension to Quaker/Ferguson/Route 152 areas	Wayne	2011W-1284	4,300,000.00	2,300,000.00
Crum PSD	Line extension to Sidney	Wayne	2012W-1326	4,330,000.00	
Cowen PSD	System improvements near Erbacon	Webster	2012W-1390	7,972,000.00	50,000.00
Cowen PSD	Line extension near Rt. 82	Webster	2014W-1525	3,438,000.00	
Hundred-Littleton PSD	Line ext.-Rush Run, Cottonwood, Burton, and Pogue Run	Wetzel	2013W-1441	1,500,000.00	
Wetzel County PSD #1	System improvements near Reader	Wetzel	2014W-1488	554,500.00	20,000.00
Elizabeth, City of	Line extension to Munday Road	Wirt	2014W-1530	356,740.00	
Mineral Wells PSD	Pond Creek water extension project	Wood	2011W-1251	2,050,000.00	
Lubeck PSD	Line extension near Belleville	Wood	2013W-1462	3,923,000.00	
Claywood Park PSD	System replacement and line extension	Wood	2014W-1535	5,044,000.00	
Eastern Wyoming PSD	Line extension to Barkers Ridge	Wyoming	2012W-1388	6,220,000.00	
Eastern Wyoming PSD	Line extension to Bud/Alpoca	Wyoming	2014W-1532	2,020,000.00	520,000.00
TOTAL				348,041,509.74	60,052,864.24

Appendix D

Current Needs - Approved Sewer Applications Requiring Funding

As of 12/31/14 (By County)

SPONSOR	PROJECT DESCRIPTION	COUNTY	IJDC #	PROJECT COST	COMMITTED FUNDS
Boone County PSD	Upgrade current WWTP and sewer lines	Boone	2013S-1420	4,370,000.00	34,200.00
Wellsburg Sanitary Board	Separation of combined sewers	Brooke	2013S-1449	4,000,000.00	
Huntington Sanitary Board	Pumping station and WWTP upgrade	Cabell	2011S-1310	11,500,000.00	
Culloden PSD	Ext to Holly Brook/Martin Lane/Pine Grove/upgrades	Cabell	2012S-1367	3,790,313.00	
West Union, Town of	Improvements to Wabash area	Doddridge	2014S-1505	2,800,000.00	
Page-Kincaid PSD	Line extension to Robson and Mulberry Branch	Fayette	97S-360c	3,000,000.00	
Oak Hill, City of	Upgrades to Minden Road and Route 61 WWTPs	Fayette	2012S-1359	14,000,000.00	
Smithers, City of	Separation of storm sewer and sanitary sewr	Fayette	2013S-1422	1,377,549.00	
Montgomery, City of	Replacement and relocation pumping station	Fayette	2013S-1478	782,324.00	
Mount Hope, City of	Sewer extension to Rt 16 Bypass Area	Fayette	2014S-1528	1,343,000.00	
Petersburg, City of	To upgrade plant to meet Chesapeake Bay standards	Grant	2012S-1334	9,976,272.00	636,585.00
Alderson, Town of	Upgrades to WWTP for discharge compliance	Greenbrier	2012S-1357	5,494,224.68	1,997,120.20
White Sulphur Springs, City of	Enhanced nutrient removal retro-fit	Greenbrier	2012S-1363	2,889,600.00	1,462,833.60
Greenbrier PSD #1	Line replacement and new package plant	Greenbrier	2012S-1391	5,296,145.00	
Greater Harrison County PSD	Line extension to Enterprise	Harrison	2014S-1510	8,694,000.00	
Cottageville PSD	Line extension	Jackson	2012S-1338	2,700,000.00	200,000.00
Ripley, City of	Collection system rehabilitation - Phase I	Jackson	2012S-1379	13,415,000.00	125,000.00
Charles Town, City of	Phase II - Tuscawilla plant work	Jefferson	2009S-1160	10,603,094.00	
Harper's Ferry - Bolivar PSD	Phase II, Upgrade existing WWTP	Jefferson	2010S-1210	4,461,343.00	
Charles Town, City of	Charles Town WWTP permitted capacity of 1.75 mgd	Jefferson	2012S-1350	15,523,000.00	
Harper's Ferry - Bolivar PSD	Treatment plant Improvements Phase II	Jefferson	2014S-1487	2,011,695.00	
Handley, Town of	Rehabilitate collection system and pump stations	Kanawha	2008S-1044	630,200.00	223,850.00
St. Albans MUC	Upgrades to existing plant	Kanawha	2010S-1212	4,447,980.00	
West Dunbar PSD	Collection system rehab near Institute	Kanawha	2012S-1339	7,500,000.00	
Malden PSD	Major WWTP Rebuild/Upgrade	Kanawha	2012S-1365	20,107,000.00	
Greater St. Albans PSD	Extension in several areas to comply with DEP Order	Kanawha	2012S-1370	16,195,331.00	
Belle, Town of	Replace existing plant	Kanawha	2013S-1398	4,599,500.00	
Nitro Sanitary Board	Sep. of storm/sanitary lines and line extensions	Kanawha	2013S-1427	8,350,000.00	
Elk Valley PSD	Line ext.-Blue Creek/Route 119/Reamer/Young's Bott.	Kanawha	2013S-1429	5,973,509.00	
Kanawha PSD	Line extension to Lens Creek/Upper Witcher Creek	Kanawha	2013S-1476	12,000,000.00	
Charleston Sanitary Board	Porter's Hollow line replacement and improvements	Kanawha	2014S-1521	15,884,030.00	

Appendix D

Current Needs - Approved Sewer Applications Requiring Funding

As of 12/31/14 (By County)

SPONSOR	PROJECT DESCRIPTION	COUNTY	IJDC #	PROJECT COST	COMMITTED FUNDS
Weston Sanitary Board	Line extension to Turnertown/Butcherville	Lewis	2013S-1453	7,140,000.00	
Logan County PSD	Line extension	Logan	2010S-1180	11,740,600.00	10,240,600.00
Logan County PSD	Line extension to Cherry Tree - Phase III – B1	Logan	2010S-1216a	4,566,000.00	1,066,000.00
Logan County PSD	Line extension to Wilkinson - Phase III – B2	Logan	2010S-1216b	4,900,000.00	1,500,000.00
Logan County PSD	Line extension to Monitor/Monaville - Phase III – B3	Logan	2010S-1216c	4,780,000.00	
Chapmanville, Town of	Upgrade plant and rehab lines	Logan	2012S-1352	6,821,850.00	
Barrackville, Town of	Phase II Inprovements to Coal Camp area	Marion	2007S-970b	1,050,000.00	806,035.00
Greater Paw Paw PSD	Rehabilitation work near Fairview	Marion	2013S-1425	2,930,000.00	
Colfax PSD	Line extension and decommissioning plant	Marion	2014S-1520	2,141,500.00	
Benwood, City of	CSO elimination	Marshall	2012S-1325	3,500,000.00	
Mason, Town of	Phase II rehab work to plant	Mason	2013S-1484	3,461,000.00	
Welch, City of	Separation of storm/sanitary sewer	McDowell	2012S-1313	2,013,664.60	
McDowell County PSD	New plant and lines near Coalwood	McDowell	2012S-1366	7,126,408.00	200,000.00
Gary, City of	Plant upgrade	McDowell	2013S-1479	467,000.00	
Welch, City of	Plant upgrade and line extension	McDowell	2014S-1489	5,088,824.00	250,000.00
Gilbert, Town of	Line extension along US Route 52	Mingo	2012S-1318	4,428,000.00	
Scott's Run PSD	Line extension	Monongalia	2011S-1236	8,360,000.00	
Westover, City of	Sunshine Estates subdivision	Monongalia	2011S-1252	2,364,000.00	
Morgantown Utility Board	Sunshine Estates subdivision	Monongalia	2013S-1437	1,640,000.00	977,700.00
Wheeling, City of	Phase II improvements	Ohio	2009S-1100	9,000,000.00	
Franklin, Town of	Upgrades and improvements	Pendleton	2013S-1406	3,040,900.00	1,500,000.00
Durbin, Town of	WWTP/collection upgrade	Pocahontas	2013S-1464	2,623,805.00	
Albright, Town of	Rehabilitation work	Preston	2008S-1036	1,994,450.00	
Tunnelton, Town of	Extend service to Denver area	Preston	2014S-1512	1,790,000.00	1,490,000.00
Winfield, Town of	System upgrades	Putnam	2014S-1491	7,480,000.00	
Beckley Sanitary Board	Phase III	Raleigh	2007S-993c	5,097,720.00	
Crab Orchard-MacArthur PSD	Extend service to Rhodell	Raleigh	2010S-1165	3,510,200.00	
North Beckley PSD	Extend service to Piney View	Raleigh	2011S-1243	4,786,250.00	
Shady Spring PSD	Extend service to Cool Ridge and Flat Top	Raleigh	2013S-1461	7,276,810.00	7,276,810.00
Beverly, Town of	Renovations and upgrades	Randolph	2013S-1482	6,905,390.00	
Cairo, Town of	System upgrades and rehabilitation	Ritchie	2014S-1503	2,503,325.00	

Appendix D

Current Needs - Approved Sewer Applications Requiring Funding

As of 12/31/14 (By County)

SPONSOR	PROJECT DESCRIPTION	COUNTY	IJDC #	PROJECT COST	COMMITTED FUNDS
Pennsboro, Town of	WWTP improvements	Ritchie	2014S-1508	5,172,600.00	
Auburn, Town of	Install individual treatment units for customers	Ritchie	2014S-1526	2,714,725.00	
Spencer, City of	Improvements to the WWTP	Roane	2013S-1438	1,200,000.00	
Meadow Creek PSD	WWTP and collection system to Meadow Creek	Summers	2011S-1303	2,348,112.00	
Grafton, City of	System improvements in downtown area	Taylor	2010S-1172	4,469,820.50	
Northern Wayne County PSD	Docks Creek upgrade; Extend to Pine Hill Subdivision	Wayne	2014S-1534	4,203,588.00	1,000,000.00
Cowen PSD	Upper Glade; Phase II	Webster	2014S-1515	4,500,000.00	
Pine Grove, Town of	Phase II; Sewer improvements	Wetzel	2013S-1431	1,500,000.00	
Central Boaz PSD	WWTP/system upgrades and extension of service	Wood	2013S-1433	2,069,000.00	
Williamstown, Town of	Replacement near WV Route 14 and CSX RR	Wood	2013S-1439	300,000.00	
Oceana, Town of	WWTP upgrade	Wyoming	2013S-1426	5,370,250.00	
Center PSD	WWTP/collection upgrades	Wyoming	2013S-1434	3,664,000.00	30,000.00
				401,754,901.78	31,016,733.80

Appendix E

Infrastructure Funding Agencies in West Virginia

WV Bureau for Public Health (WVBPH)

Programs:	Drinking Water Treatment Revolving Fund (DWTRF)
Contact:	Robert Decrease, 304-356-4301

WV Development Office (WVDO)

Programs:	Appalachian Regional Commission Grant (ARC)
	Small Cities Block Grant (SCBG)
Contact:	Kelly Workman, 304-558-2234

WV Department of Environmental Protection (WVDEP)

Programs:	Abandonded Mine Lands (AML)
	Clean Water State Revolving Fund (CWSRF)
Contact:	CWSRF - Kathy Emery, 304-926-0440
	AML - Jonathan Holbert 304-926-0499

WV Infrastructure and Jobs Development Council (WVIJDC)

Contact:	Jim Ellars, 304-414-6501

US Department of Agriculture - Rural Utilities Service (USDA-RUS)

Contact:	Janna Lowery, 304-284-4886

US Army Corps of Engineers (USACOE)

Programs:	COE 571 and COE 340
Contact:	Sherry Adams, 304-399-5844

WV Water Development Authority (WVWDA)

Contact: Chris Jarrett, 304-414-6500

Appendix F

WVIJDC Needs Assessment

Served/Unserved Structures (by County)

	Water				Sewer			
County	Unserved	Served	% Unserved	% Served	Unserved	Served	% Unserved	% Served
Barbour	4684	9785	32%	68%	11668	2801	81%	19%
Berkeley	25368	31206	45%	55%	34524	22050	61%	39%
Boone	3826	14526	21%	79%	15059	3293	82%	18%
Braxton	10729	5100	68%	32%	13985	1844	88%	12%
Brooke	8255	8083	51%	49%	7313	9025	45%	55%
Cabell	5167	48392	10%	90%	18043	35516	34%	66%
Calhoun	6511	2147	75%	25%	7874	784	91%	9%
Clay	4920	4681	51%	49%	9136	465	95%	5%
Doddridge	7509	1211	86%	14%	8025	695	92%	8%
Fayette	9098	25698	26%	74%	19123	15673	55%	45%
Gilmer	5333	2971	64%	36%	7046	1258	85%	15%
Grant	5636	5981	49%	51%	9542	2075	82%	18%
Greenbrier	23065	10570	69%	31%	21816	11819	65%	35%
Hampshire	20024	4137	83%	17%	21055	3106	87%	13%
Hancock	7793	13652	36%	64%	6107	15338	28%	72%
Hardy	8941	5638	61%	39%	12353	2226	85%	15%
Harrison	7759	36238	18%	82%	18033	25964	41%	59%
Jackson	15209	8683	64%	36%	18064	5828	76%	24%
Jefferson	22644	4720	83%	17%	18924	8440	69%	31%
Kanawha	19899	92669	18%	82%	29325	83243	26%	74%
Lewis	6083	9690	39%	61%	11003	4770	70%	30%
Lincoln	9912	8707	53%	47%	16738	1881	90%	10%
Logan	6683	16837	28%	72%	19168	4352	81%	19%
Marion	23429	13796	63%	37%	14671	22554	39%	61%
Marshall	16616	11881	58%	42%	17854	10643	63%	37%
Mason	9970	13894	42%	58%	18476	5388	77%	23%
McDowell	7344	13460	35%	65%	17461	3343	84%	16%
Mercer	12545	32351	28%	72%	23427	21469	52%	48%
Mineral	12768	6356	67%	33%	9473	9651	50%	50%
Mingo	3849	15585	20%	80%	13468	5966	69%	31%
Monongalia	9618	31929	23%	77%	19037	22510	46%	54%
Monroe	10928	6954	61%	39%	15361	2521	86%	14%
Morgan	14051	2431	85%	15%	13535	2947	82%	18%
Nicholas	9110	15842	37%	63%	19445	5507	78%	22%
Ohio	7036	18903	27%	73%	8482	17457	33%	67%
Pendleton	11200	2901	79%	21%	13538	563	96%	4%
Pleasants	4608	1255	79%	21%	4305	1558	73%	27%
Pocahontas	12309	2046	86%	14%	12827	1528	89%	11%
Preston	16040	10643	60%	40%	21586	5097	81%	19%
Putnam	8594	24765	26%	74%	15648	17711	47%	53%
Raleigh	17166	35574	33%	67%	25359	27381	48%	52%
Randolph	16176	7492	68%	32%	16228	7440	69%	31%
Ritchie	8674	2991	74%	26%	8981	2684	77%	23%
Roane	9979	6584	60%	40%	14544	2019	88%	12%
Summers	10744	5665	65%	35%	14325	2084	87%	13%
Taylor	2964	8811	25%	75%	8643	3132	73%	27%
Tucker	5544	2213	71%	29%	5361	2396	69%	31%
Tyler	8426	2382	78%	22%	7858	2950	73%	27%
Upshur	5839	13956	29%	71%	14426	5369	73%	27%
Wayne	10941	20114	35%	65%	21146	9909	68%	32%
Webster	6717	3380	67%	33%	7898	2199	78%	22%
Wetzel	13157	5267	71%	29%	12700	5724	69%	31%
Wirt	3343	2982	53%	47%	5625	700	89%	11%
Wood	28802	23881	55%	45%	15754	36929	30%	70%
Wyoming	8045	11530	41%	59%	14813	4762	76%	24%

Served/Unserved Structures (by Congressional District)

	Water				Sewer			
Congressional District	Unserved	Served	% Unserved	% Served	Unserved	Served	% Unserved	% Served
1	204651	218229	48%	52%	222439	200441	53%	47%
2	209510	229782	48%	52%	269787	169505	61%	39%
3	177419	301125	37%	63%	313953	164591	66%	34%

Served/Unserved Structures (by Region)

	Water				Sewer			
Region	Unserved	Served	% Unserved	% Served	Unserved	Served	% Unserved	% Served
1	66772	105534	39%	61%	110746	61560	64%	36%
2	46522	123529	27%	73%	107039	63012	63%	37%
3	37239	136641	21%	79%	69168	104712	40%	60%
4	60299	57536	51%	49%	81109	36726	69%	31%
5	85552	50905	63%	37%	83005	53452	61%	39%
6	67319	102628	40%	60%	89995	79952	53%	47%
7	54388	51207	52%	48%	79717	25878	75%	25%
8	58569	25013	70%	30%	65961	17621	79%	21%
9	62063	38357	62%	38%	66983	33437	67%	33%
10	36809	36051	51%	49%	39036	33824	54%	46%
11	16048	21735	42%	58%	13420	24363	36%	64%

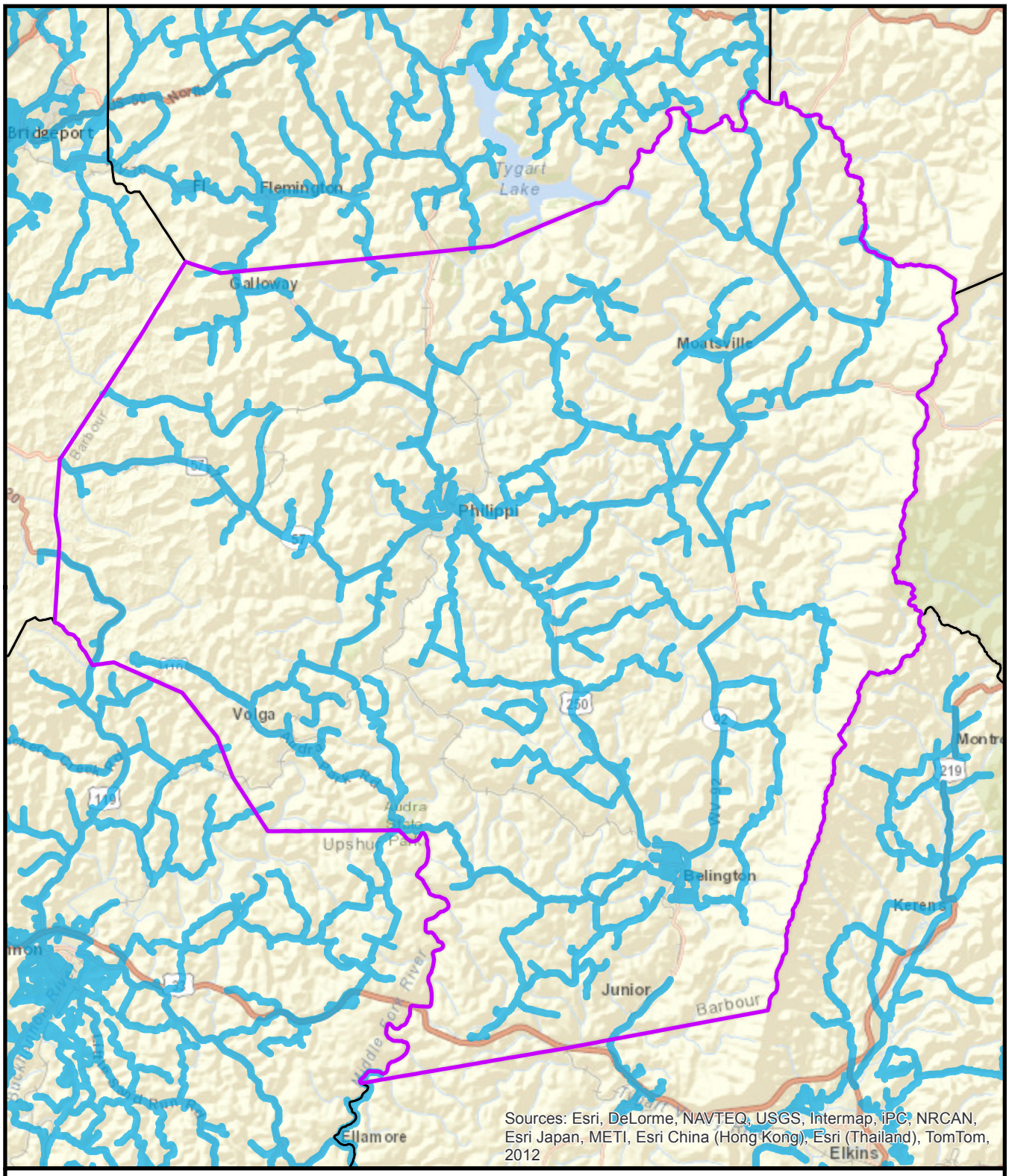
Served/Unserved Structures (by Senatorial Districts)

	Water				Sewer			
Senate District	Unserved	Served	% Unserved	% Served	Unserved	Served	% Unserved	% Served
1	26086	43179	38%	62%	26413	42852	38%	62%
2	70147	37066	65%	35%	77981	29232	73%	27%
3	40919	30882	57%	43%	32396	39405	45%	55%
4	36862	41132	47%	53%	51986	26008	67%	33%
5	7883	55993	12%	88%	21105	42771	33%	67%
6	26445	60851	30%	70%	57009	30287	65%	35%
7	25446	51371	33%	67%	64389	12428	84%	16%
8	8196	55928	13%	87%	21574	42550	34%	66%
9	25669	48848	34%	66%	42128	32389	57%	43%
10	53819	48879	52%	48%	70612	32086	69%	31%
11	64867	49659	57%	43%	90428	24098	79%	21%
12	30351	57196	35%	65%	53524	34023	61%	39%
13	23432	28152	45%	55%	15175	36409	29%	71%
14	46366	45467	50%	50%	69402	22431	76%	24%
15	63428	25478	71%	29%	71980	16926	81%	19%
16	27158	22258	55%	45%	24195	25221	49%	51%
17	14419	46774	24%	76%	15782	45411	26%	74%

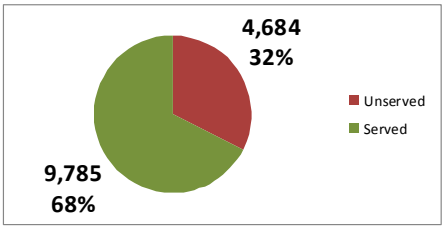
Served/Unserved Structures (by House Districts)

	Water				Sewer			
House District	Unserved	Served	% Unserved	% Served	Unserved	Served	% Unserved	% Served
1	9559	16112	37%	63%	7075	18596	28%	72%
2	6850	6140	53%	47%	7223	5767	56%	44%
3	4797	17653	21%	79%	5694	16756	25%	75%
4	18490	12614	59%	41%	19760	11344	64%	36%
5	13949	5800	71%	29%	14025	5724	71%	29%
6	16386	3591	82%	18%	16334	3643	82%	18%
7	12832	4245	75%	25%	12835	4242	75%	25%
8	5344	6623	45%	55%	5676	6291	47%	53%
9	6488	9305	41%	59%	11677	4116	74%	26%
10	20312	10933	65%	35%	4023	27222	13%	87%
11	11796	8130	59%	41%	17710	2216	89%	11%
12	11213	3857	74%	26%	11499	3571	76%	24%
13	8915	20327	30%	70%	20614	8628	70%	30%
14	6694	8169	45%	55%	11569	3294	78%	22%
15	1028	6864	13%	87%	812	7080	10%	90%
16	4936	26309	16%	84%	10101	21144	32%	68%
17	758	18123	4%	96%	4655	14226	25%	75%
18	1012	9177	10%	90%	5919	4270	58%	42%
19	10829	16825	39%	61%	20815	6839	75%	25%
20	1426	10514	12%	88%	8616	3324	72%	28%
21	8644	7861	52%	48%	13809	2696	84%	16%
22	14453	12200	54%	46%	21417	5236	80%	20%
23	1865	11127	14%	86%	9715	3277	75%	25%
24	6491	17078	28%	72%	19890	3679	84%	16%
25	6406	9782	40%	60%	13514	2674	83%	17%
26	4755	12614	27%	73%	13277	4092	76%	24%
27	10262	30832	25%	75%	19820	21274	48%	52%
28	21071	17842	54%	46%	28414	10499	73%	27%
29	4327	11233	28%	72%	9992	5568	64%	36%
30	7264	3316	69%	31%	457	10123	4%	96%
31	2061	12059	15%	85%	10803	3317	77%	23%
32	10949	32295	25%	75%	23466	19778	54%	46%
33	14450	7863	65%	35%	20756	1557	93%	7%
34	12161	6638	65%	35%	16005	2794	85%	15%
35	8223	28575	22%	78%	3664	33134	10%	90%
36	5162	28916	15%	85%	9640	24438	28%	72%
37	91	8128	1%	99%	13	8206	0%	100%
38	685	9462	7%	93%	2697	7450	27%	73%
39	2498	11169	18%	82%	6926	6741	51%	49%
40	3574	10062	26%	74%	8234	5402	60%	40%
41	7134	10847	40%	60%	15490	2491	86%	14%
42	26274	10685	71%	29%	25279	11680	68%	32%
43	27908	9409	75%	25%	28349	8968	76%	24%
44	10931	9775	53%	47%	15194	5512	73%	27%
45	3751	10658	26%	74%	9821	4588	68%	32%
46	6641	11123	37%	63%	12213	5551	69%	31%
47	6805	10030	40%	60%	13169	3666	78%	22%
48	7892	36839	18%	82%	18765	25966	42%	58%
49	3641	9399	28%	72%	9908	3132	76%	24%
50	23188	13308	64%	36%	13942	22554	38%	62%
51	8249	30695	21%	79%	16434	22510	42%	58%
52	5044	6853	42%	58%	9022	2875	76%	24%
53	14420	5764	71%	29%	16431	3753	81%	19%
54	12250	8233	60%	40%	17602	2881	86%	14%
55	16107	8006	67%	33%	21324	2789	88%	12%
56	8775	3482	72%	28%	4937	7320	40%	60%
57	12394	4855	72%	28%	12908	4341	75%	25%
58	16936	2861	86%	14%	16710	3087	84%	16%
59	11635	3418	77%	23%	13225	1828	88%	12%
60	8489	4648	65%	35%	11571	1566	88%	12%
61	683	7587	8%	92%	628	7642	8%	92%
62	3766	4045	48%	52%	6755	1056	86%	14%
63	2918	4218	41%	59%	3067	4069	43%	57%
64	4018	7297	36%	64%	5276	6039	47%	53%
65	5665	933	86%	14%	2240	4358	34%	66%
66	11341	332	97%	3%	9430	2243	81%	19%
67	5636	3454	62%	38%	7251	1839	80%	20%

2014 IJDC Needs Assessment



Distribution of Service to Structures



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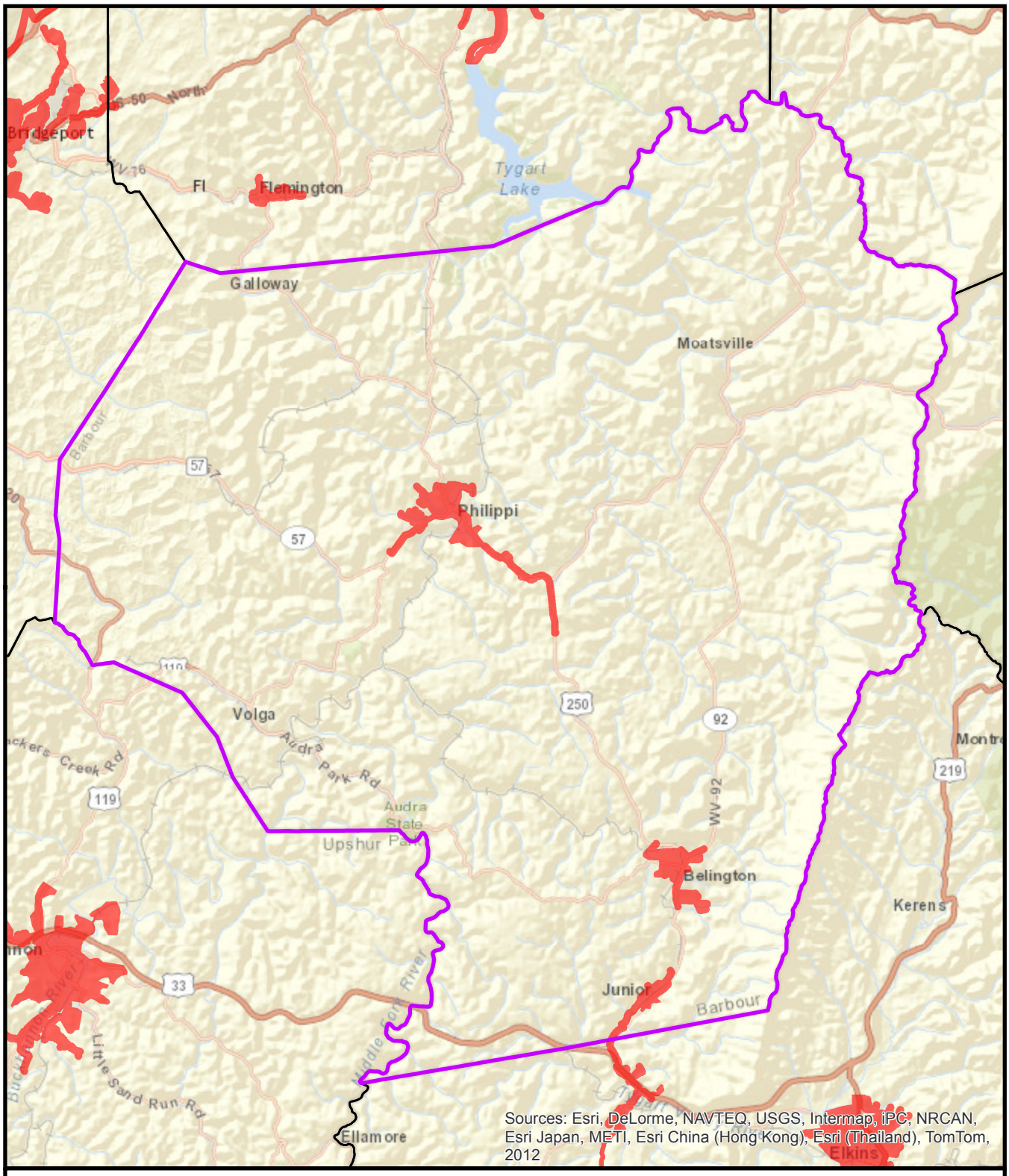
0 1.5 3 6 Miles

Served Area

Water Service Area
Barbour County

West Virginia
Infrastructure & Jobs Development Council



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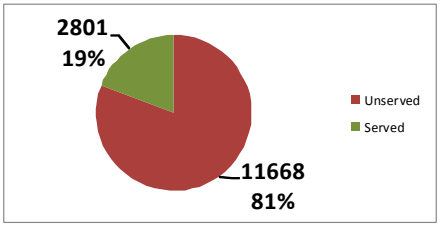

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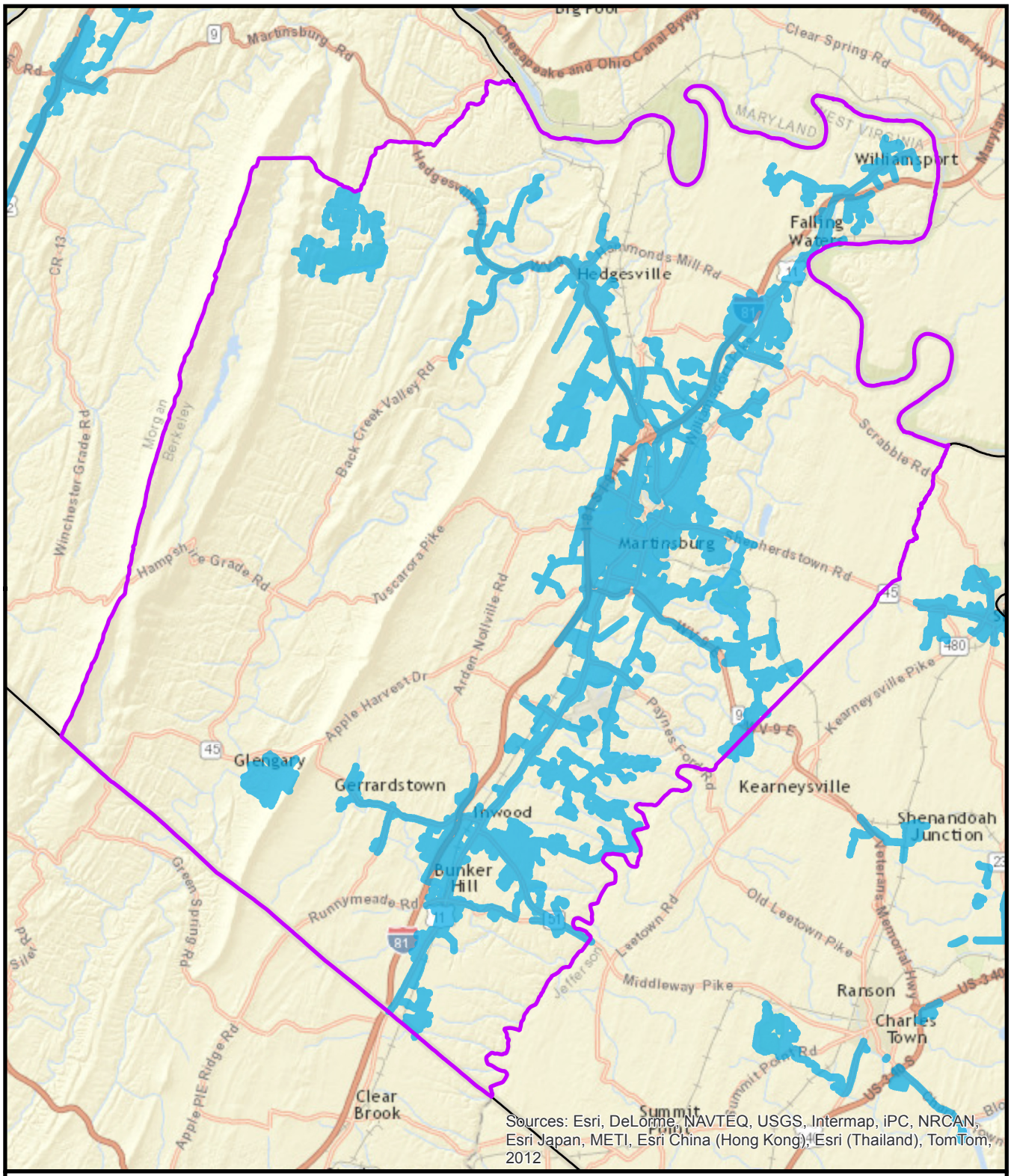
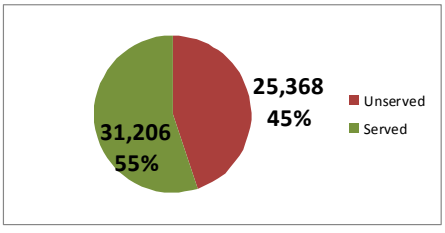
Served Area

Sewer Service Area
Barbour County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



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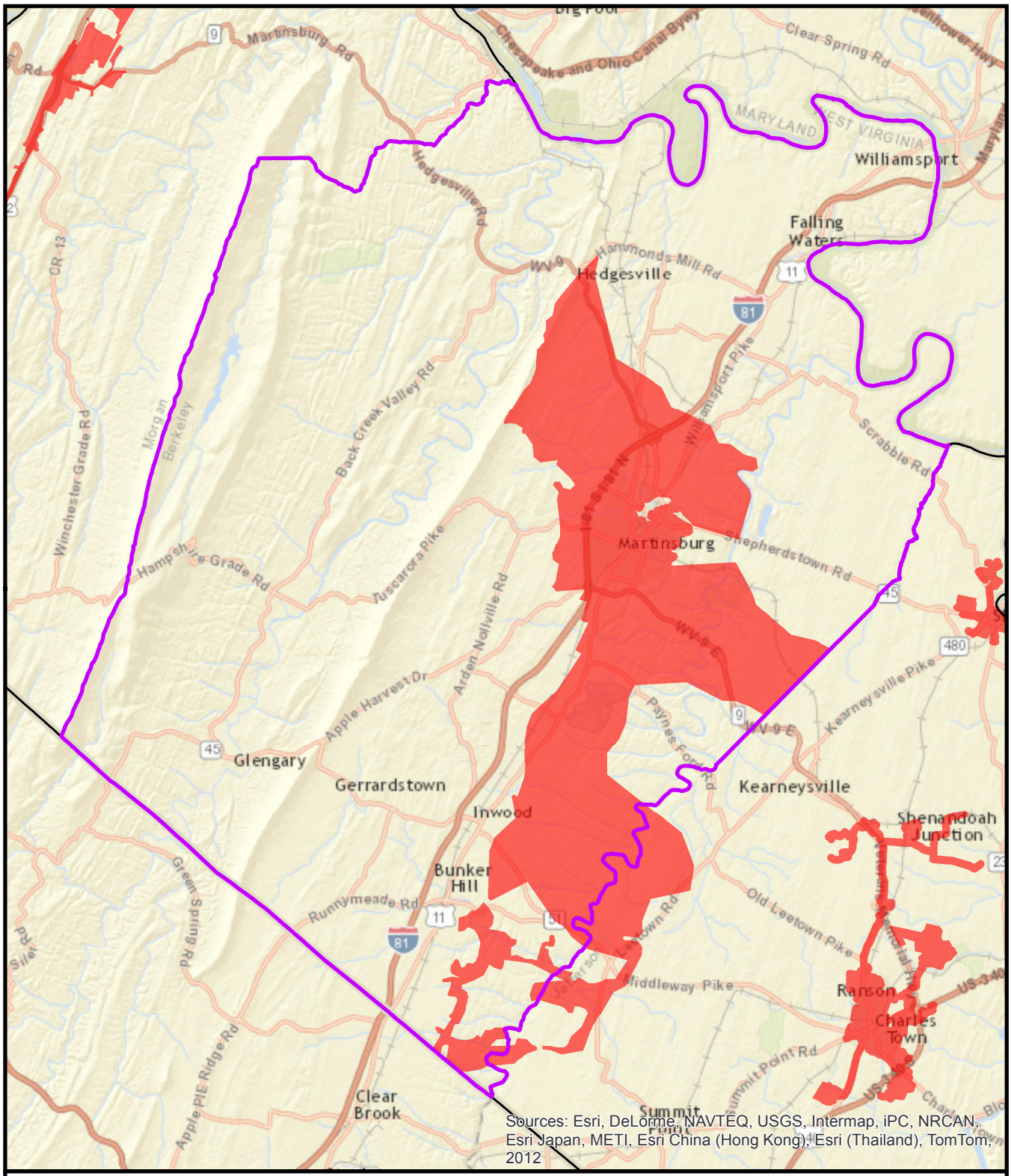
0 1.5 3 6 Miles

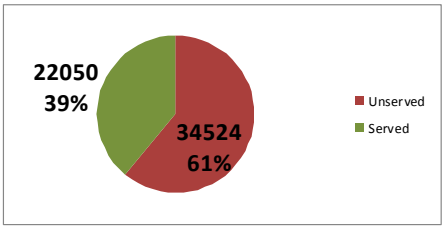
Served Area

Water Service Area
Berkeley County

West Virginia
Infrastructure & Jobs
Development Council



Distribution of Service to Structures



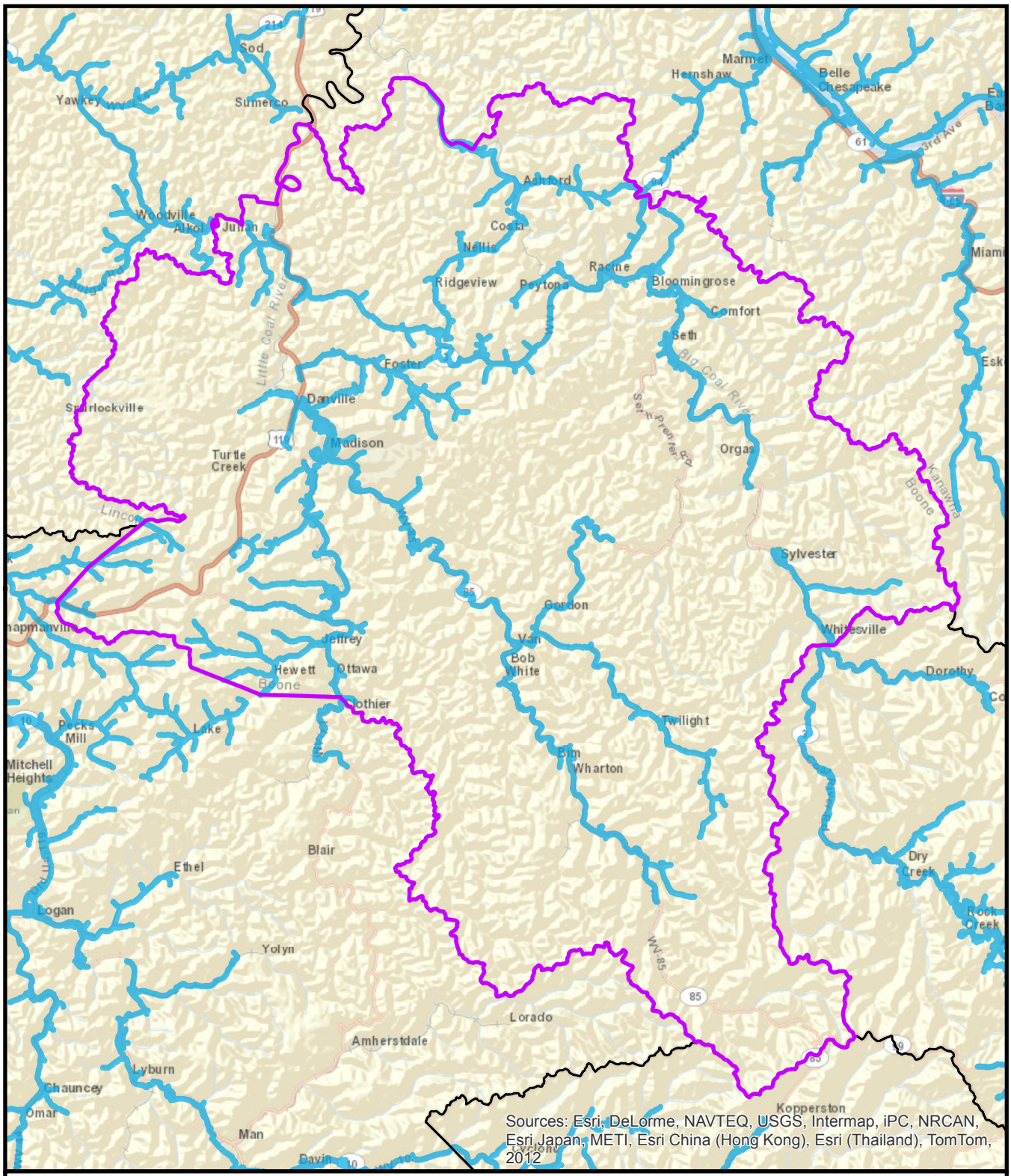
N

0 1.5 3 6 Miles

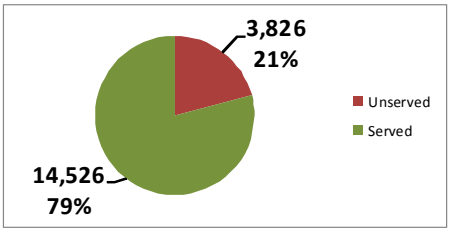
Served Area

Sewer Service Area
Berkeley County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



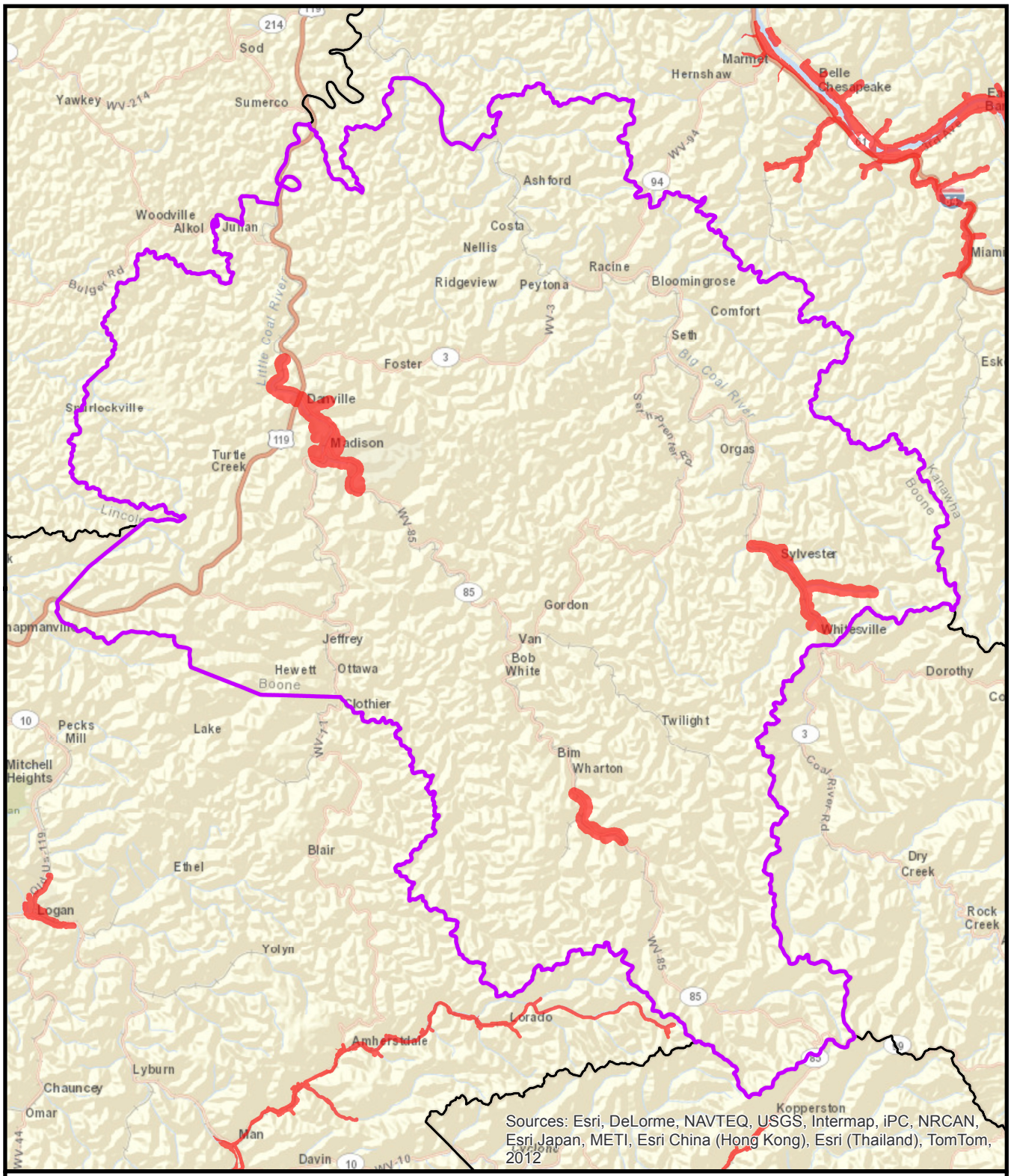
N

0 2 4 8 Miles

Served Area

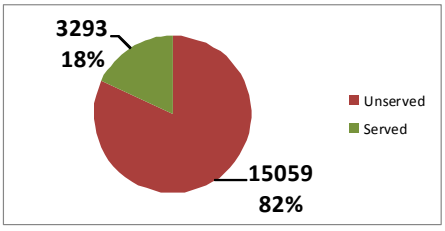
Water Service Area
Boone County

West Virginia
Infrastructure & Jobs Development Council



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Distribution of Service to Structures



N

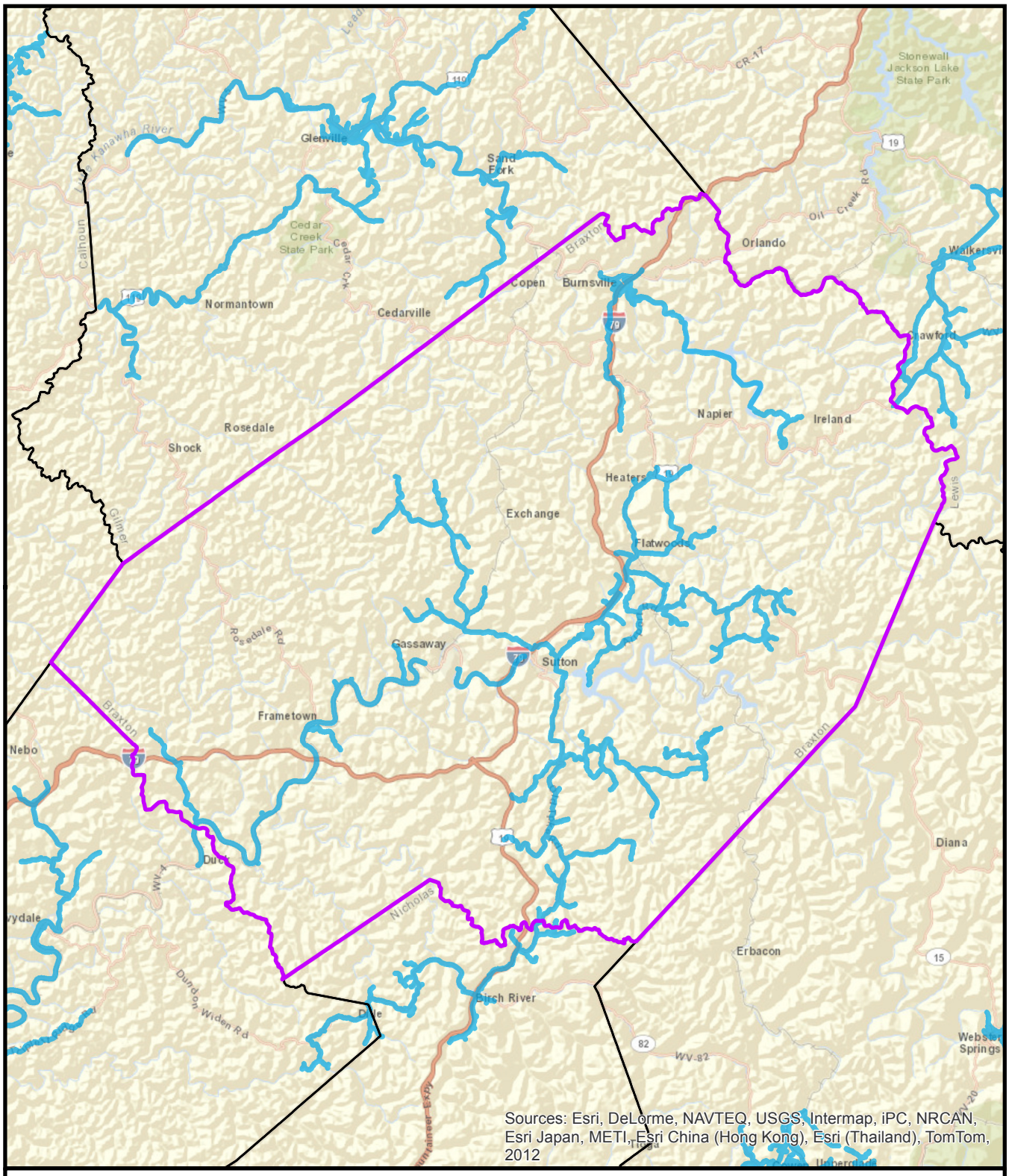
0 2 4 8 Miles

Served Area

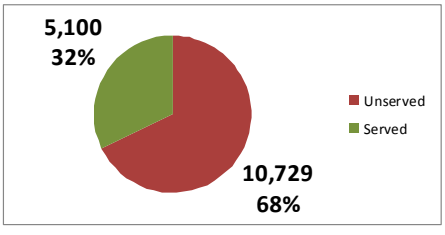
Sewer Service Area
Boone County

West Virginia
Infrastructure & Jobs
Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

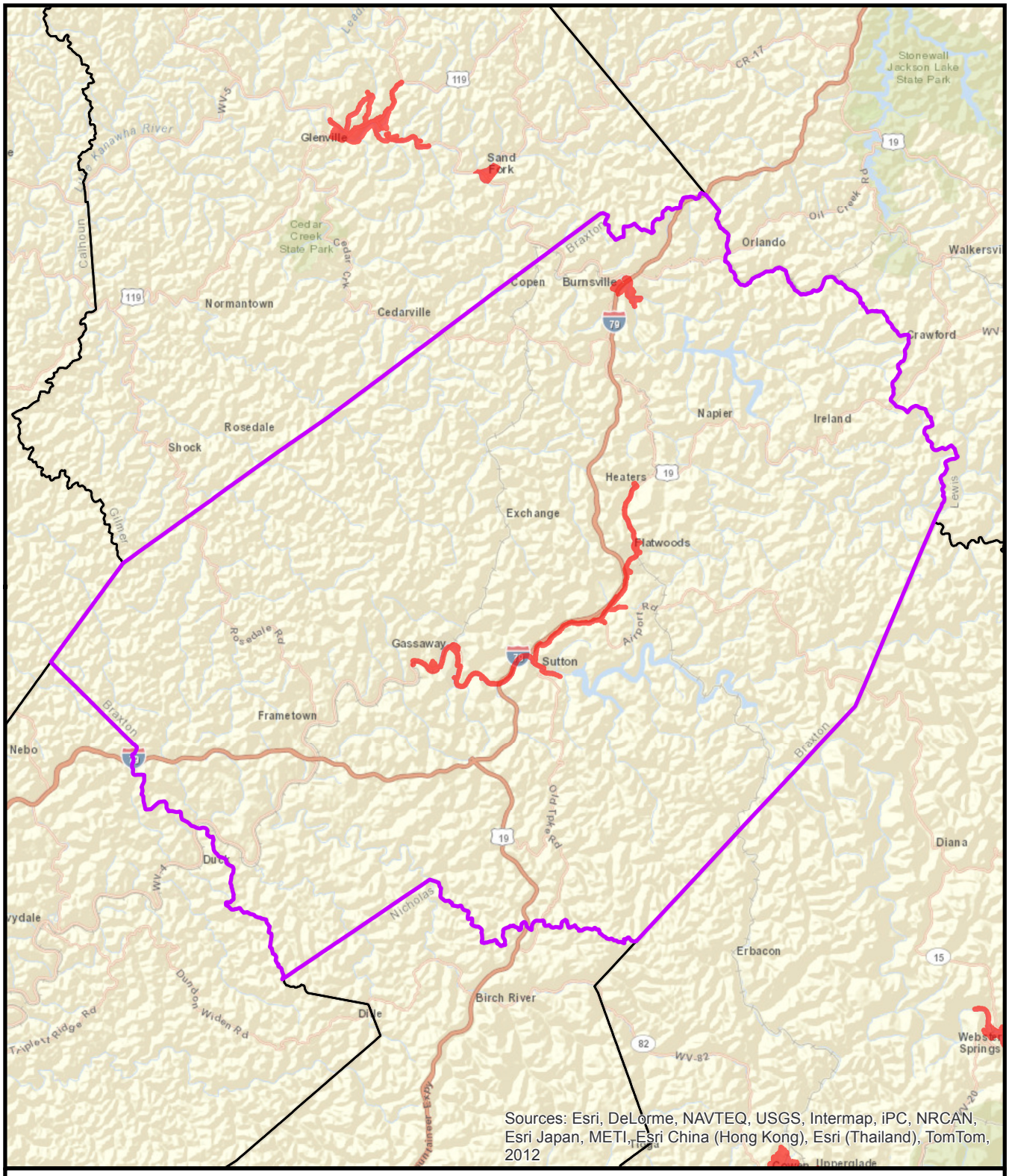
0 2 4 8 Miles

Served Area

Water Service Area
Braxton County

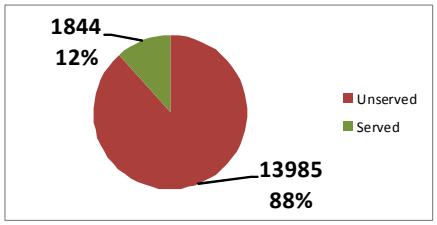
West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Distribution of Service to Structures



N

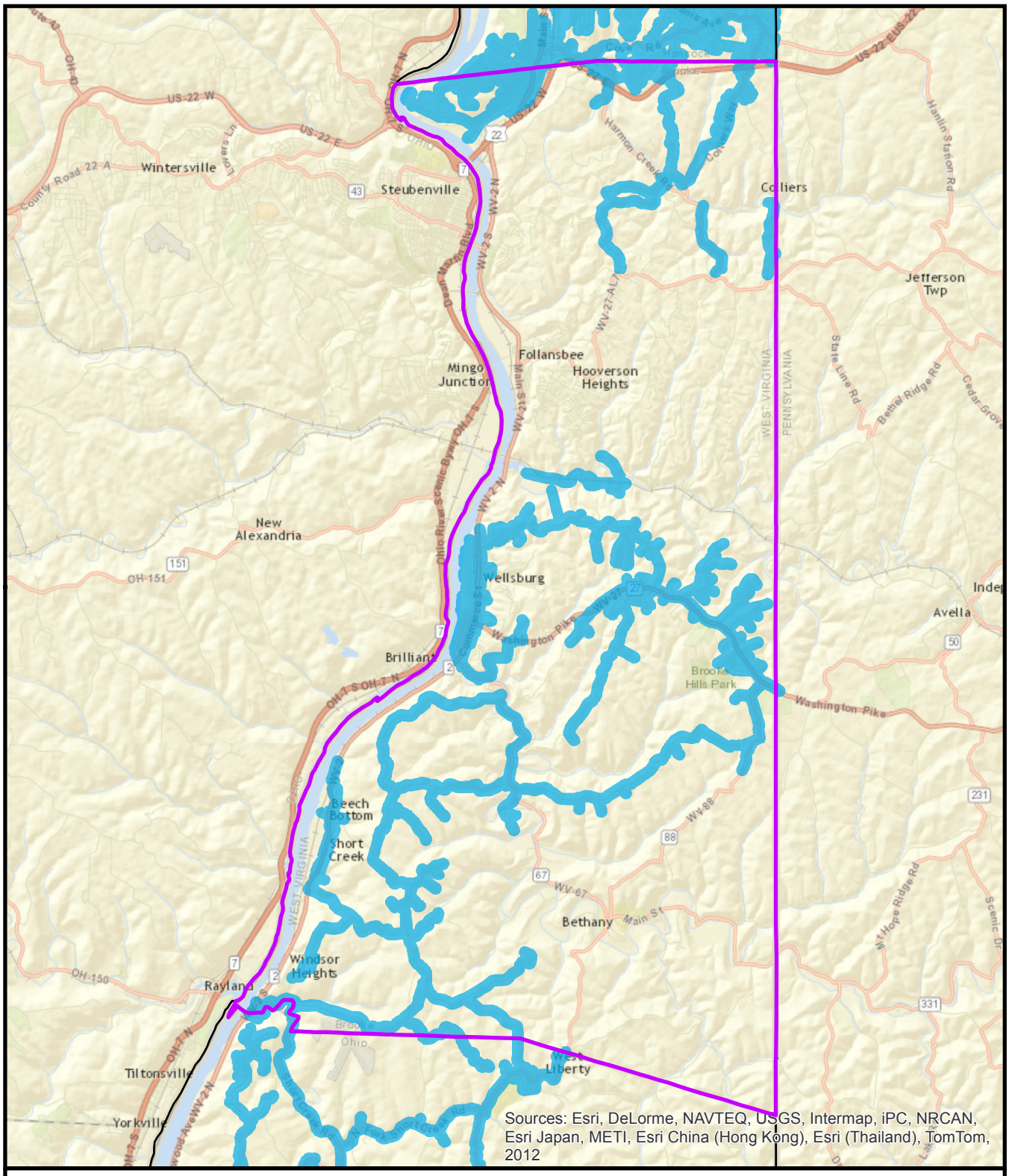
0 2 4 8 Miles

Served Area

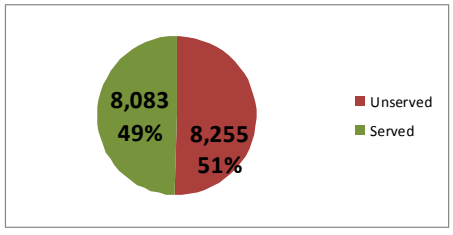
Sewer Service Area
Braxton County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

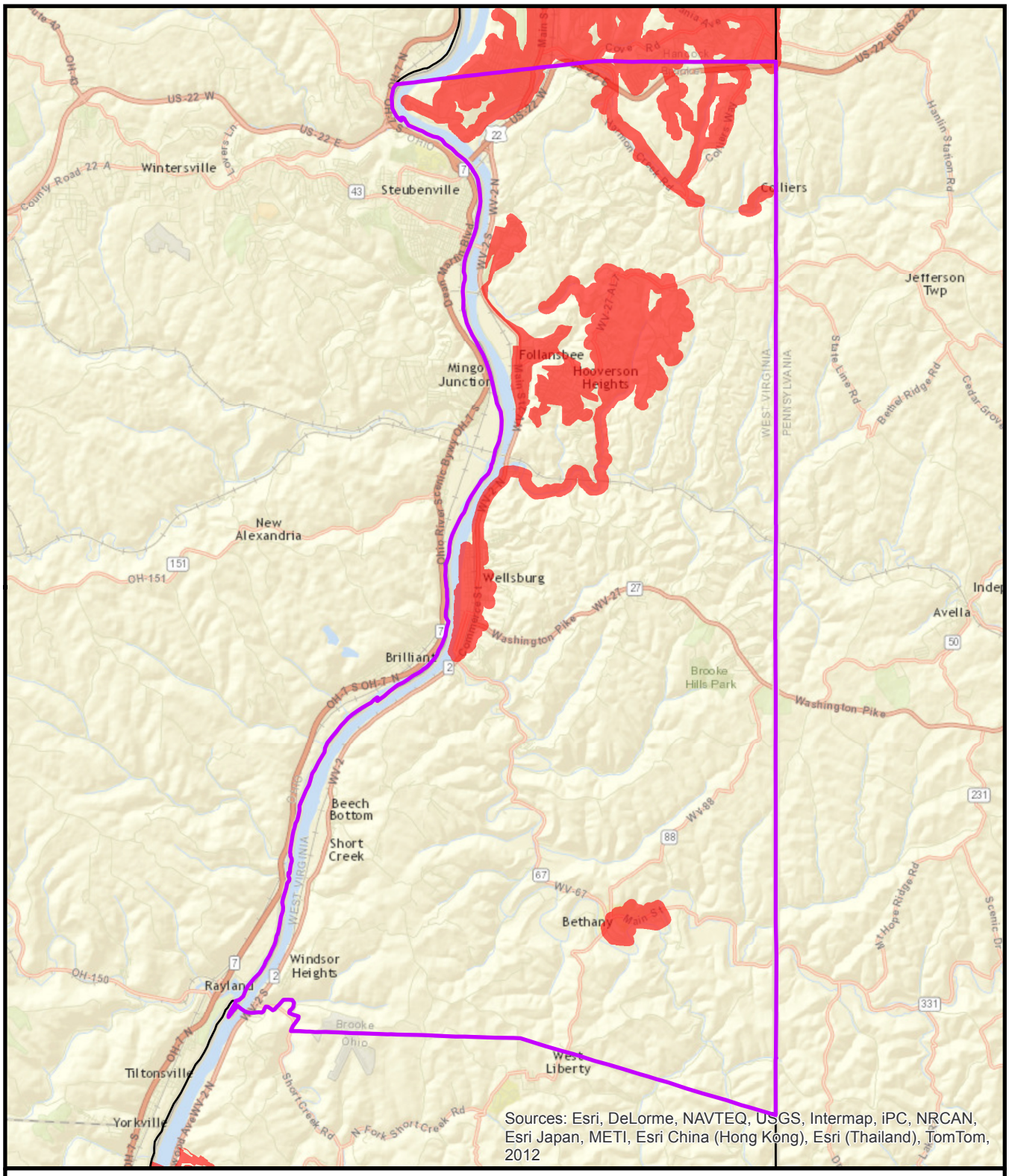
0 1 2 4 Miles

Served Area

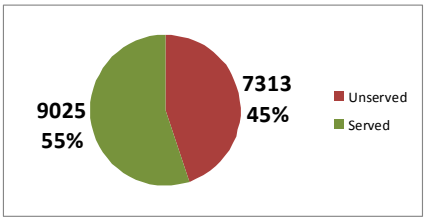
Water Service Area
Brooke County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



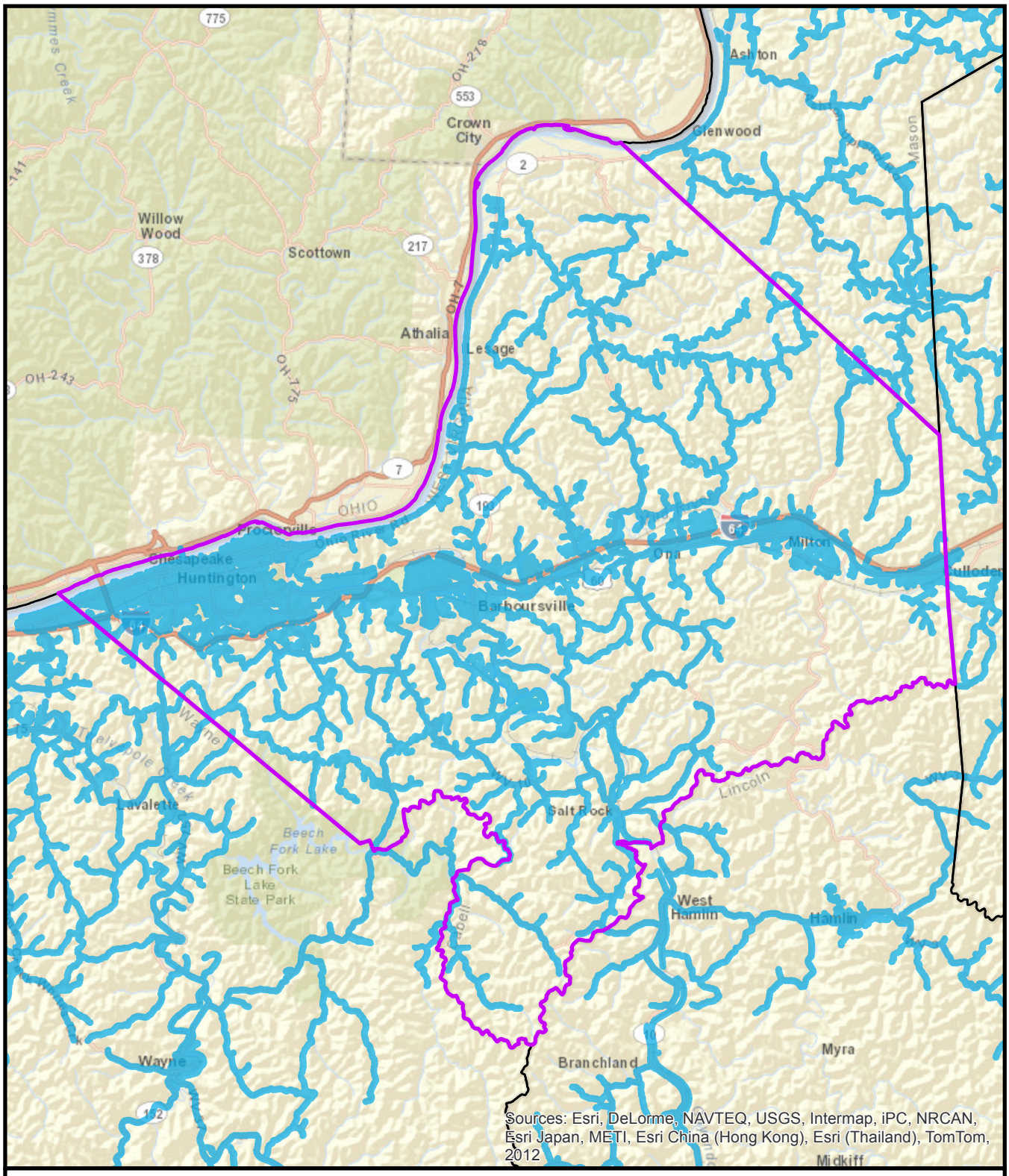
N

0 1 2 4 Miles

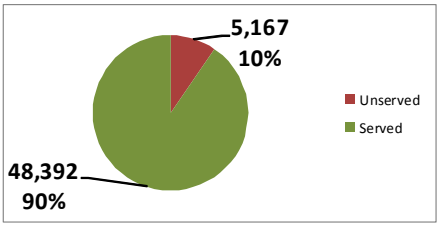
Served Area

Sewer Service Area
Brooke County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



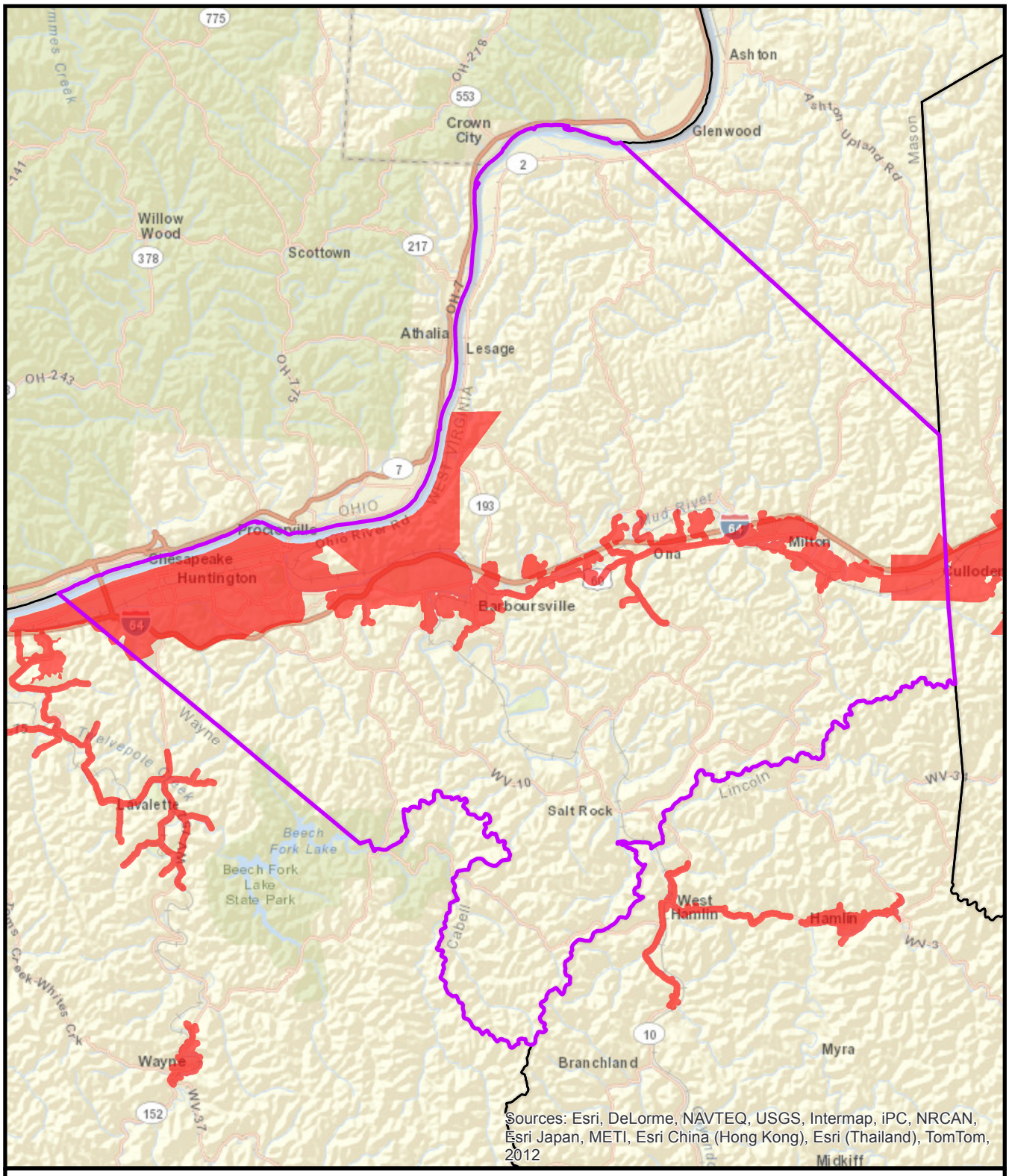
N

0 1.75 3.5 7 Miles

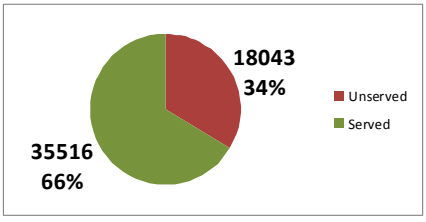
Served Area

Water Service Area
Cabell County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

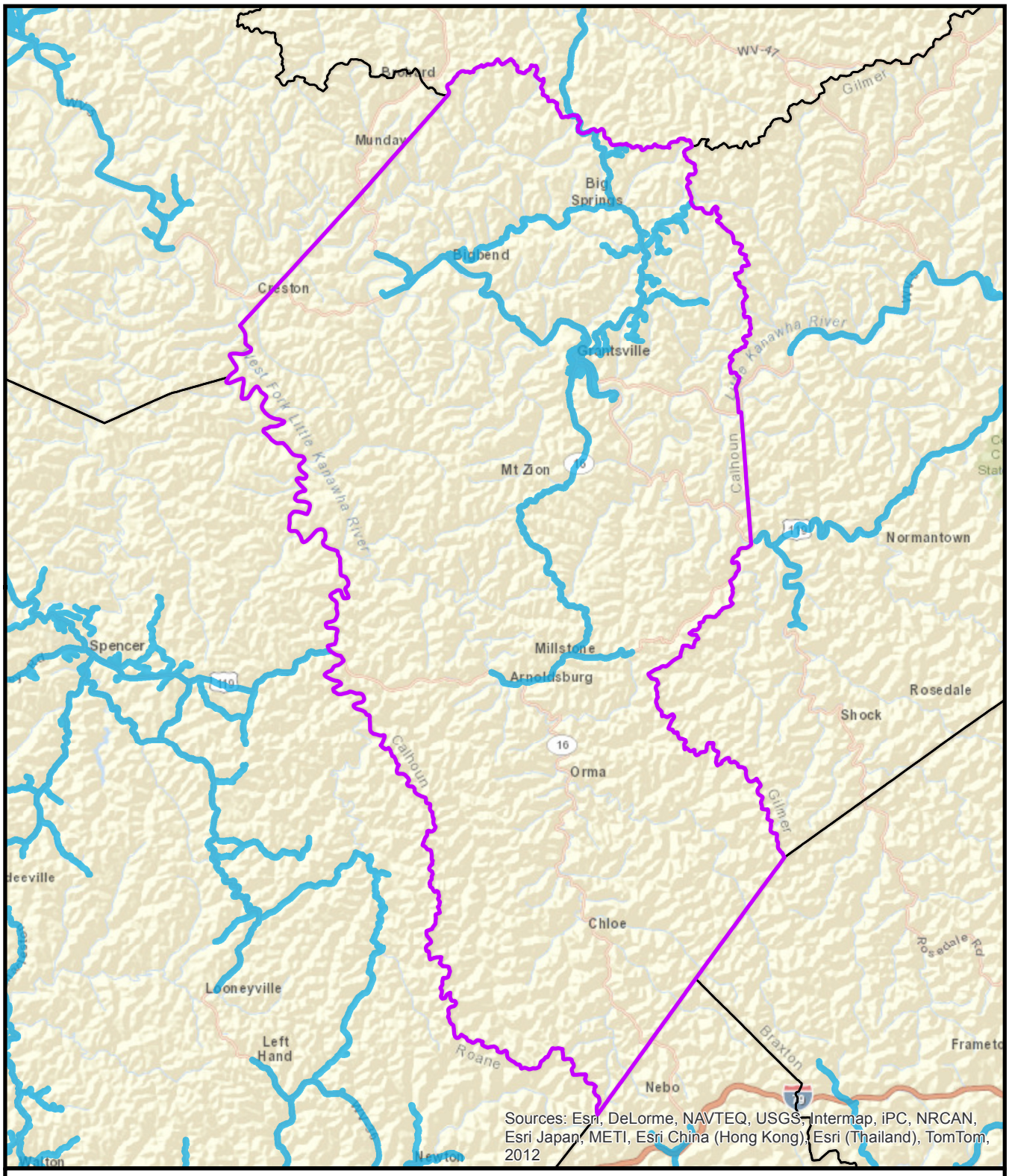
0 1.75 3.5 7 Miles

Served Area

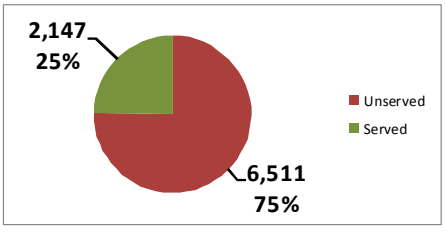
Sewer Service Area
Cabell County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

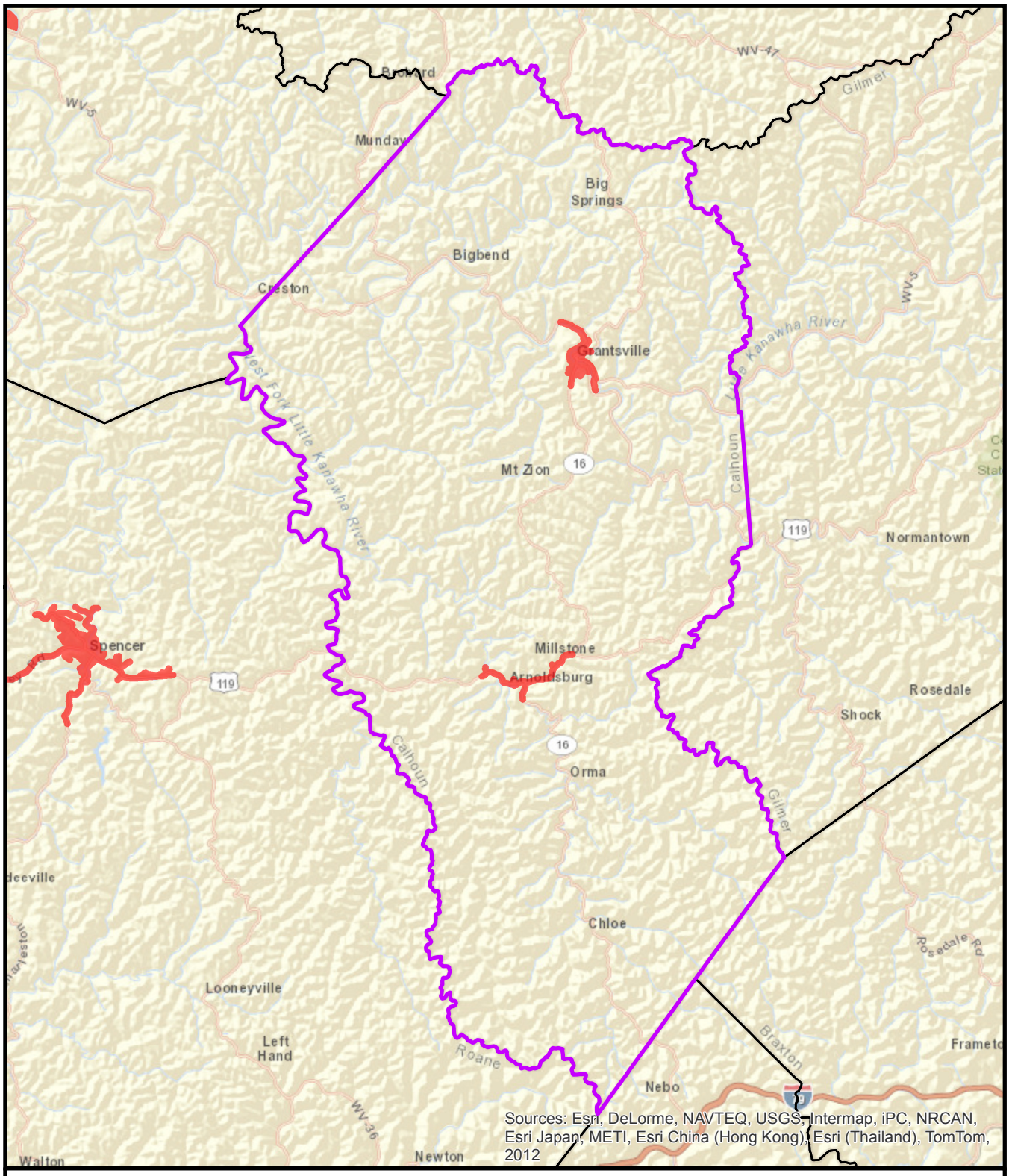
0 1.75 3.5 7 Miles

Served Area

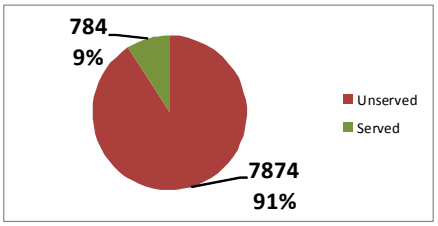
Water Service Area
Calhoun County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

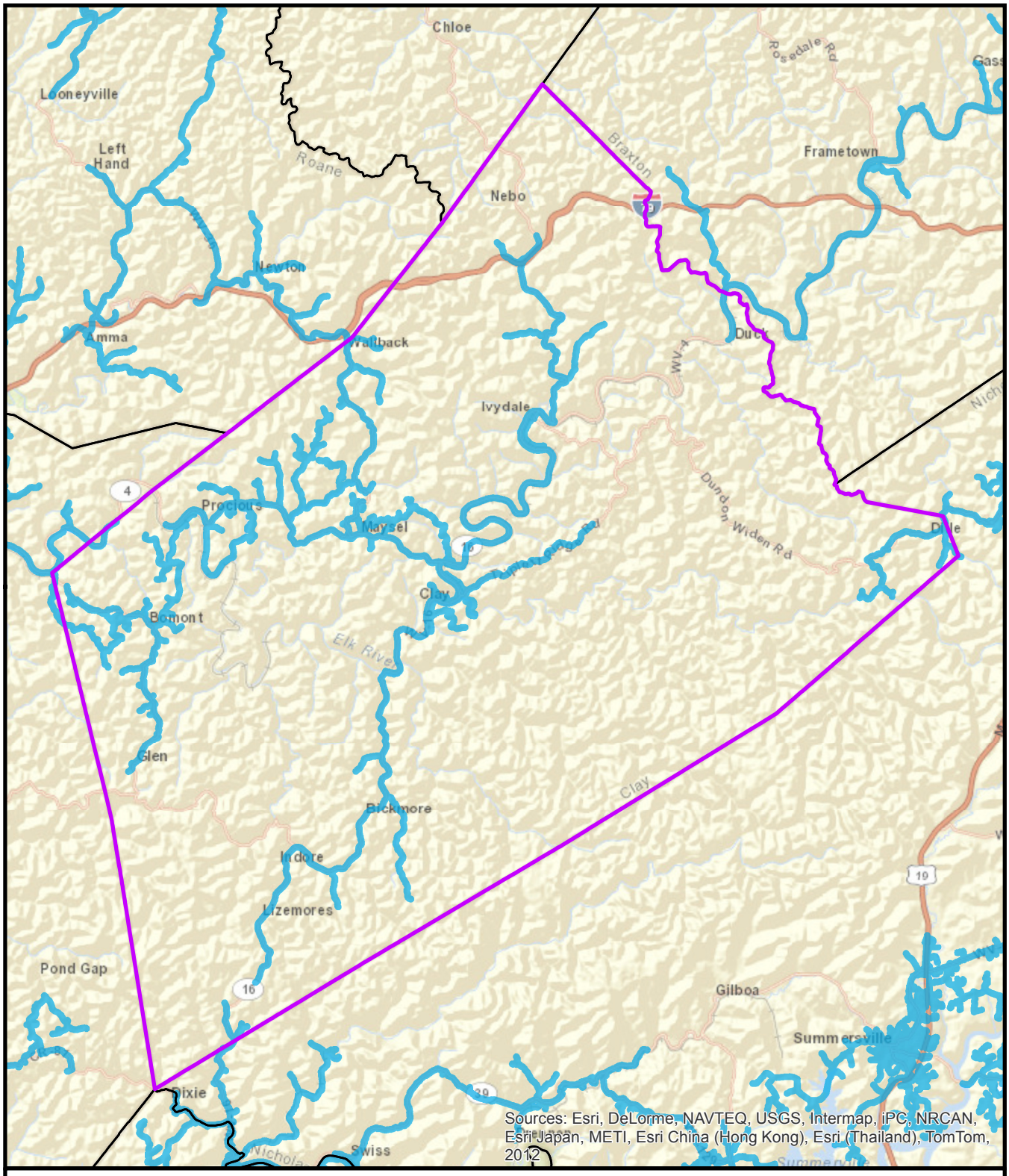
0 1.75 3.5 7 Miles

Served Area

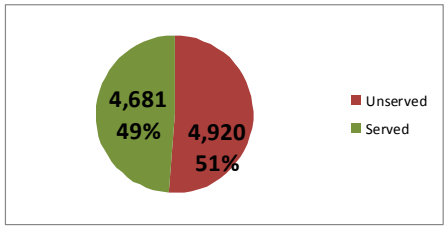
Sewer Service Area
Calhoun County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



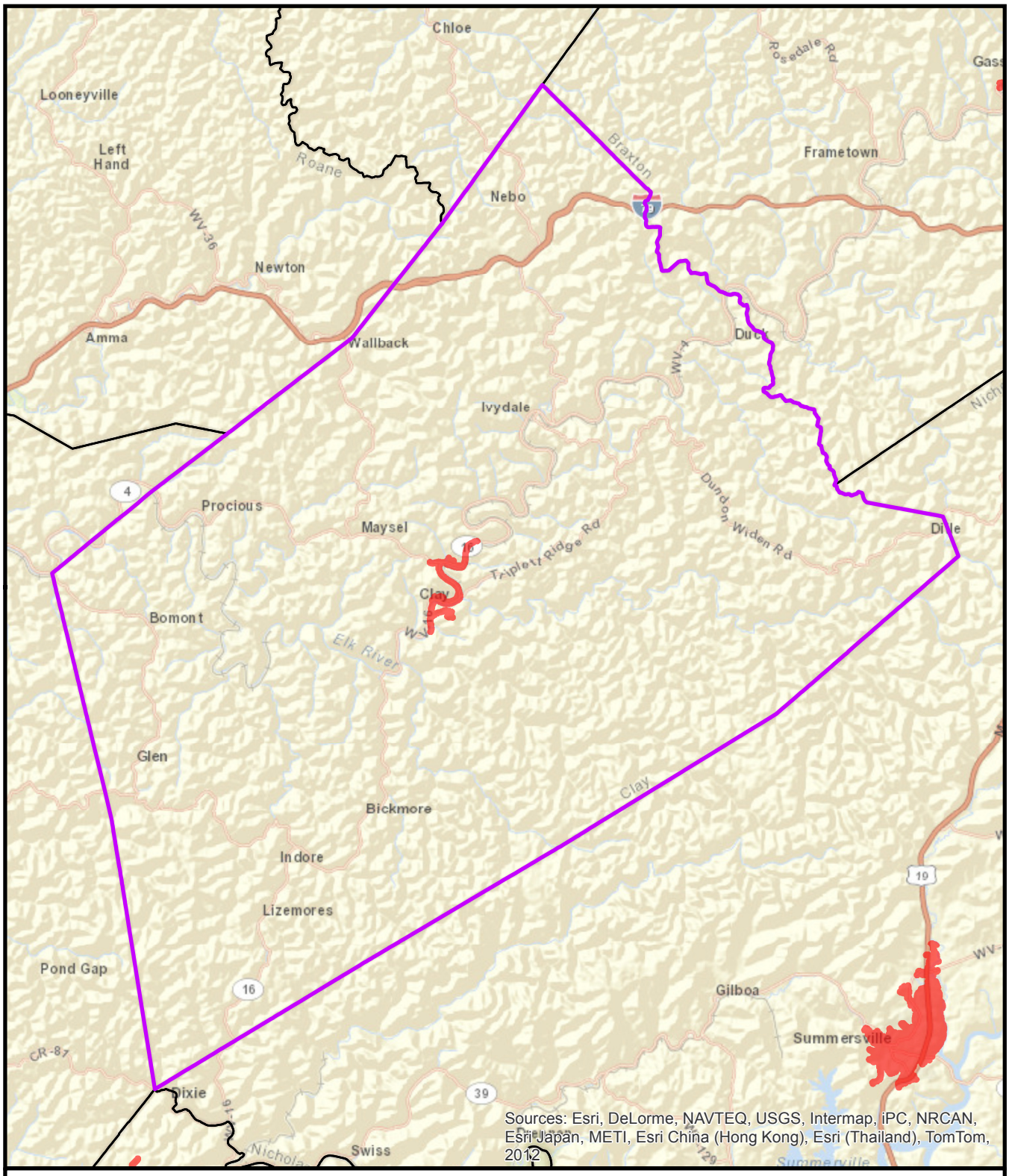
N

0 1.75 3.5 7 Miles

Served Area

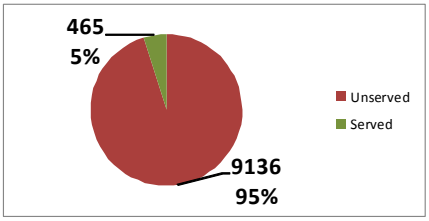
Water Service Area
Clay County

West Virginia
Infrastructure & Jobs Development Council



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Distribution of Service to Structures



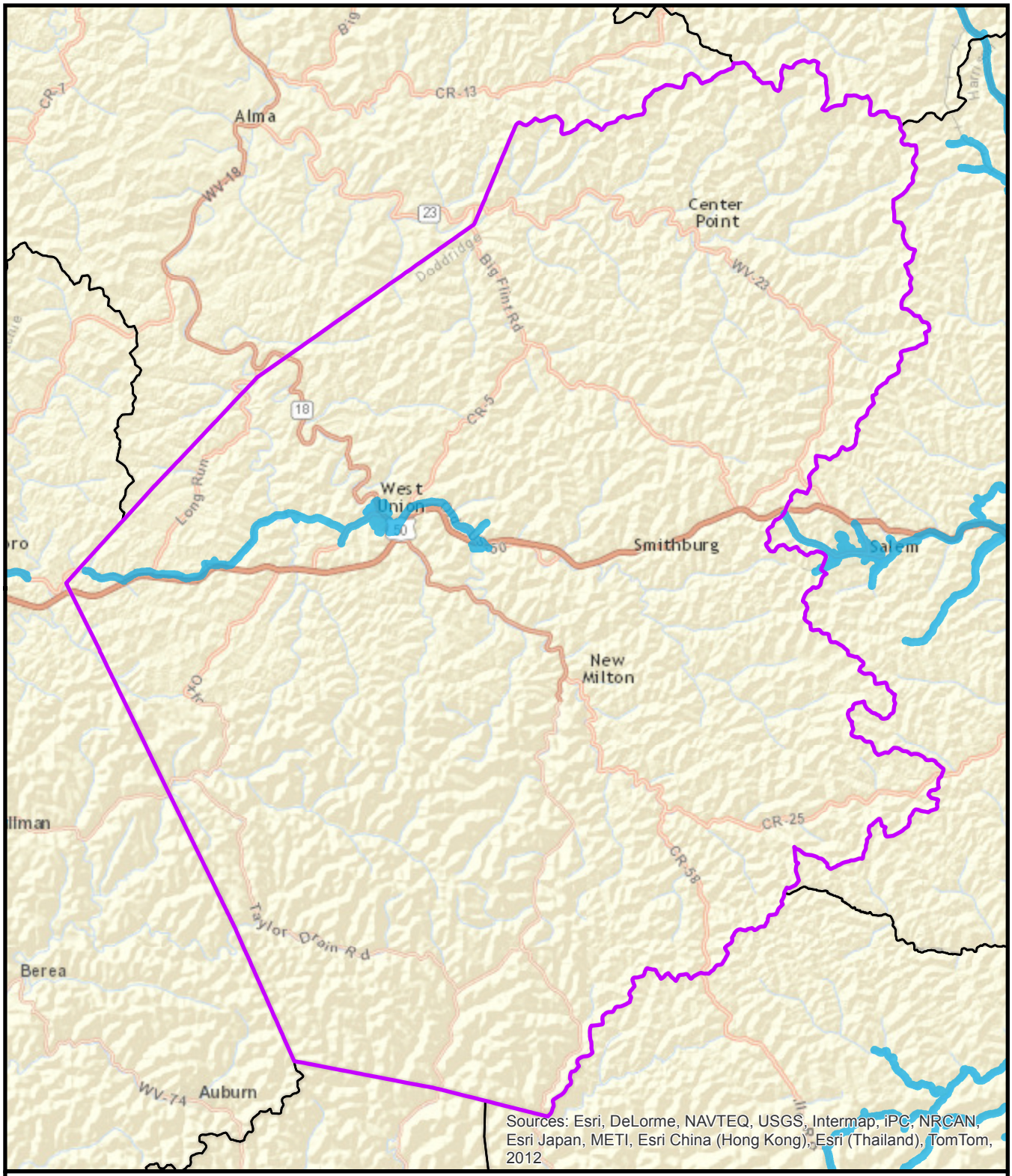
N

0 1.75 3.5 7 Miles

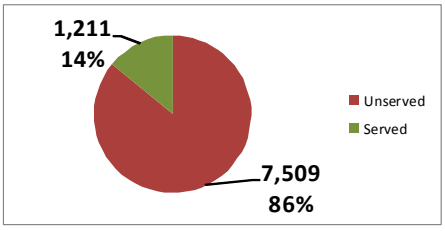
Served Area

Sewer Service Area
Clay County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



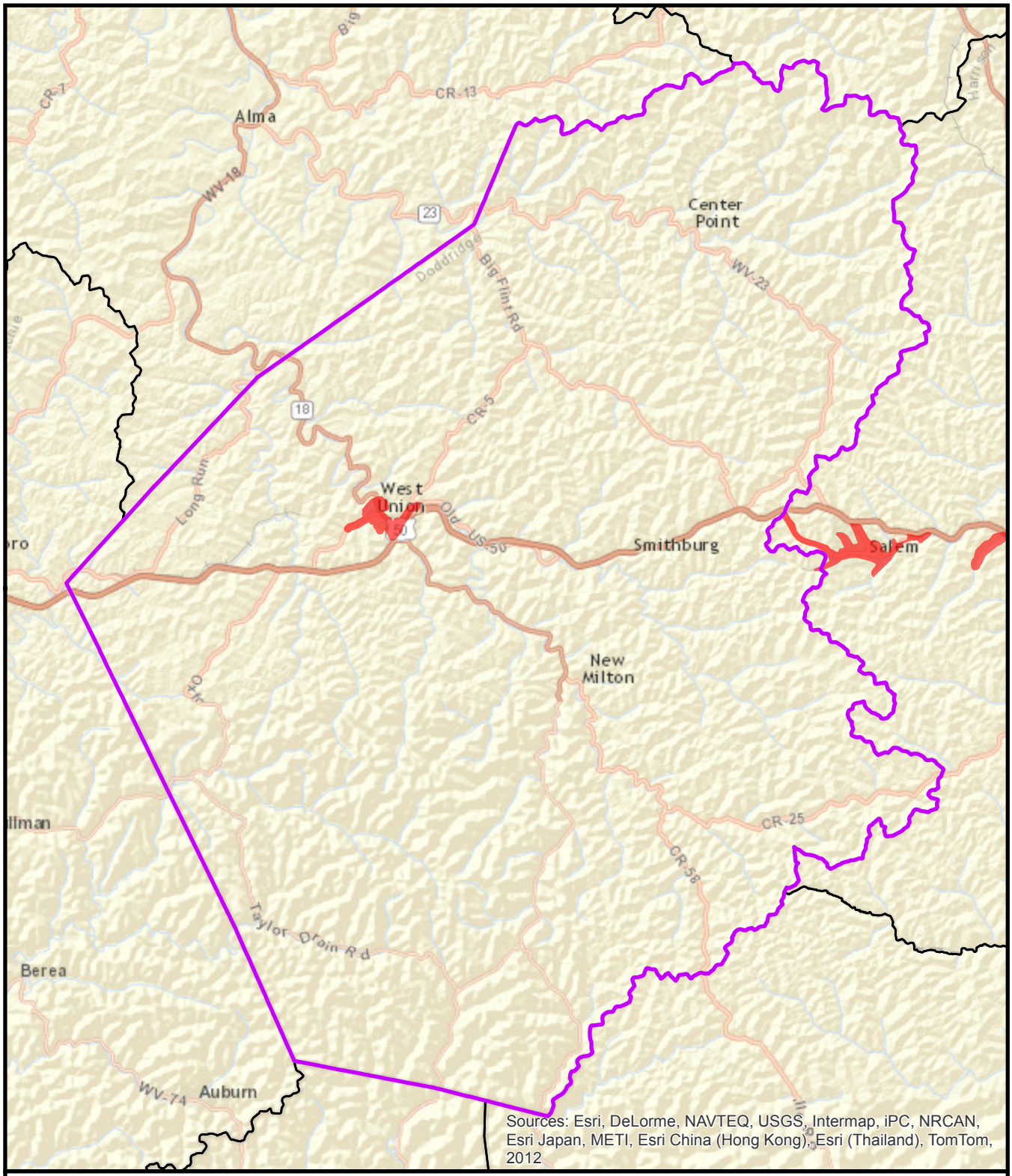
N

0 1.5 3 6 Miles

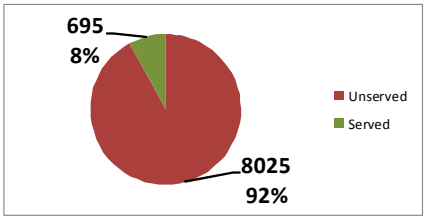
Served Area

Water Service Area
Doddridge County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



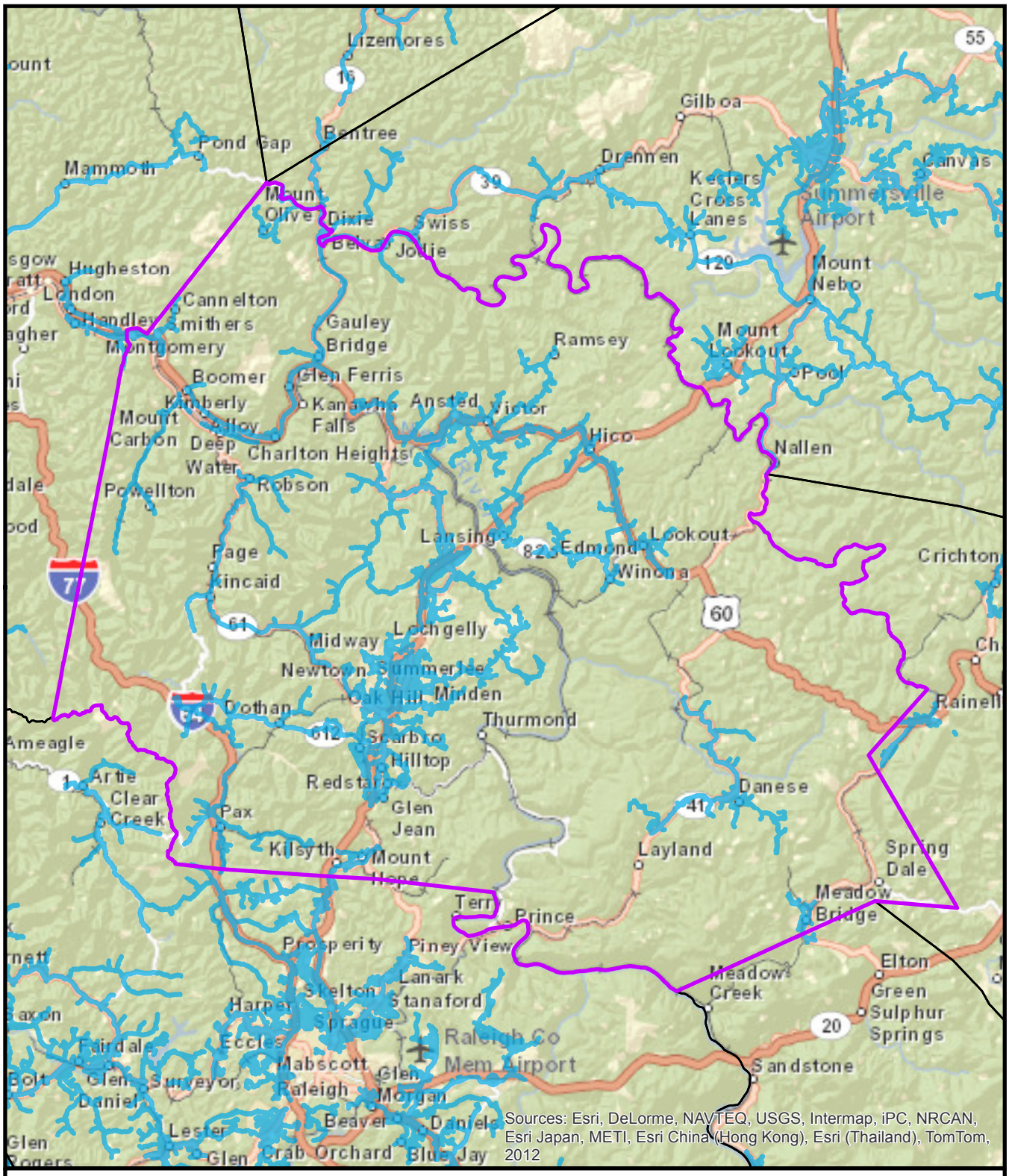
N

0 1.5 3 6 Miles

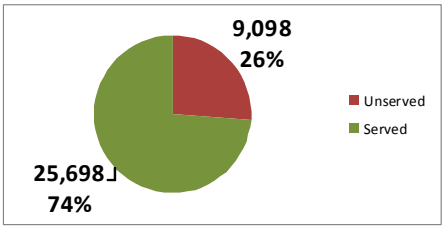
Served Area

Sewer Service Area
Doddridge County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



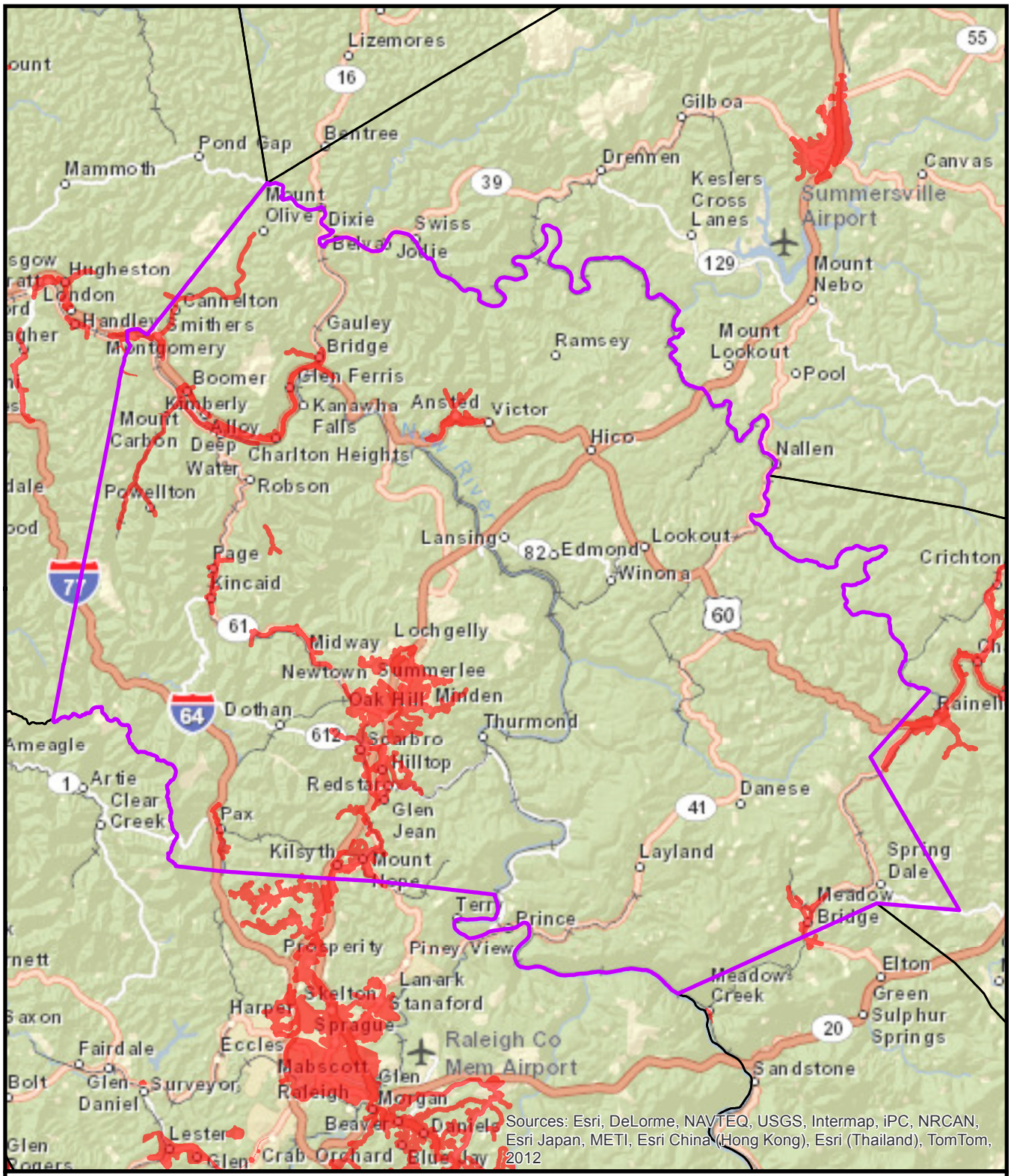
N

0 2.25 4.5 9 Miles

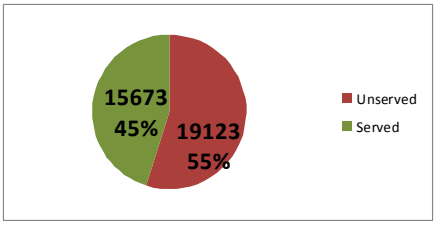
Served Area

Water Service Area
Fayette County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

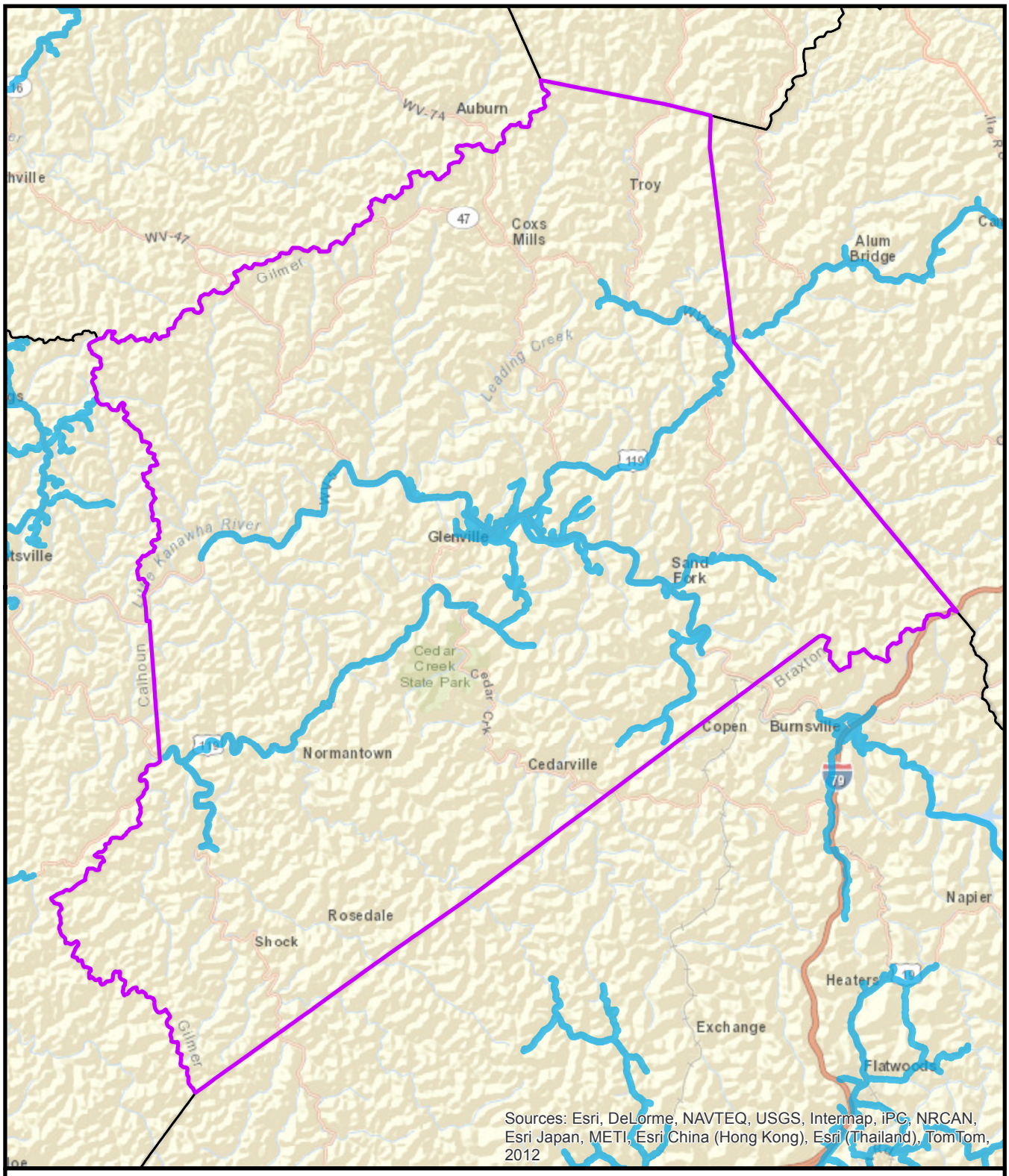
0 2.25 4.5 9 Miles

Served Area

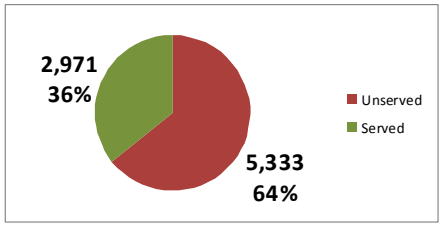
Sewer Service Area
Fayette County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

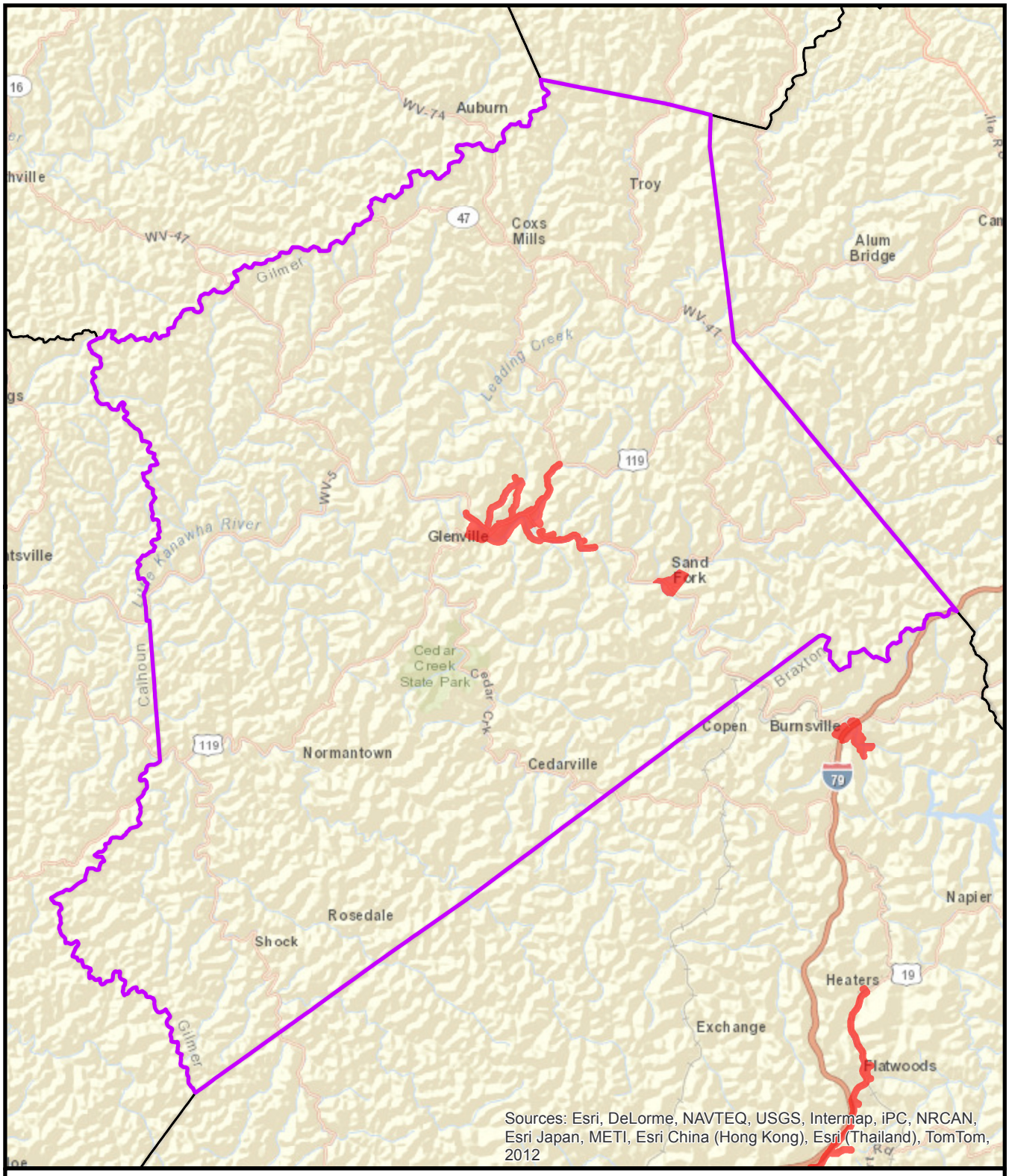
0 1.5 3 6 Miles

Served Area

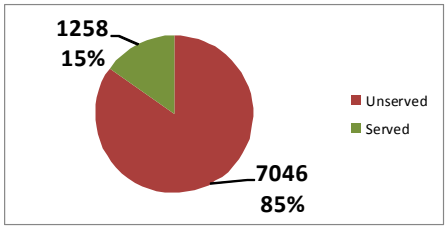
Water Service Area
Gilmer County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



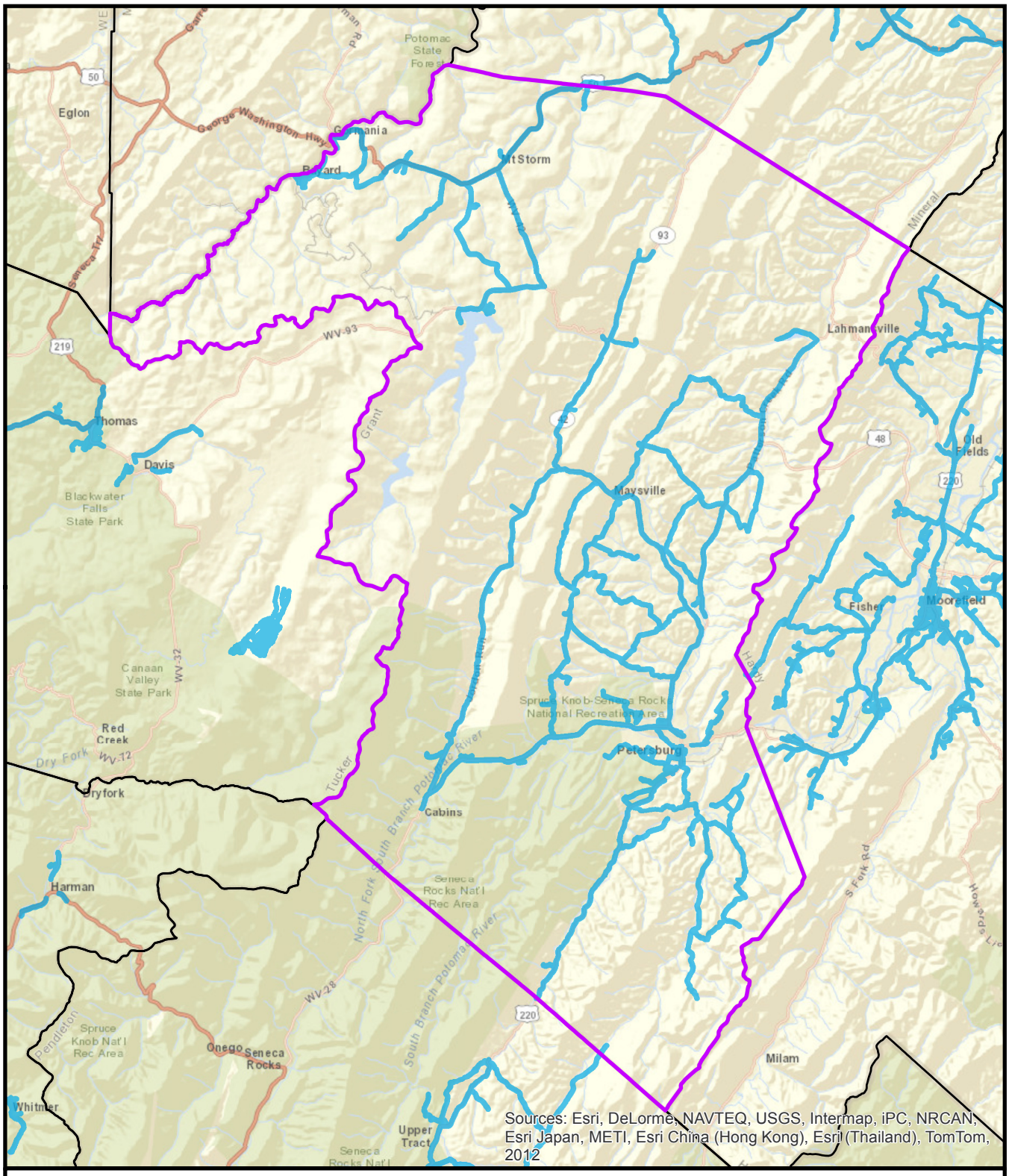
N

0 1.5 3 6 Miles

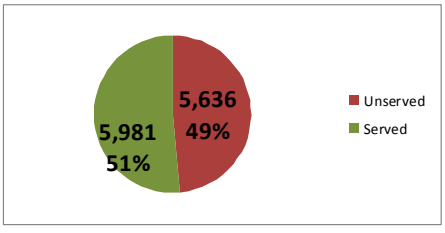
Served Area

Sewer Service Area
Gilmer County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

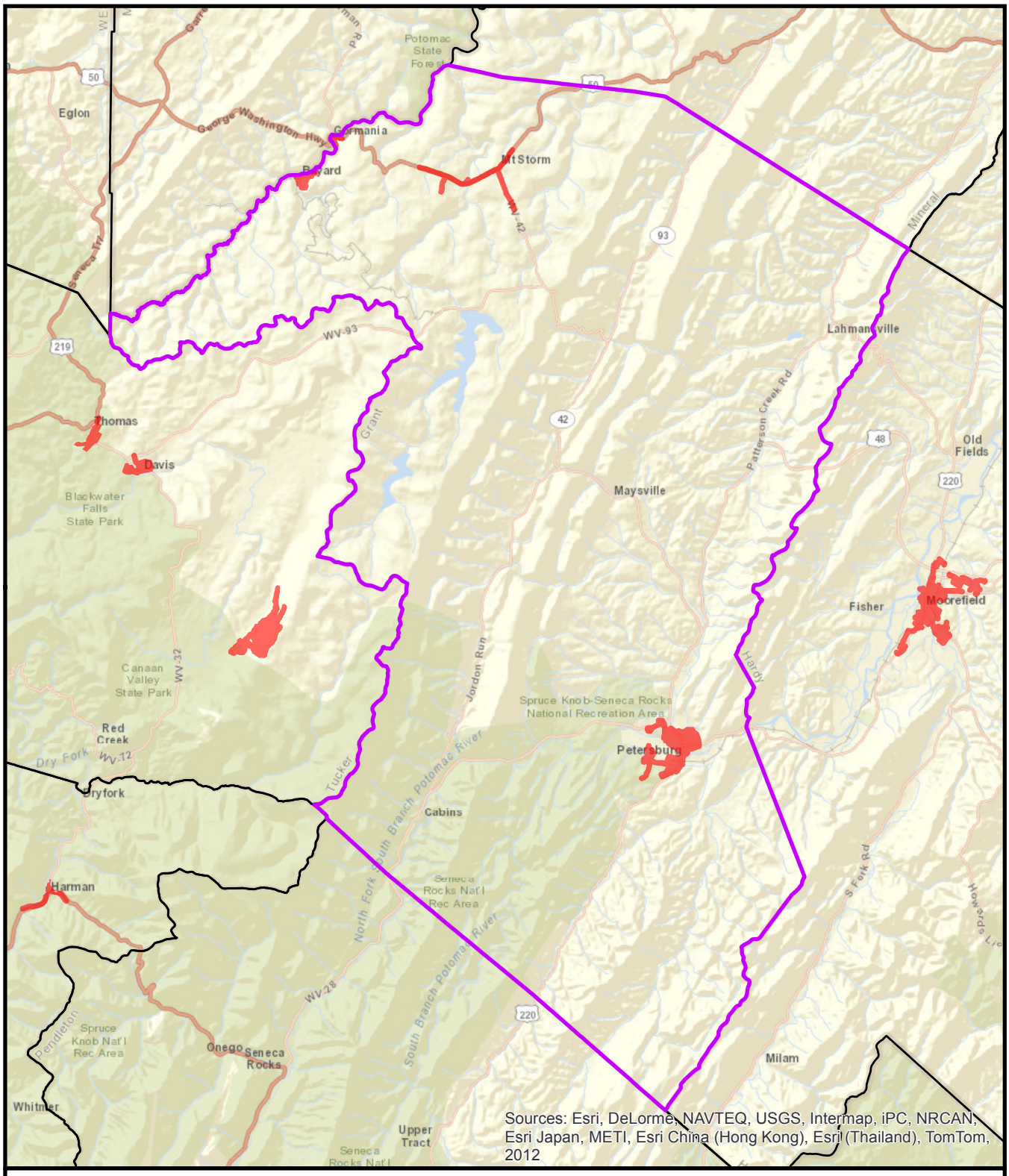
0 2 4 8 Miles

Served Area

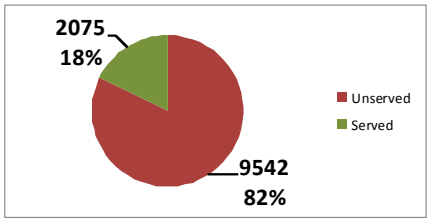
Water Service Area
Grant County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

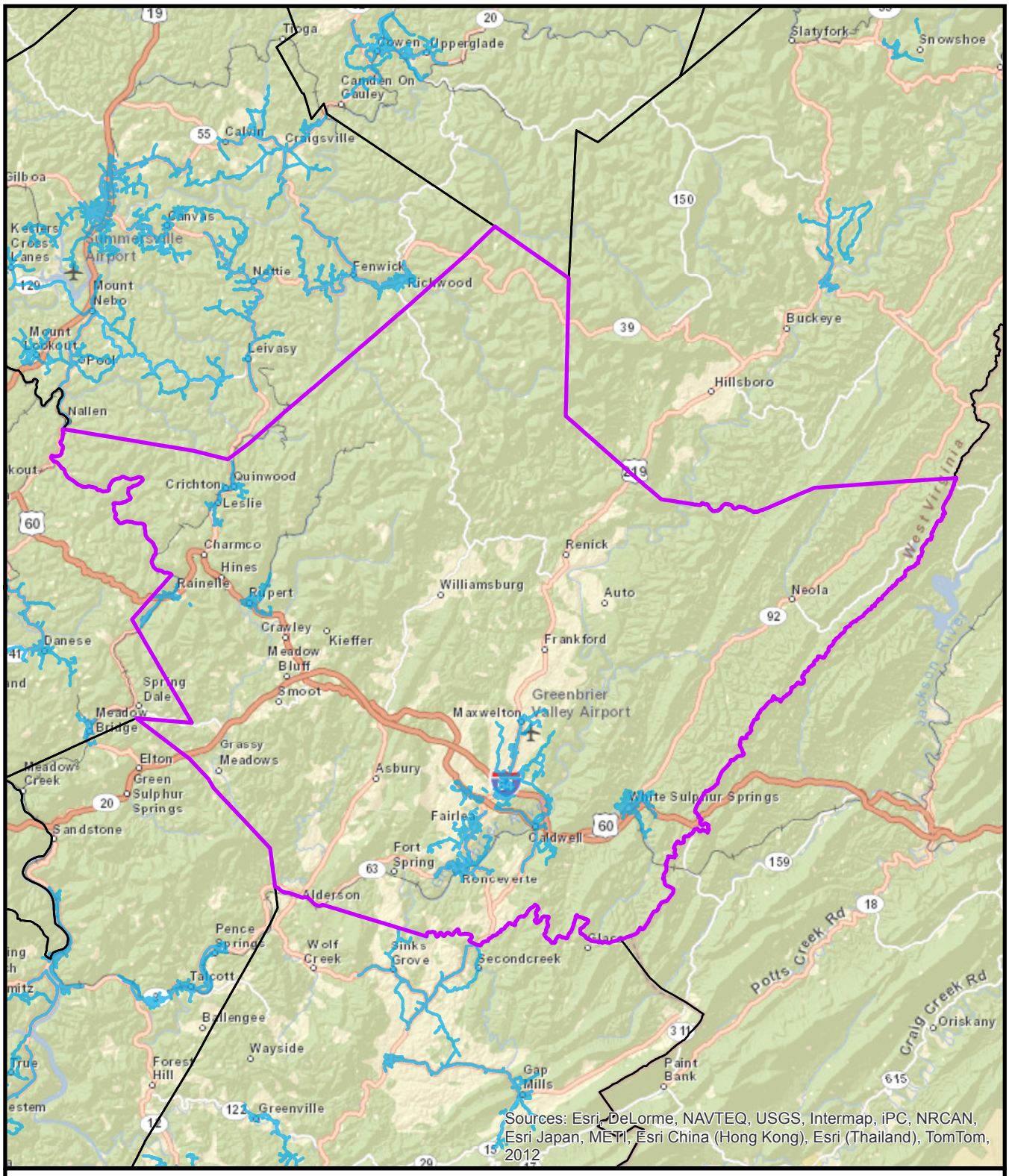
0 2 4 8 Miles

Served Area

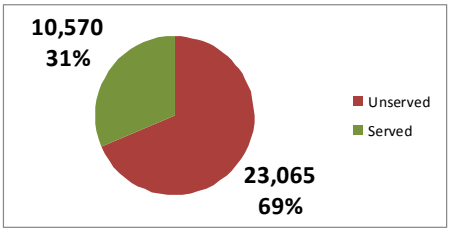
Sewer Service Area
Grant County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

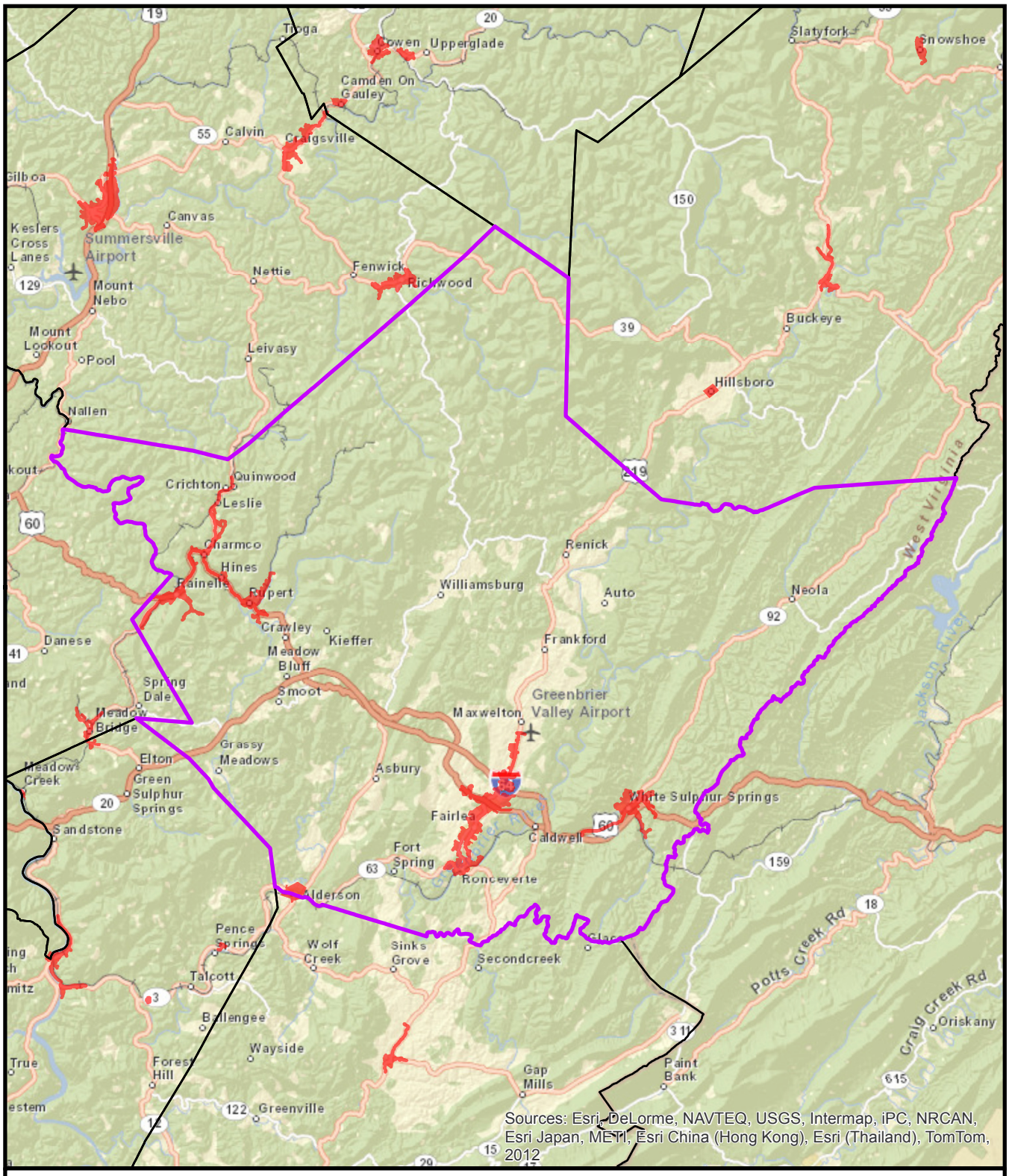
0 3.25 6.5 13 Miles

Served Area

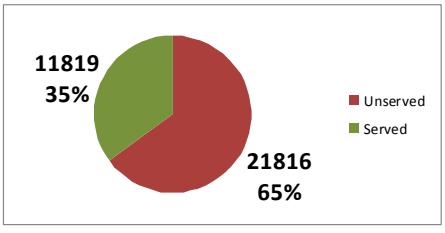
Water Service Area
Greenbrier County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



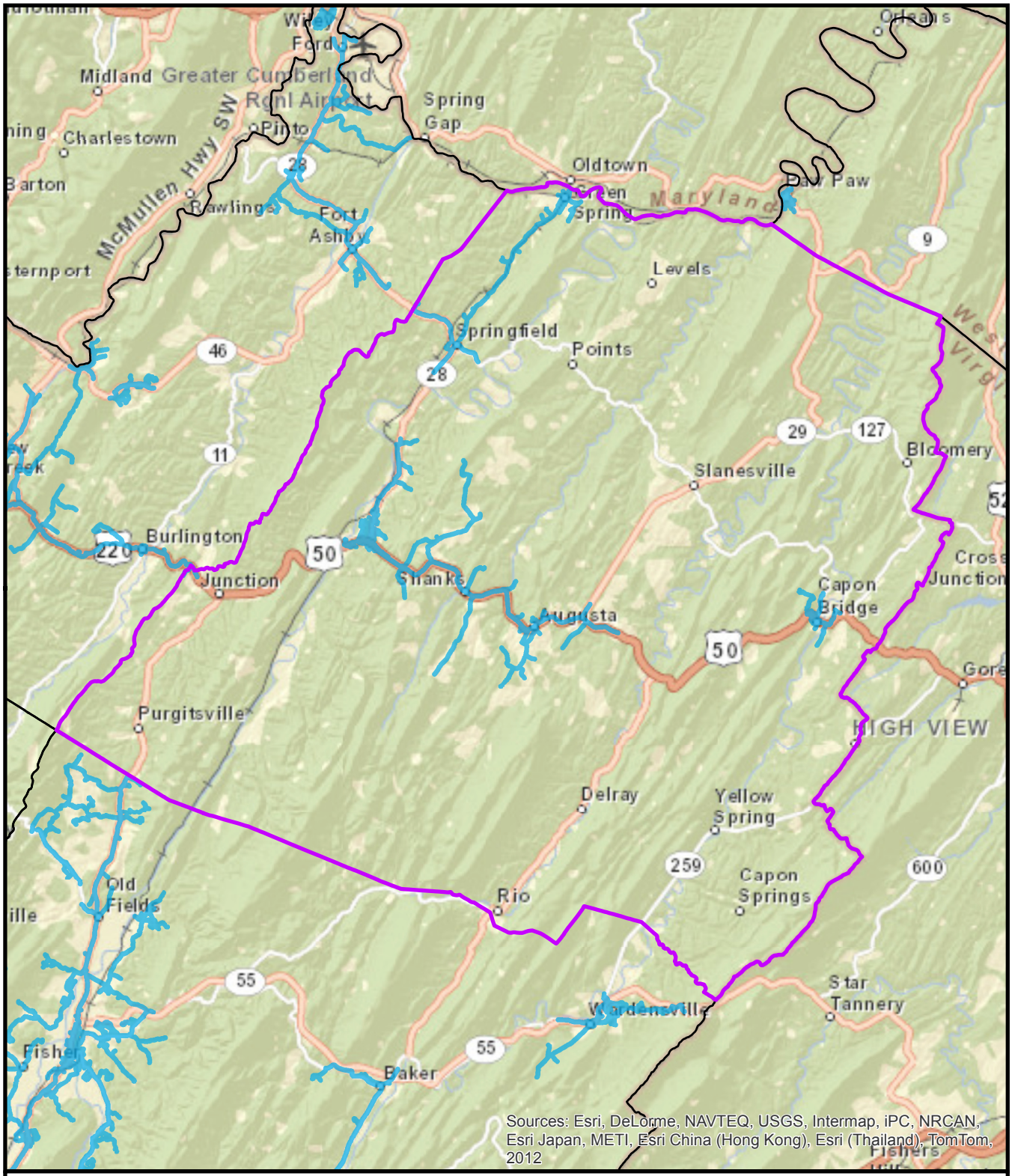
N

0 3.25 6.5 13 Miles

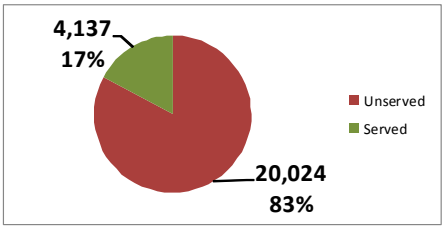
Served Area

Sewer Service Area
Greenbrier County

West Virginia
Infrastructure & Jobs
Development Council



Distribution of Service to Structures



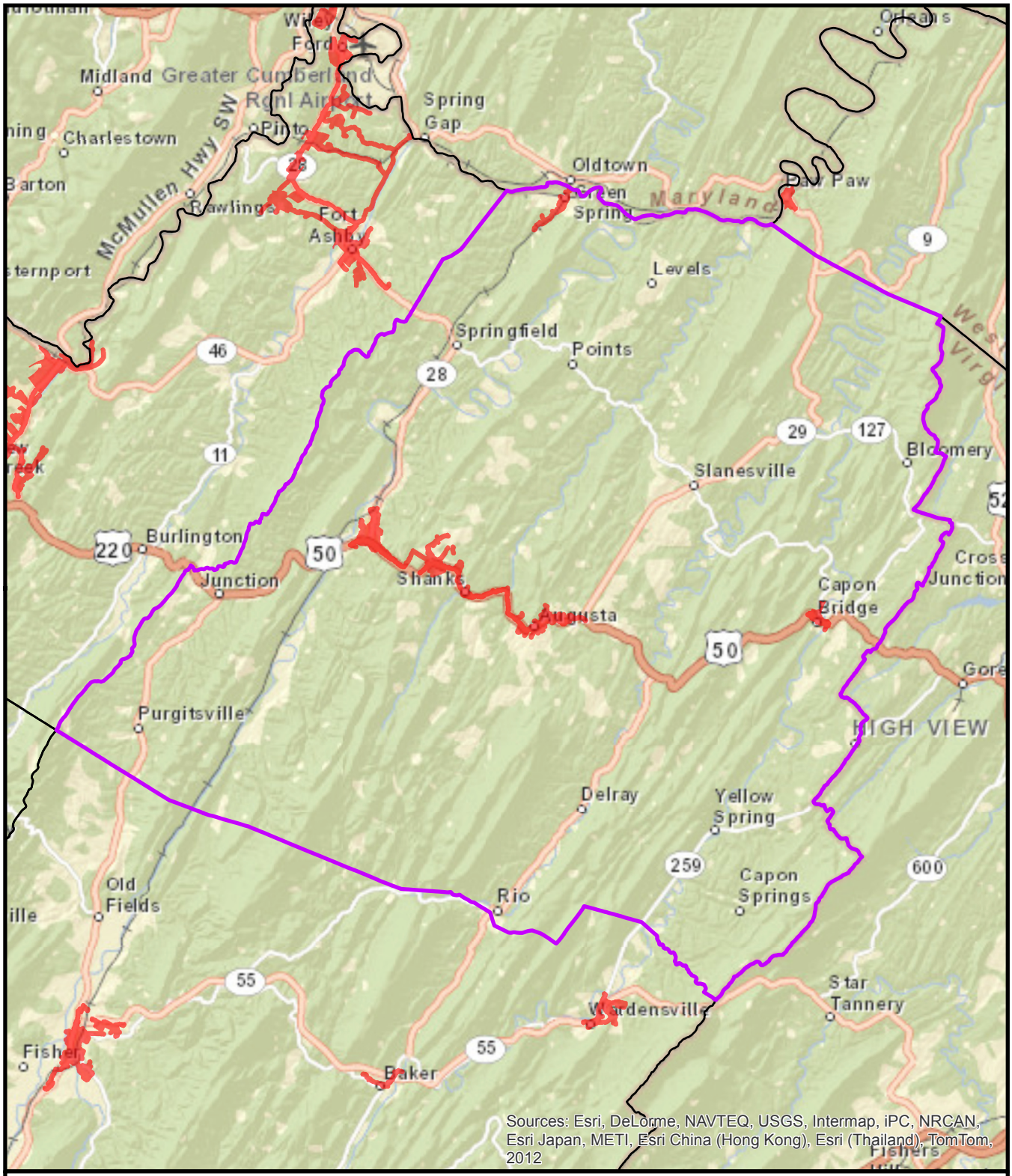
N

0 2.25 4.5 9 Miles

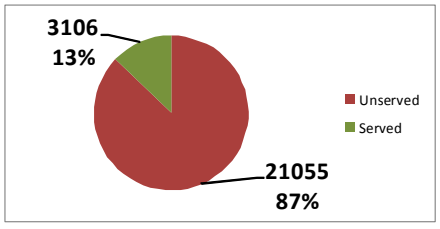
Served Area

Water Service Area
Hampshire County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



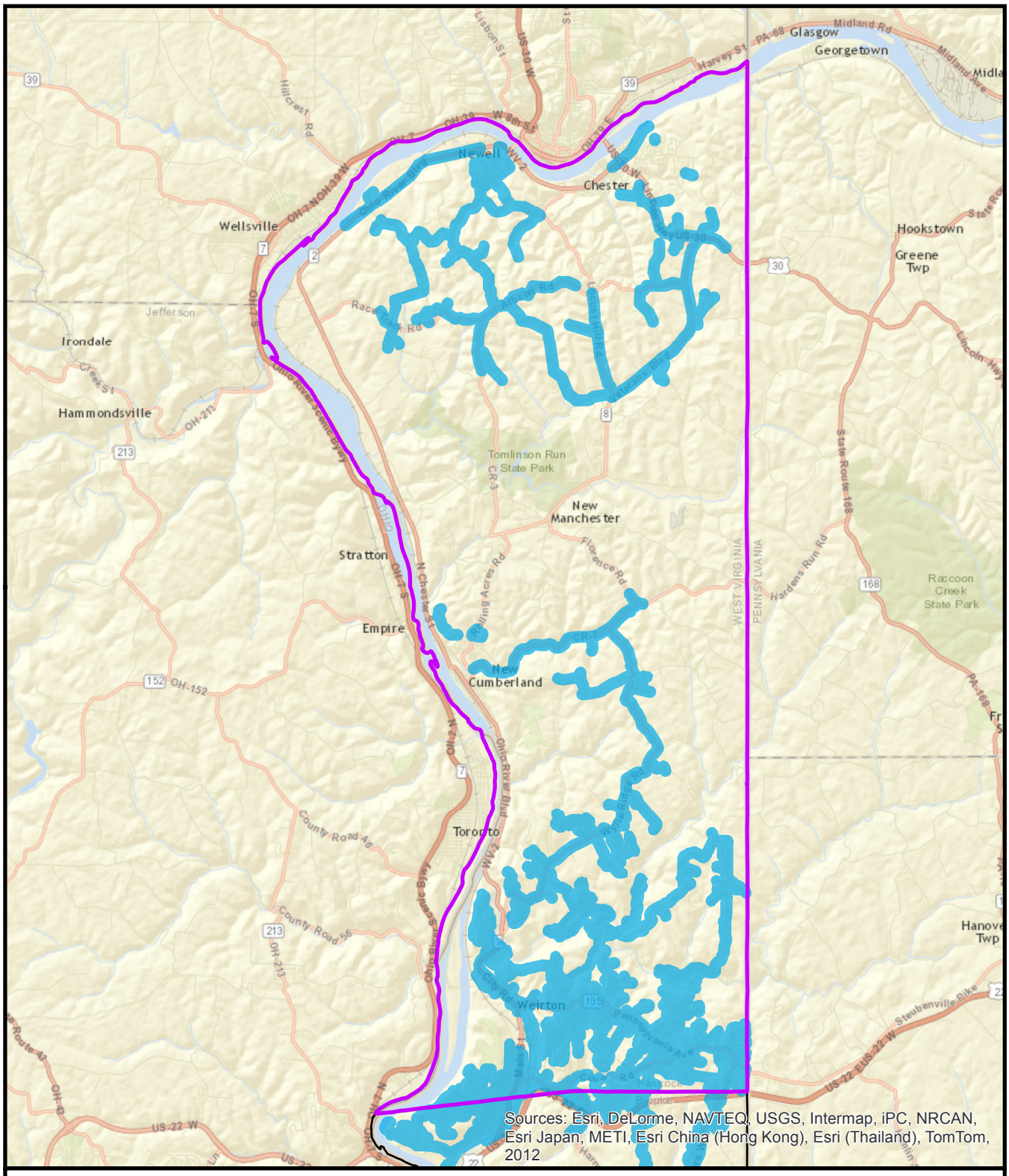
N

0 2.25 4.5 9 Miles

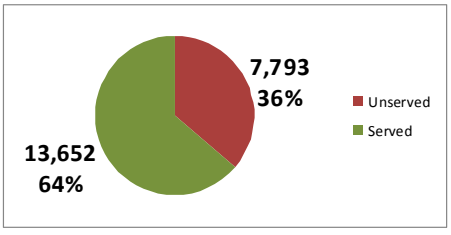
Served Area

Sewer Service Area
Hampshire County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

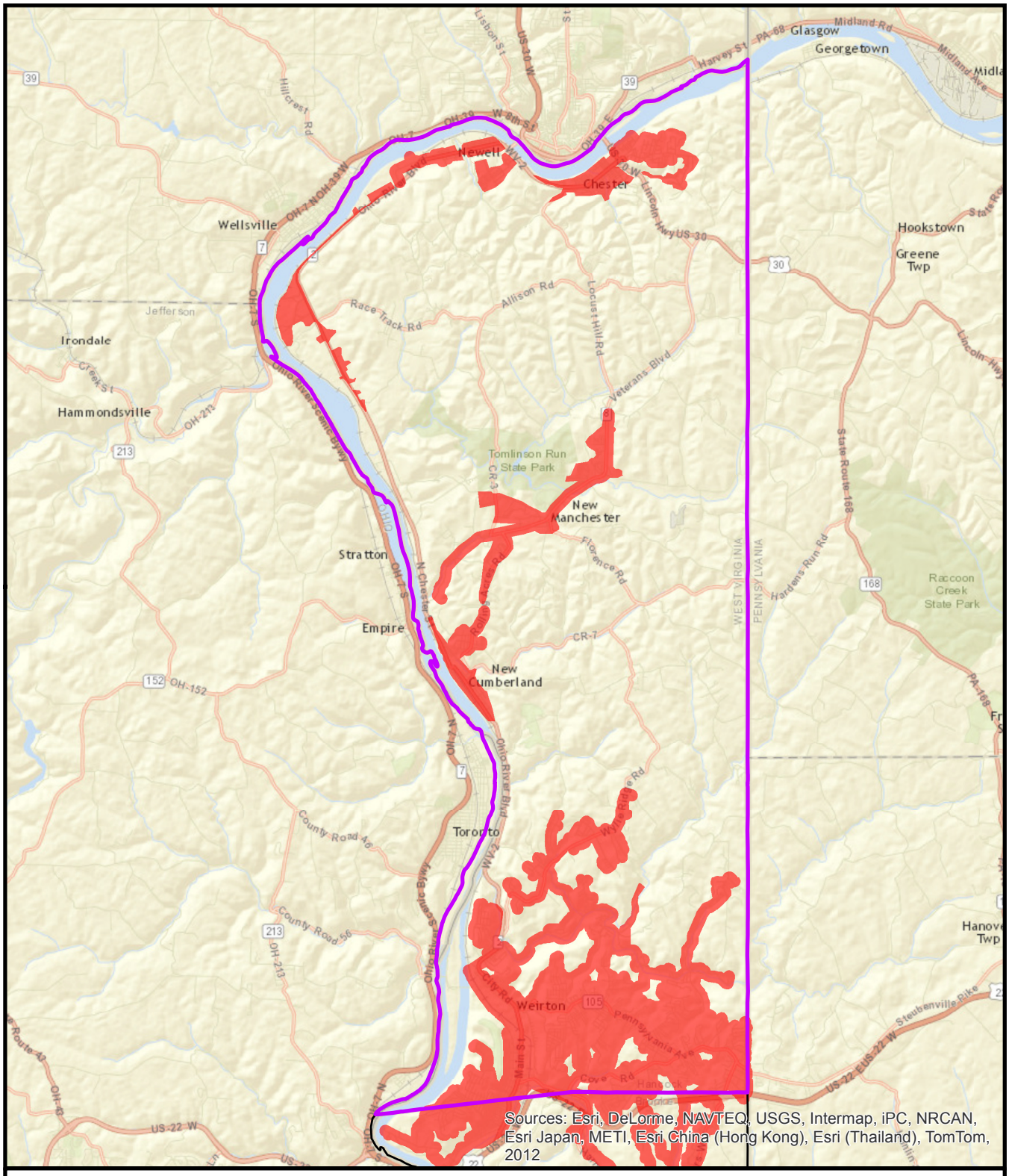
0 1 2 4 Miles

Served Area

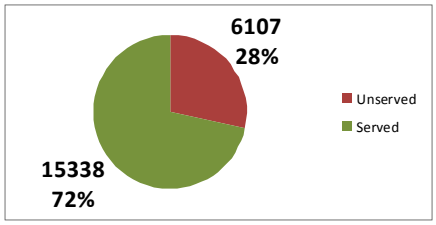
Water Service Area
Hancock County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



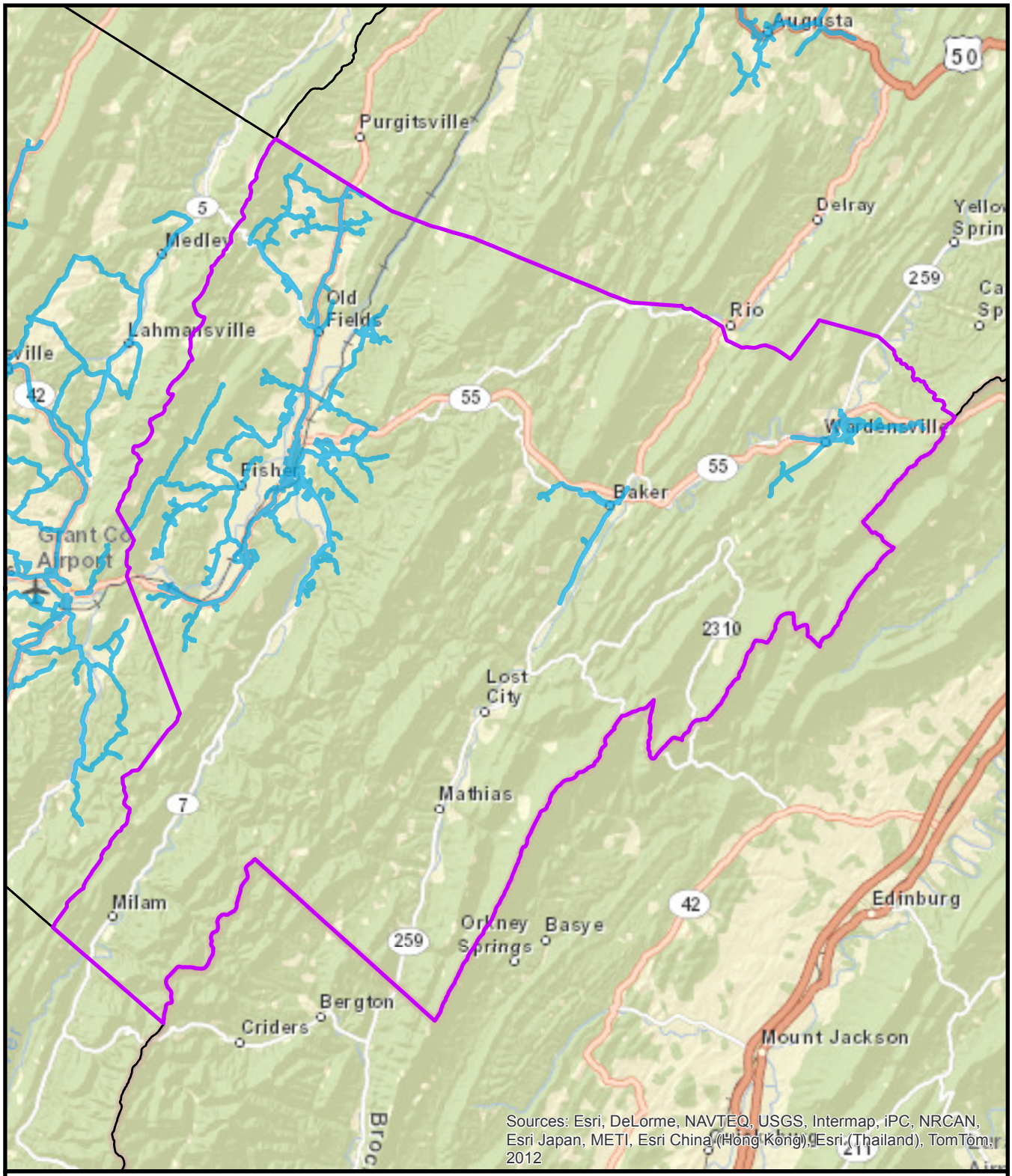
N

0 1 2 4 Miles

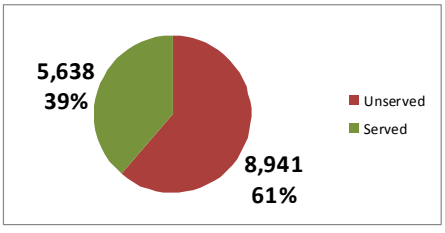
Served Area

Sewer Service Area
Hancock County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

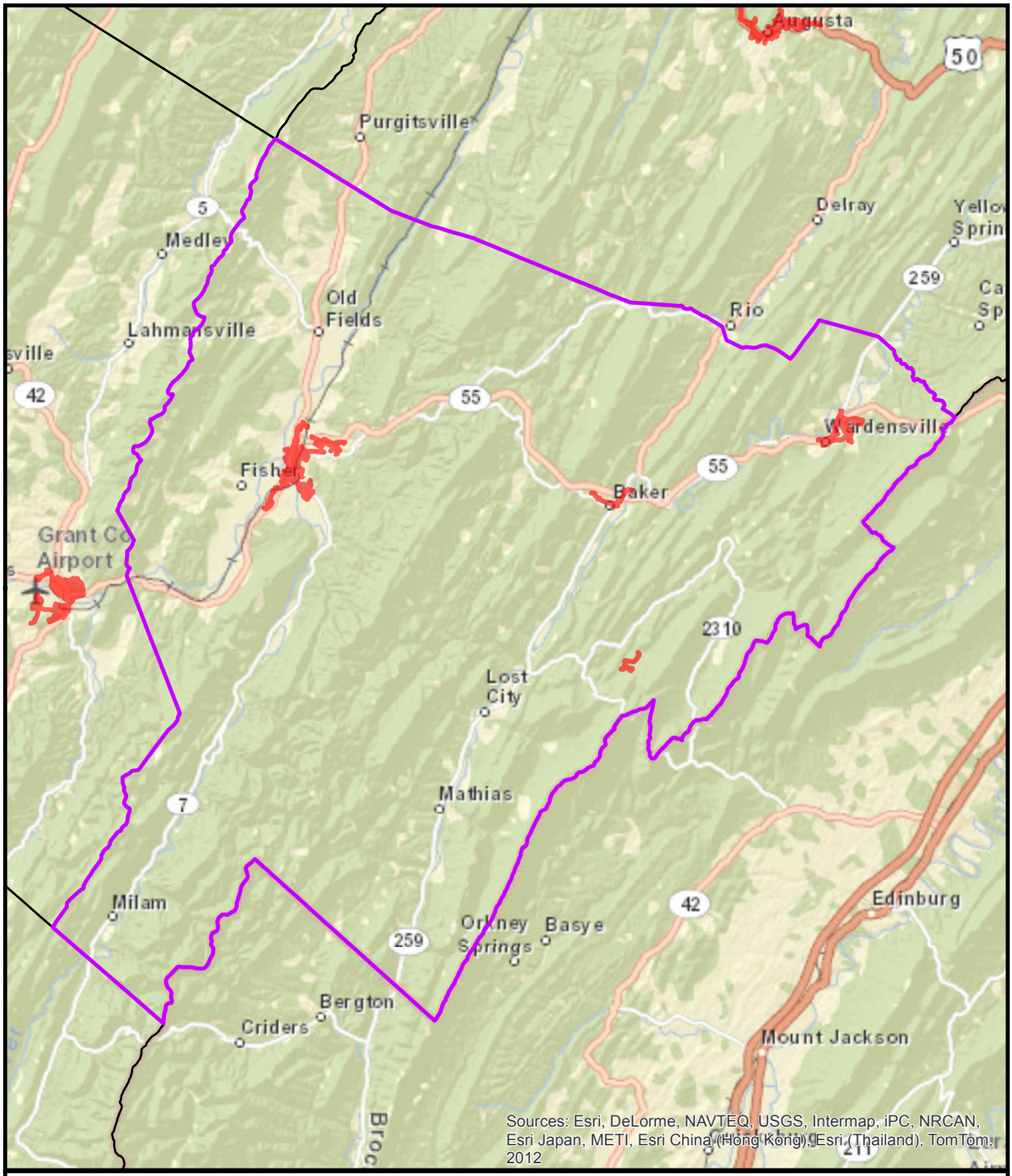
0 2.25 4.5 9 Miles

Served Area

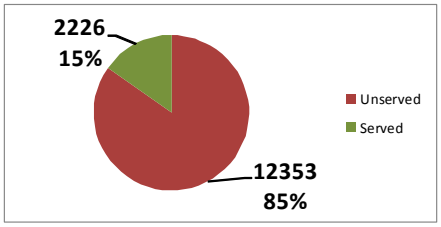
Water Service Area
Hardy County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



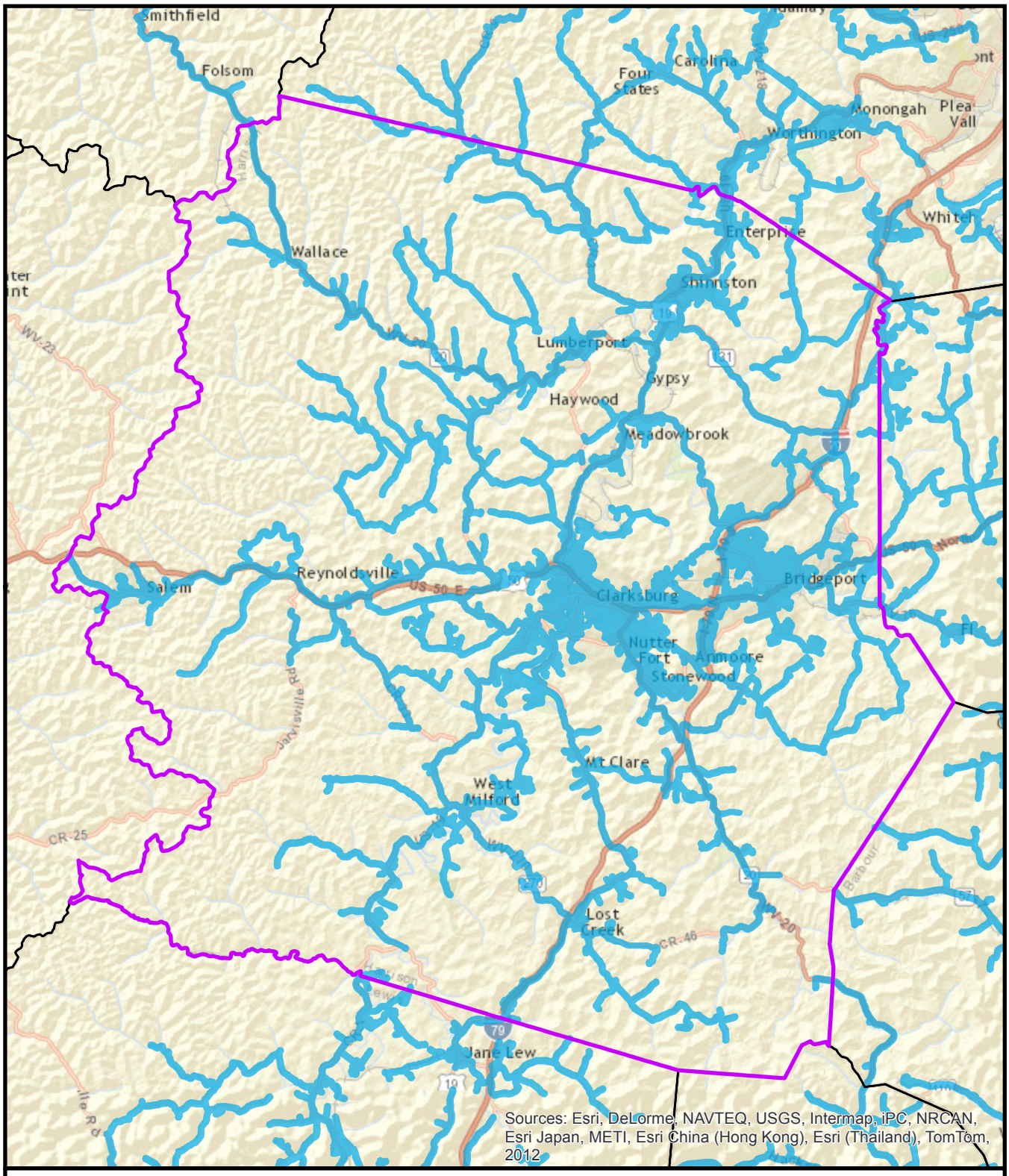
N

0 2.25 4.5 9 Miles

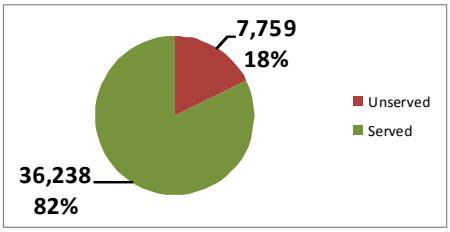
Served Area

Sewer Service Area
Hardy County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



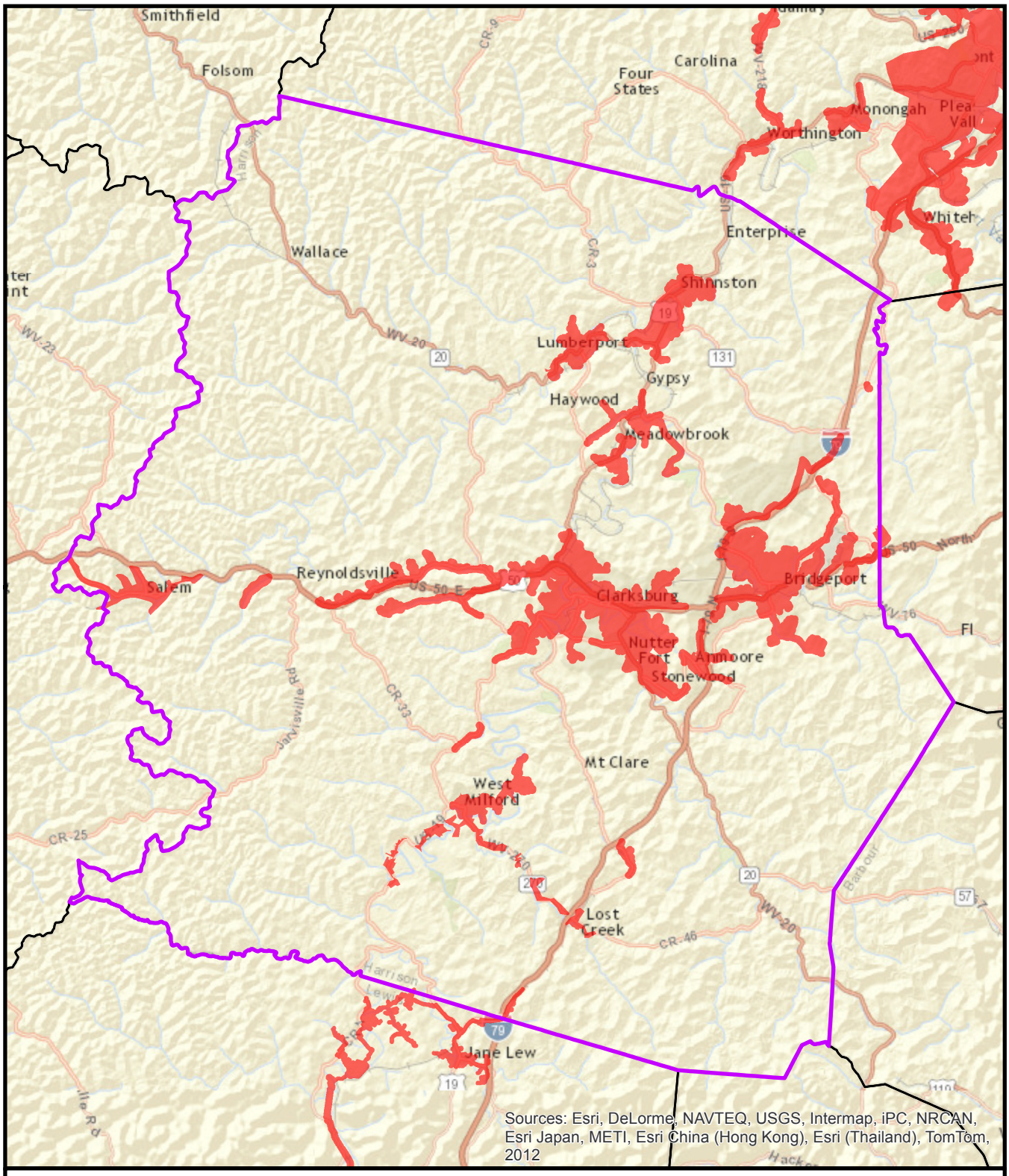
N

0 1.5 3 6 Miles

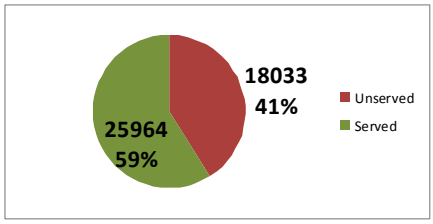
Served Area

Water Service Area
Harrison County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

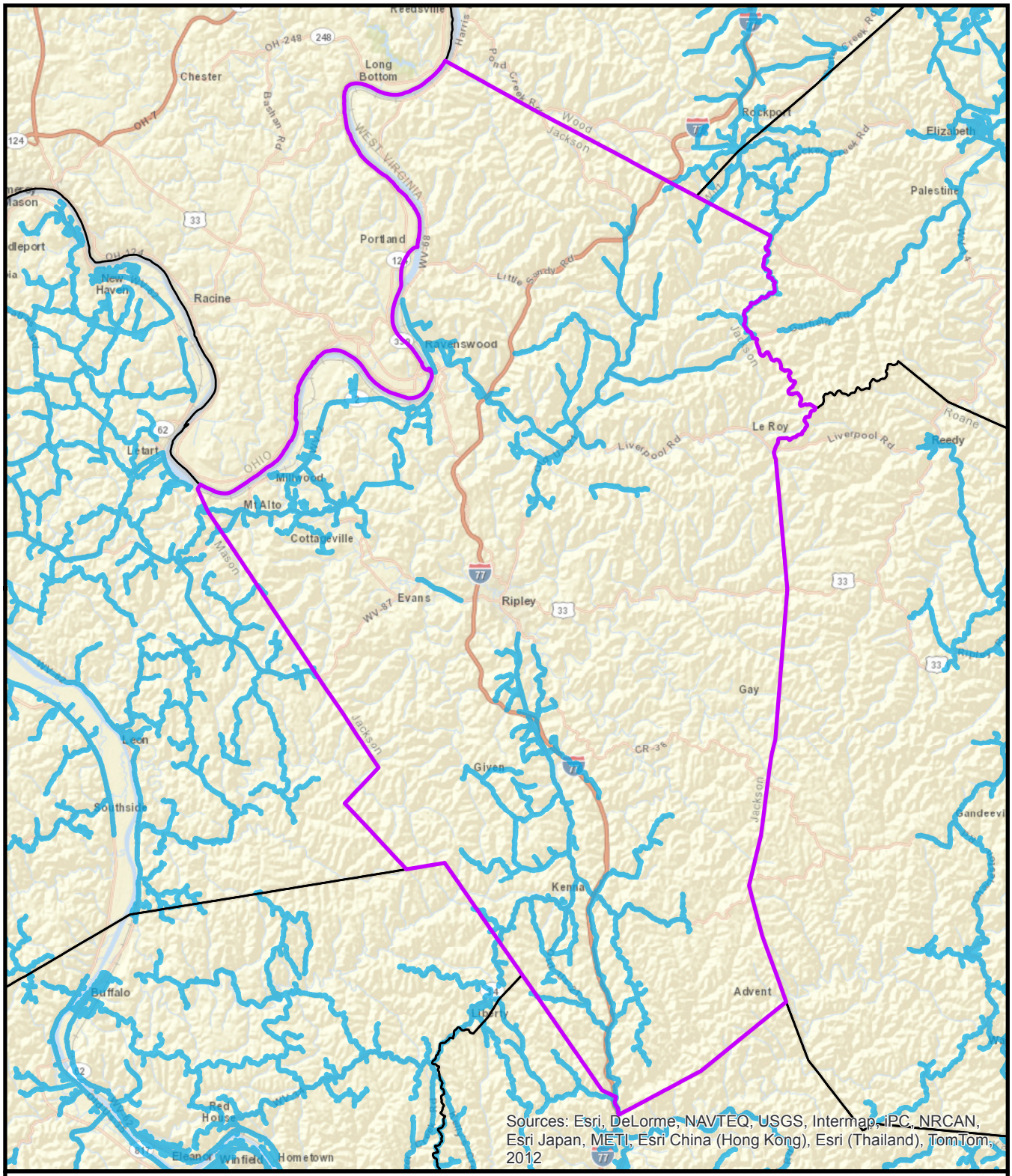
0 1.5 3 6 Miles

Served Area

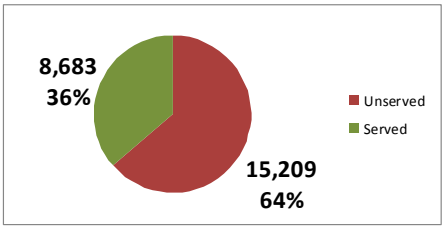
Sewer Service Area
Harrison County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

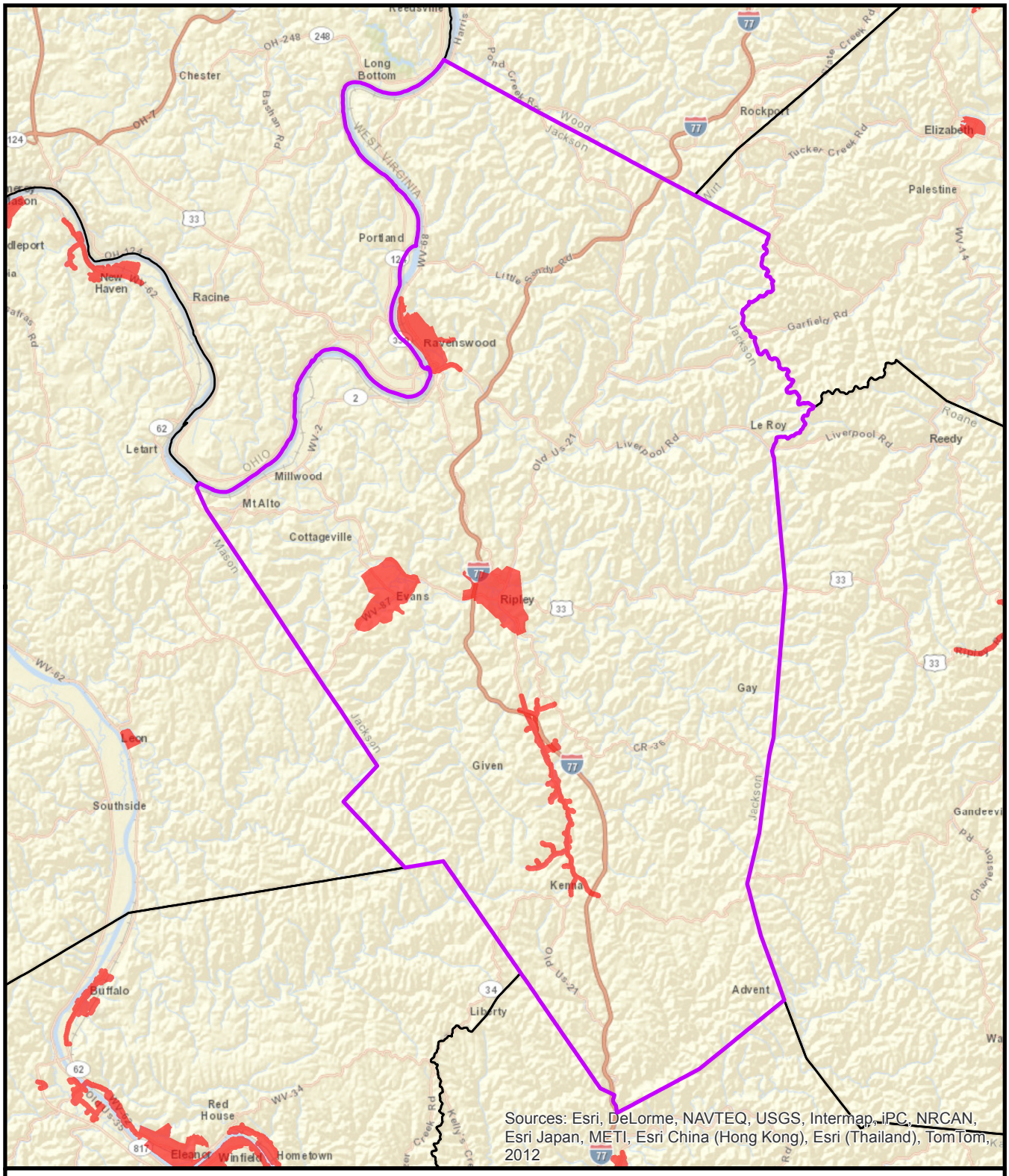
0 2.25 4.5 9 Miles

Served Area

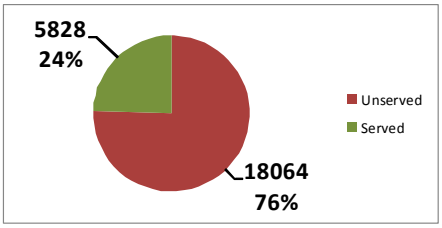
Water Service Area
Jackson County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



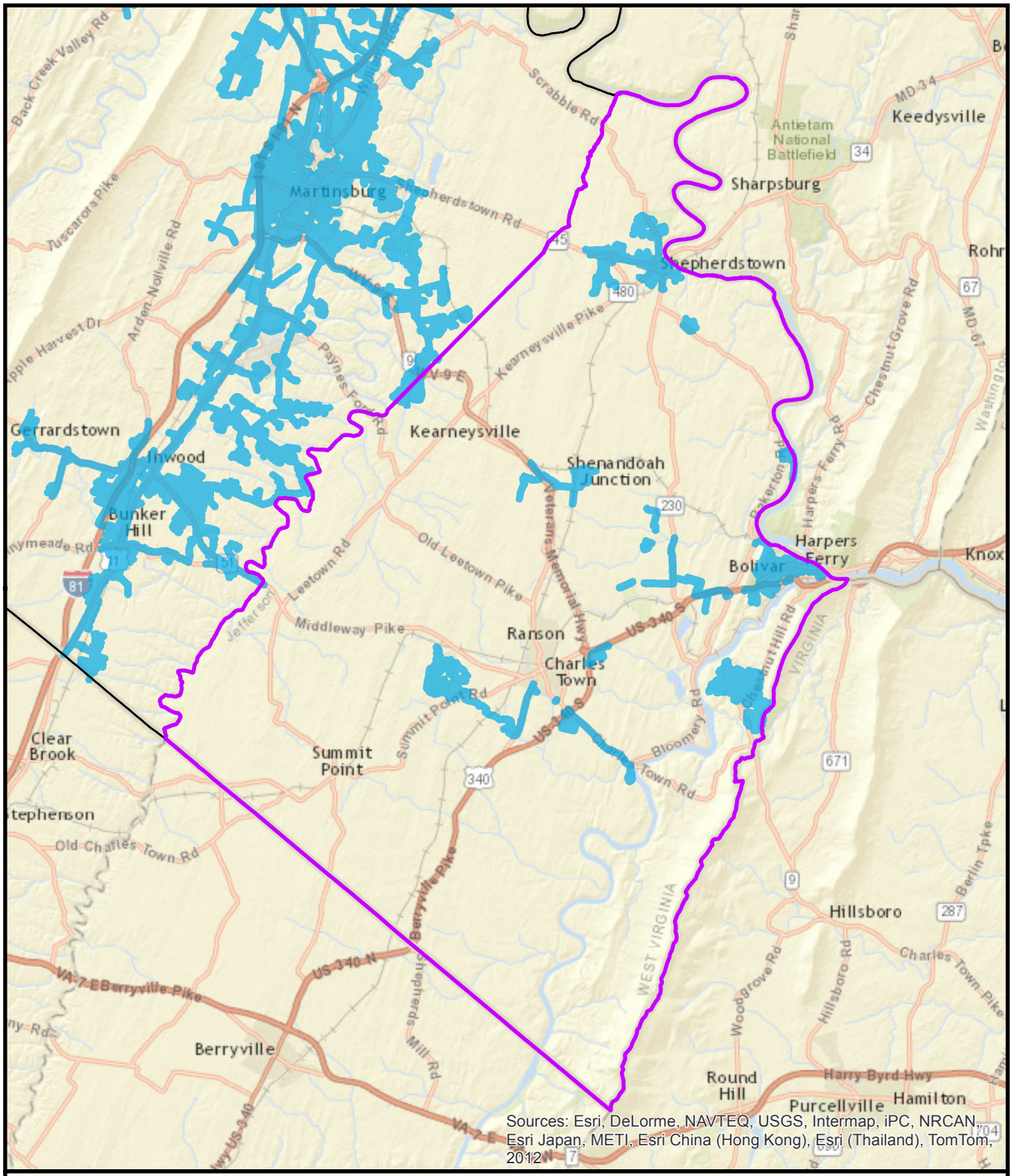
N

0 2.25 4.5 9 Miles

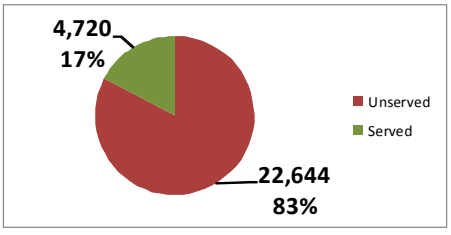
Served Area

Sewer Service Area
Jackson County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

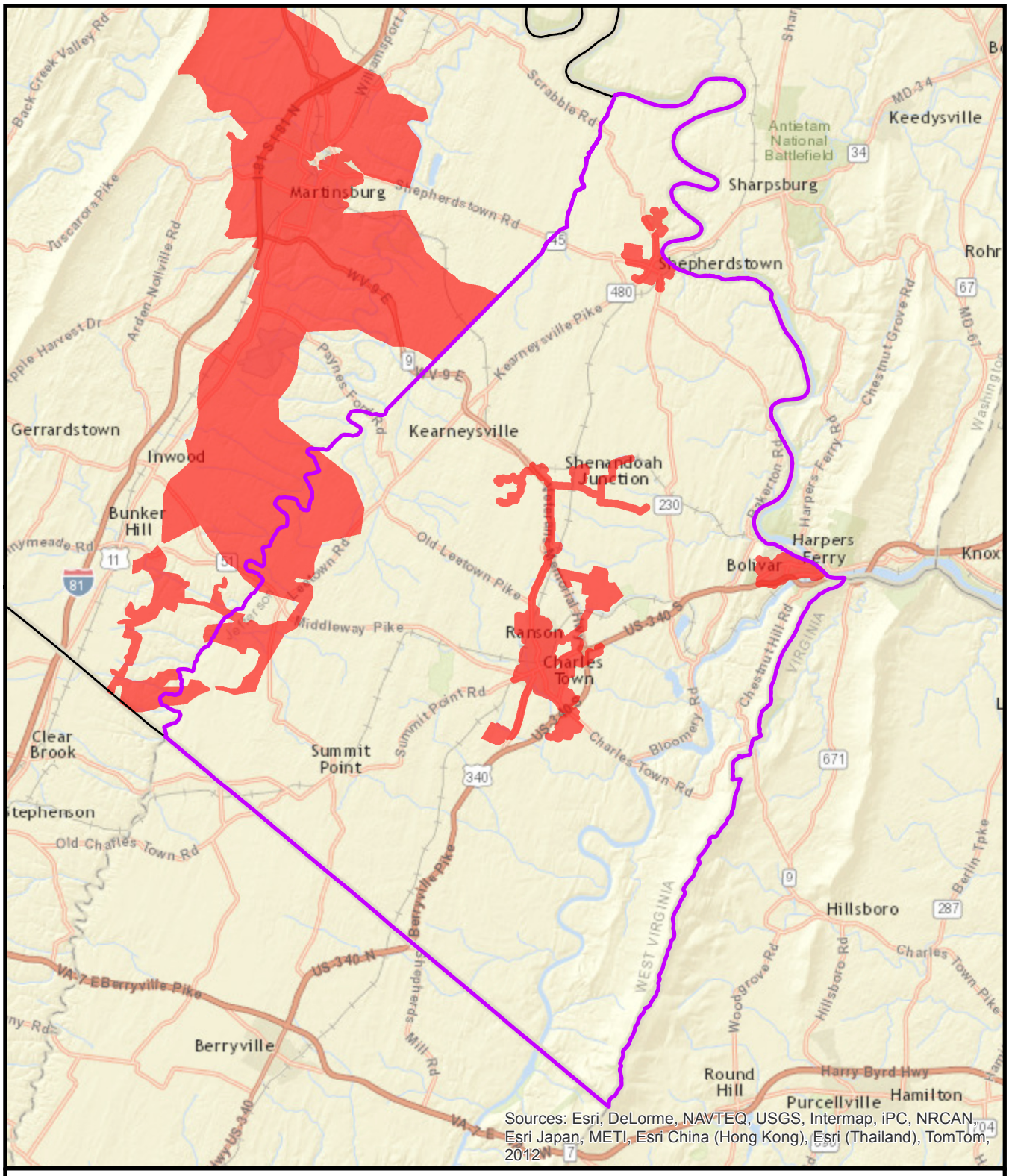
0 1.5 3 6 Miles

Served Area

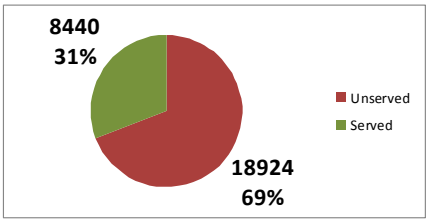
Water Service Area
Jefferson County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



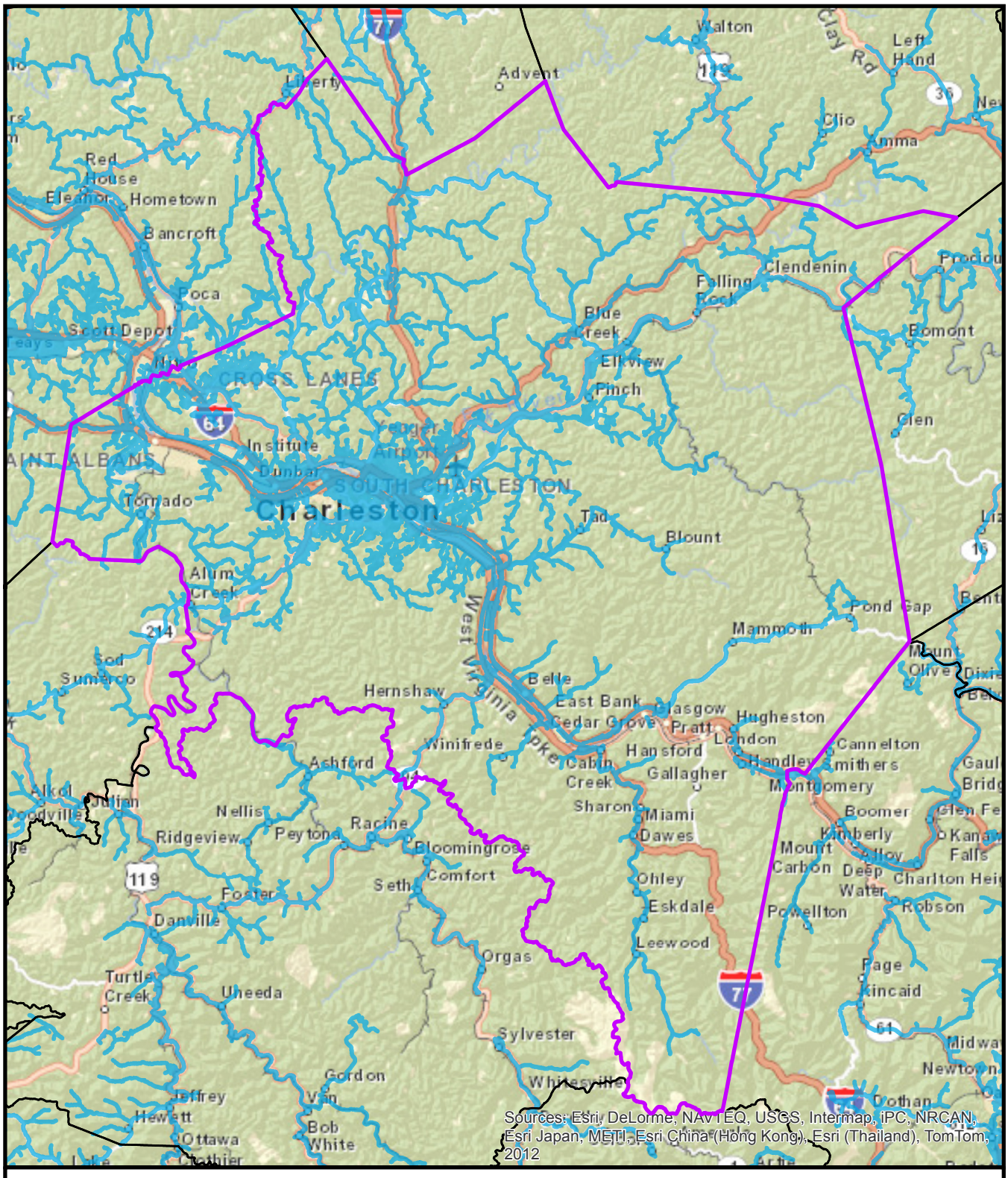
N

0 1.5 3 6 Miles

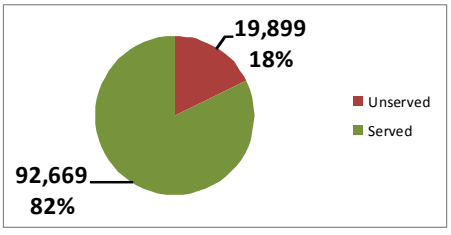
Served Area

Sewer Service Area
Jefferson County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



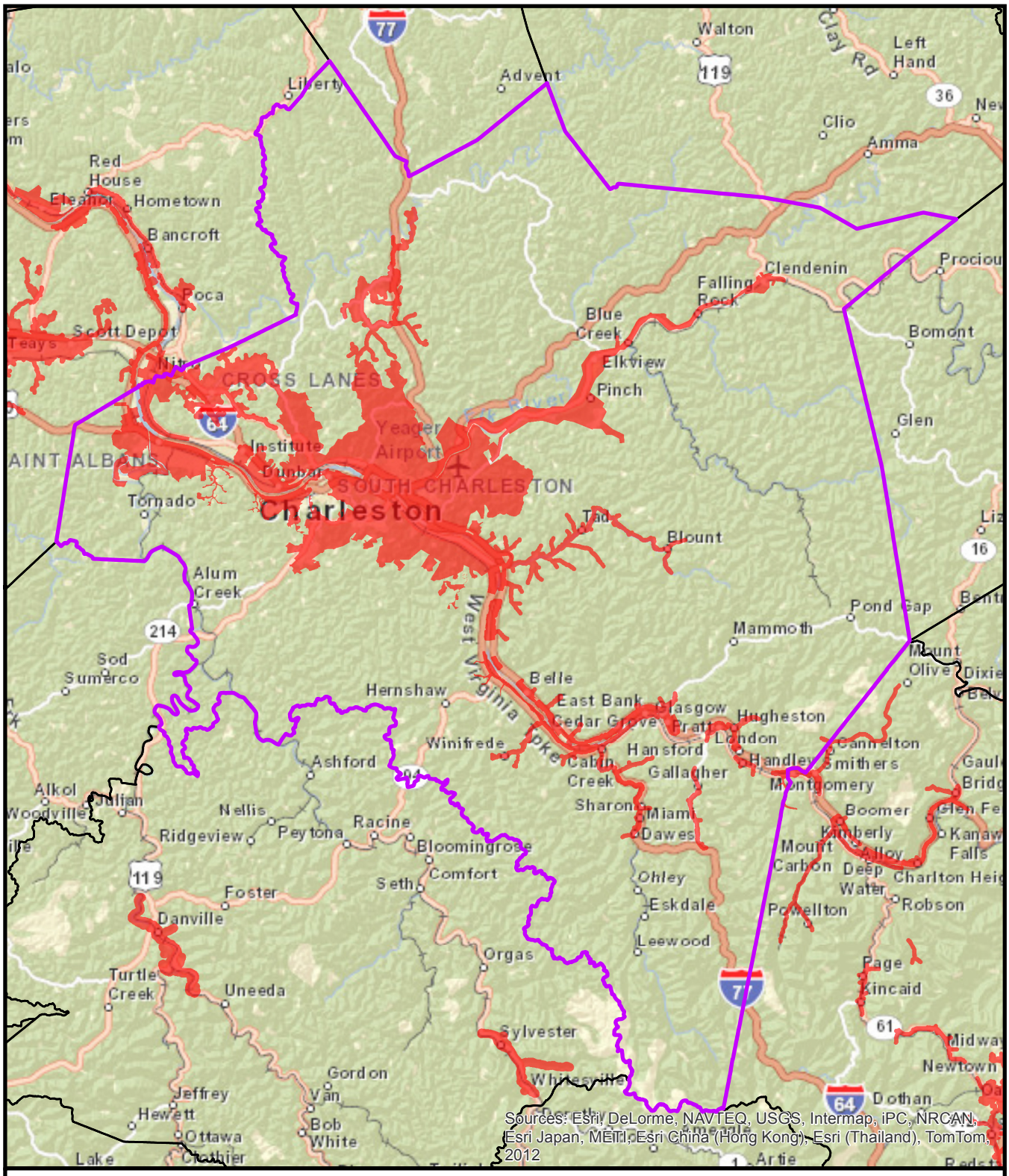
N

0 2.5 5 10 Miles

Served Area

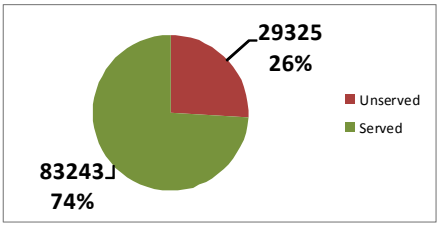
Water Service Area
Kanawha County

West Virginia
Infrastructure & Jobs Development Council



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Distribution of Service to Structures



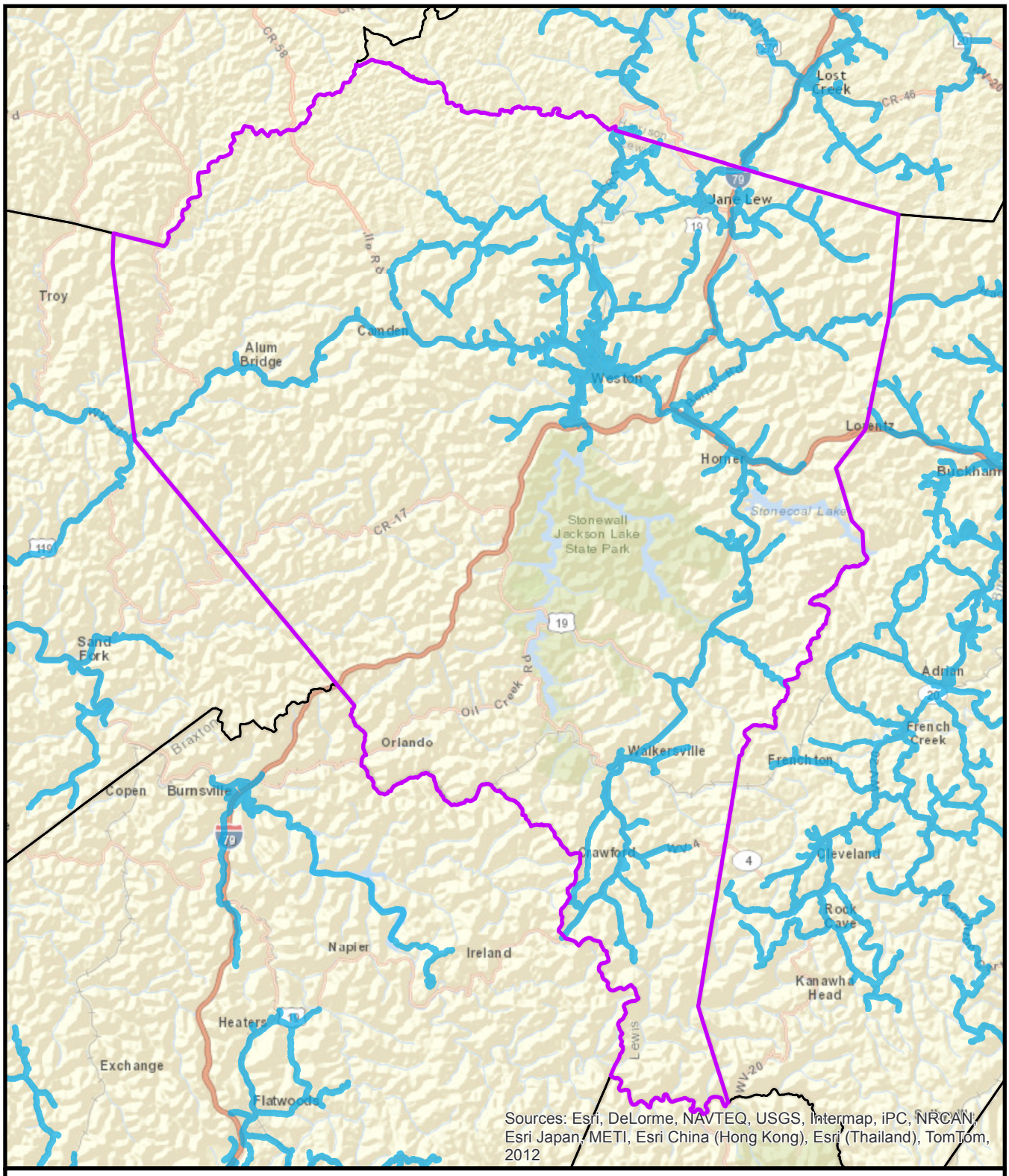
N

0 2.5 5 10 Miles

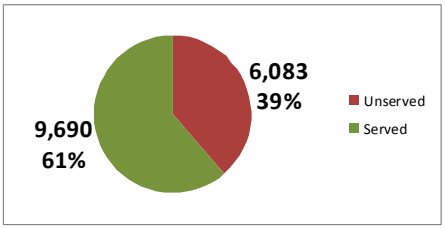
Served Area

Sewer Service Area
Kanawha County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



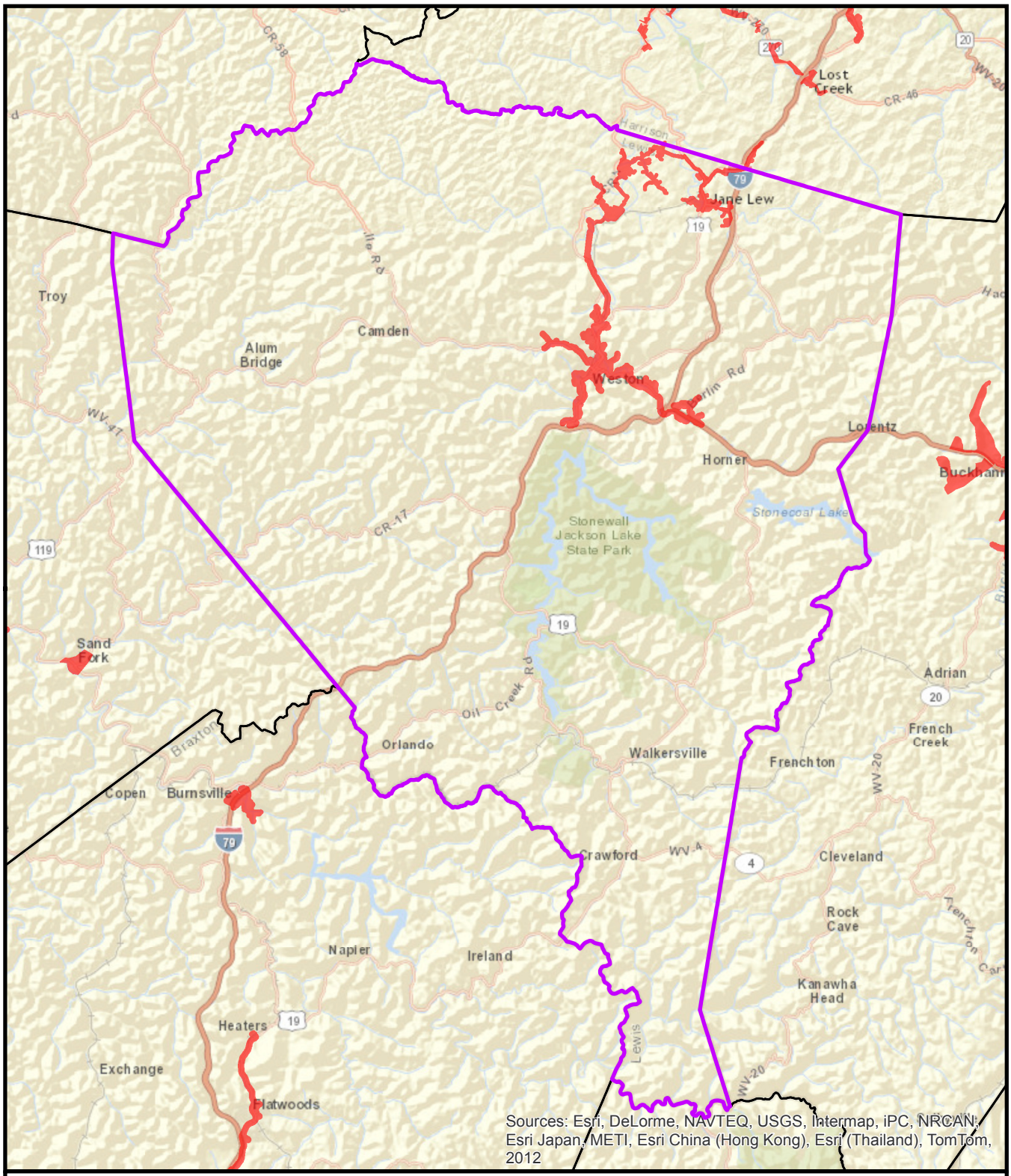
N

0 1.75 3.5 7 Miles

Served Area

Water Service Area
Lewis County

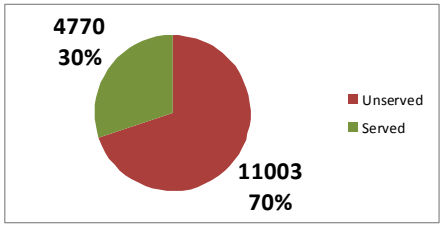
West Virginia
Infrastructure & Jobs Development Council



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Sewer Service Area
Lewis County

Distribution of Service to Structures



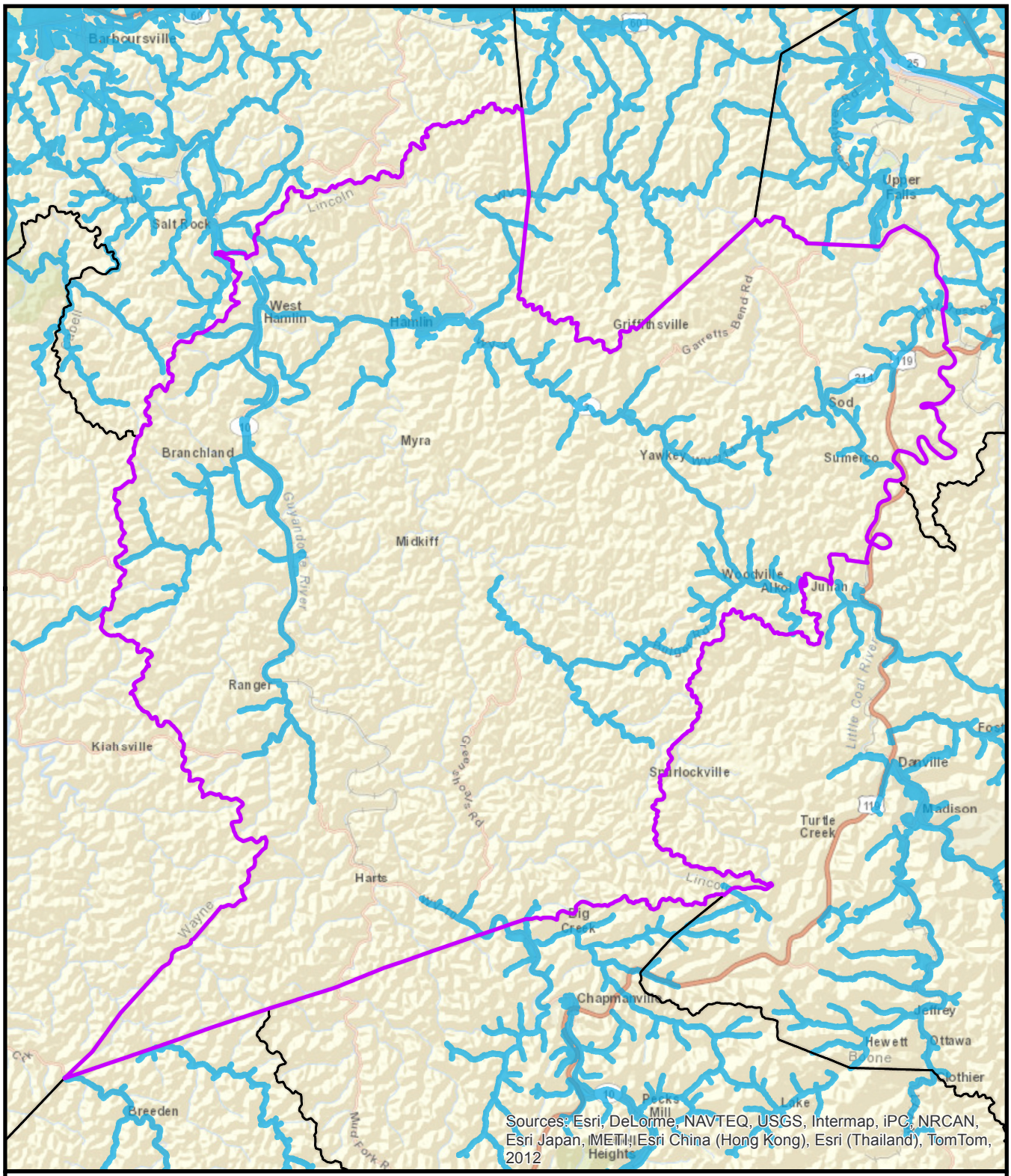
N

0 1.75 3.5 7 Miles

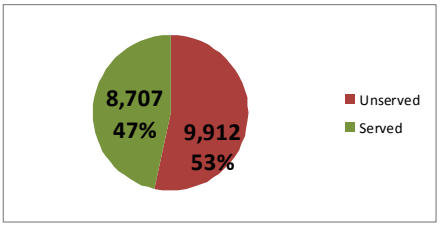
Served Area

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

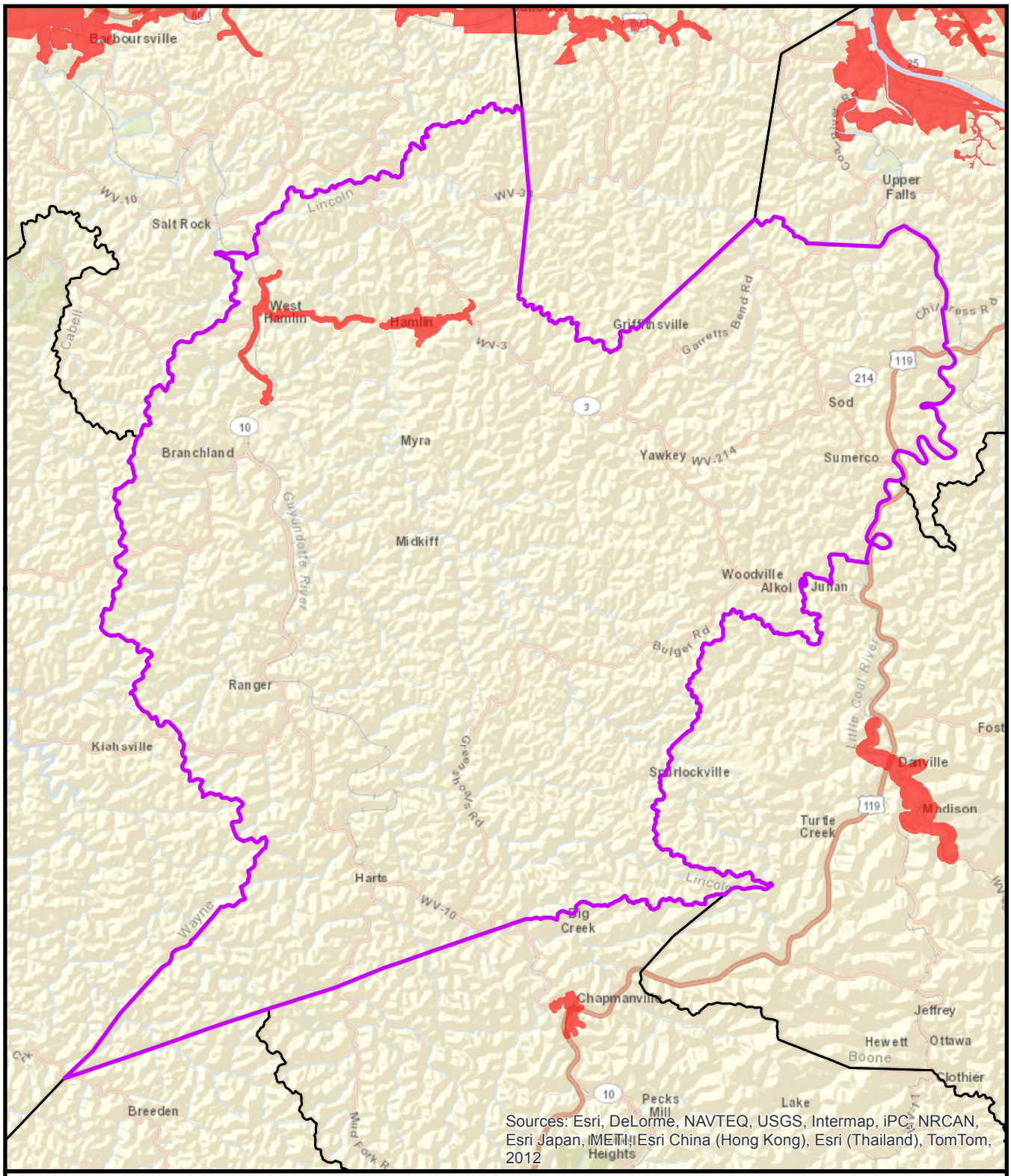
0 1.75 3.5 7 Miles

Served Area

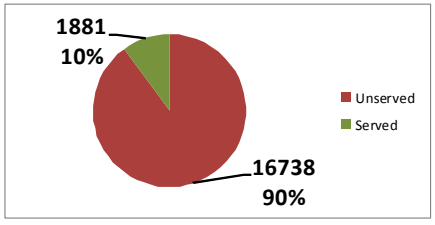
Water Service Area
Lincoln County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



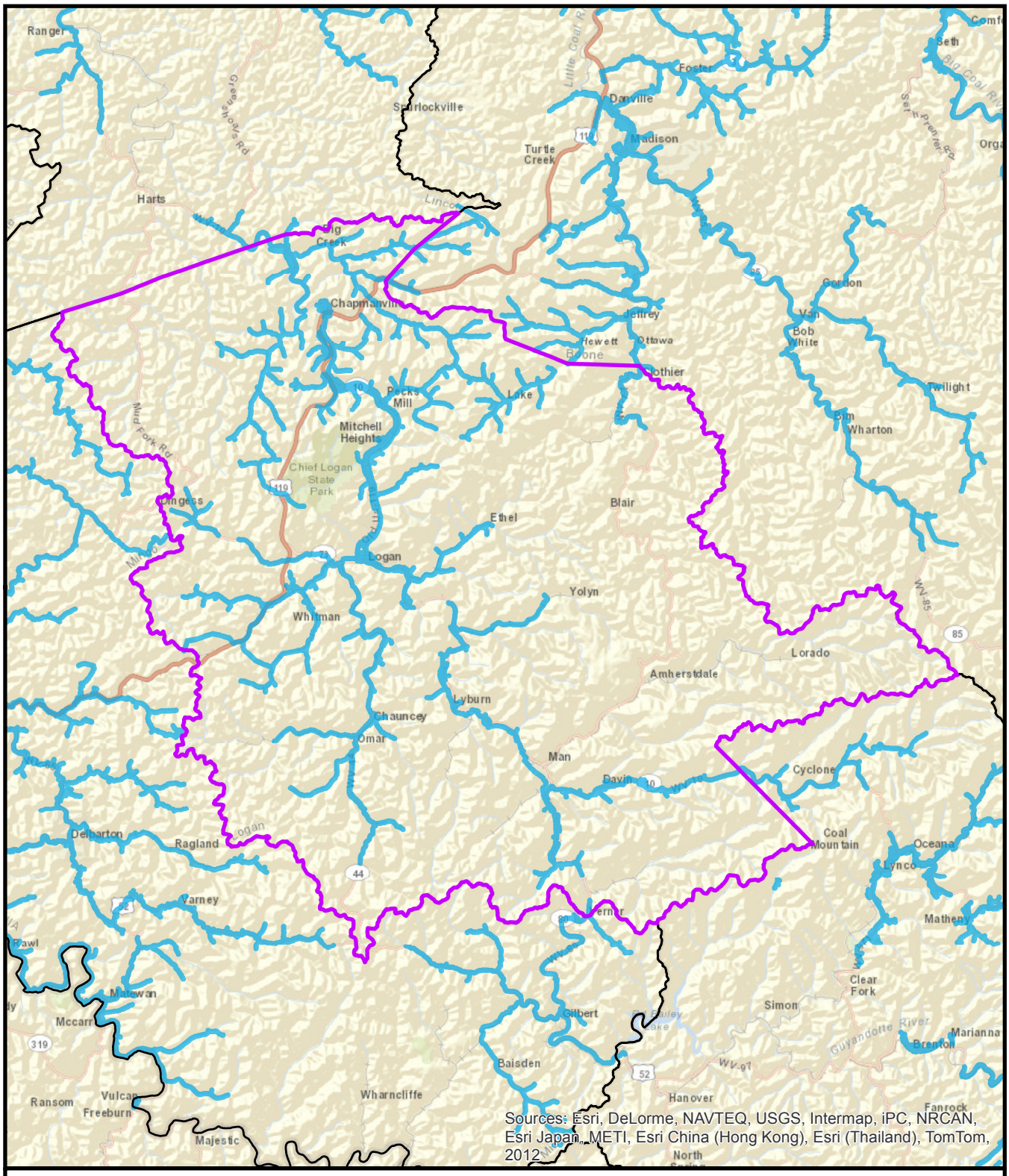
N

0 1.75 3.5 7 Miles

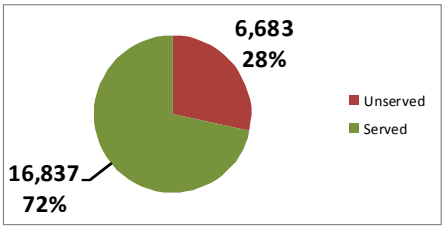
Served Area

Sewer Service Area
Lincoln County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

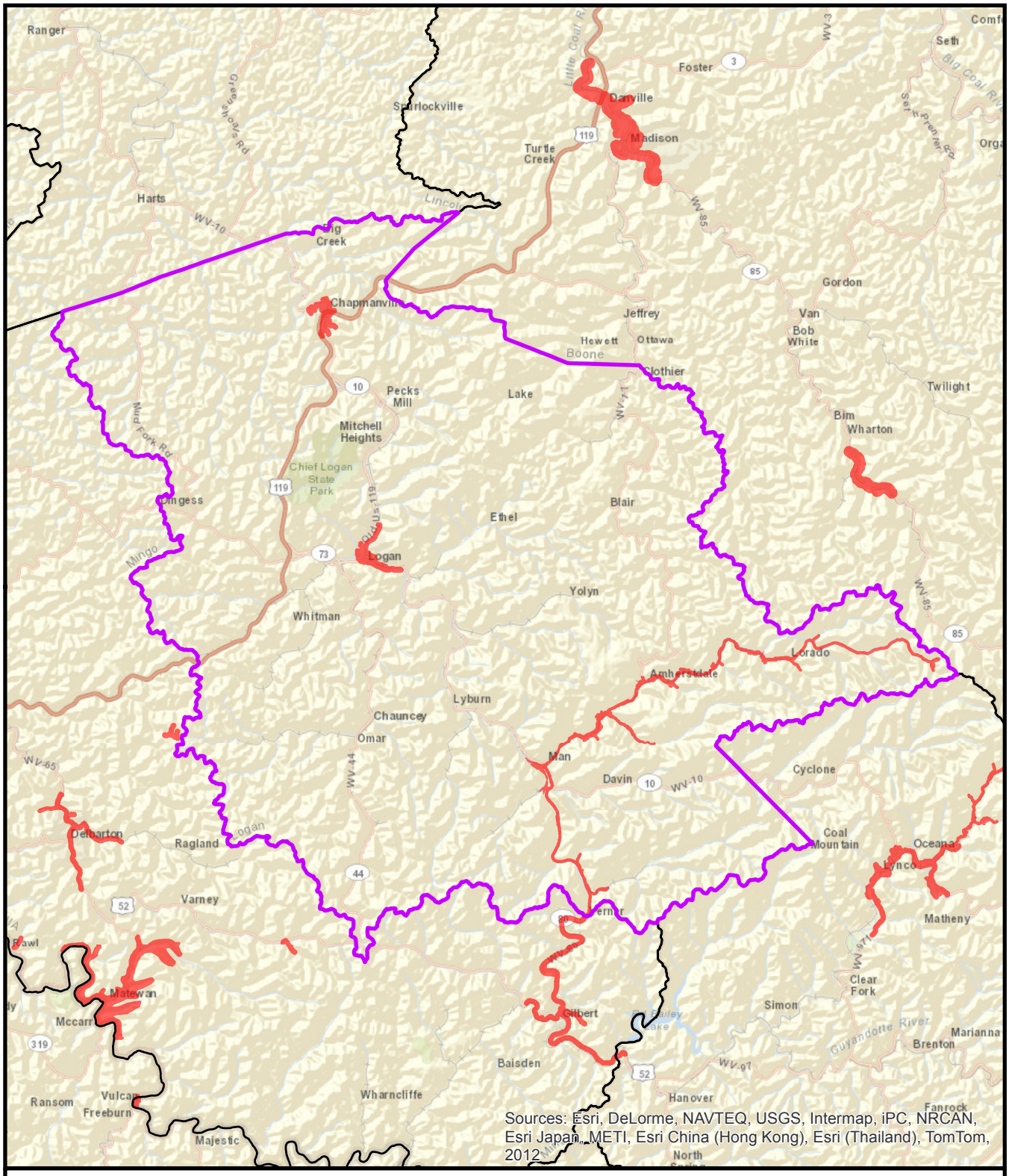
0 2 4 8 Miles

Served Area

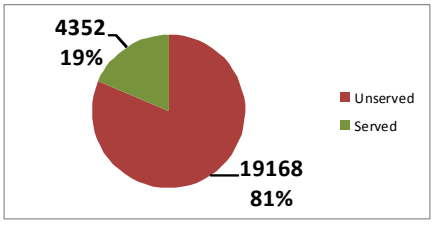
Water Service Area
Logan County

West Virginia
Infrastructure & Jobs
Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

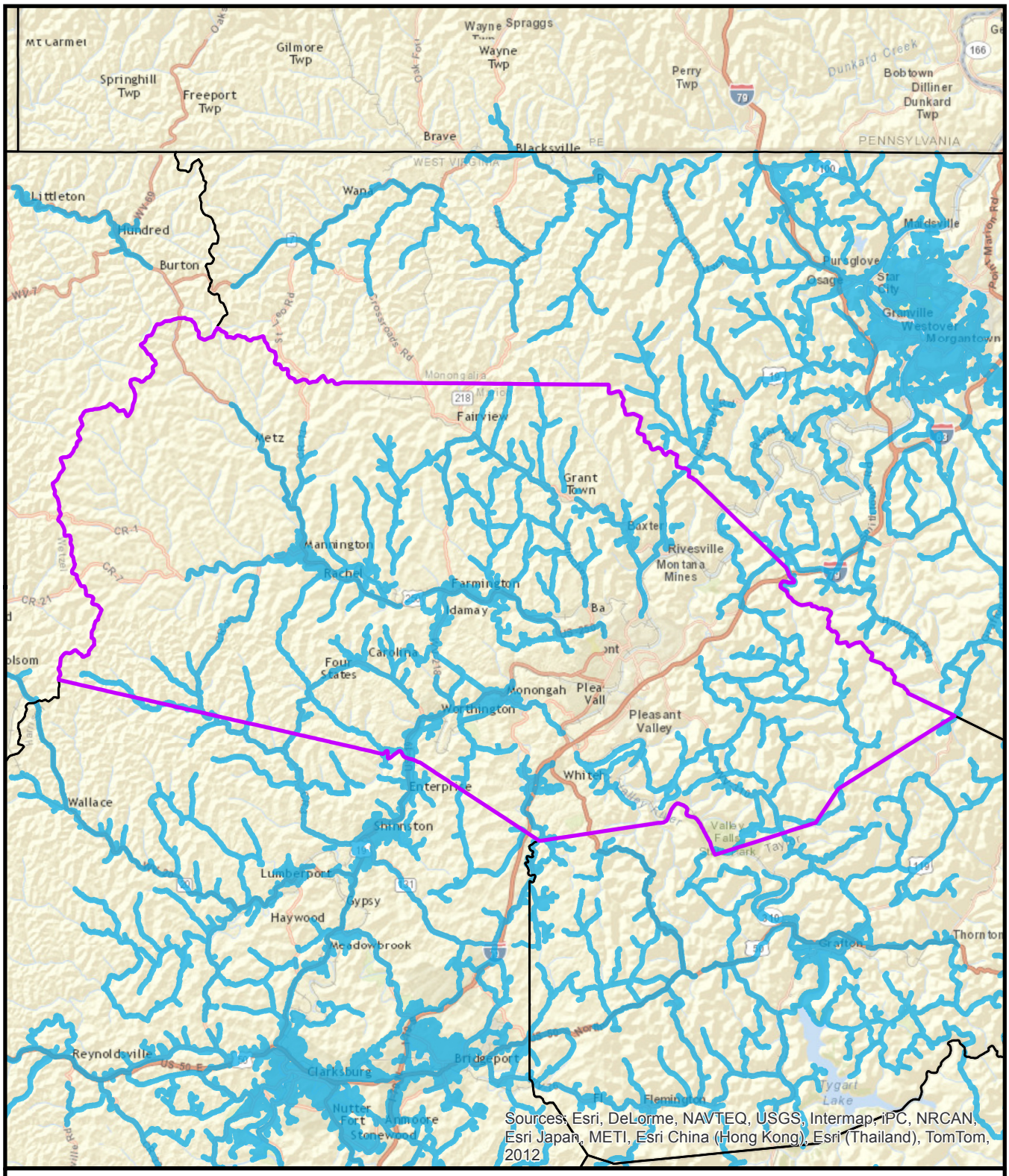
0 2 4 8 Miles

Served Area

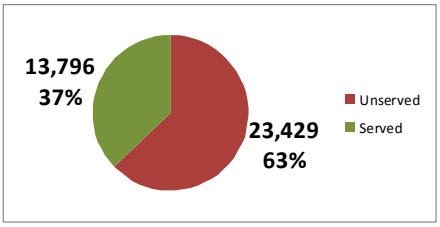
Sewer Service Area
Logan County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



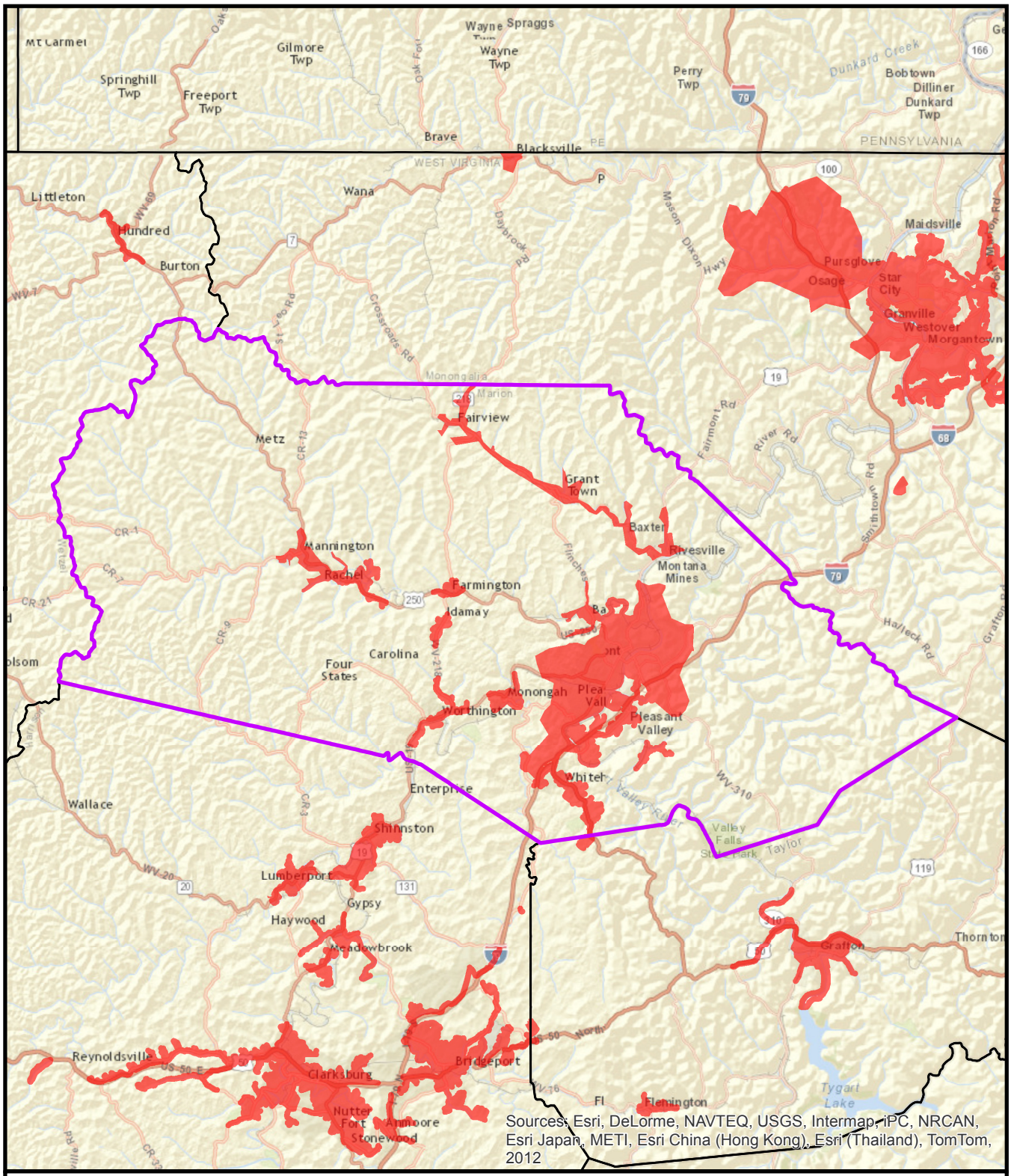
N

0 2 4 8 Miles

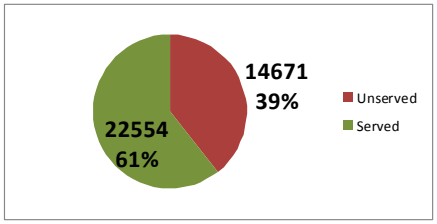
Served Area

Water Service Area
Marion County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

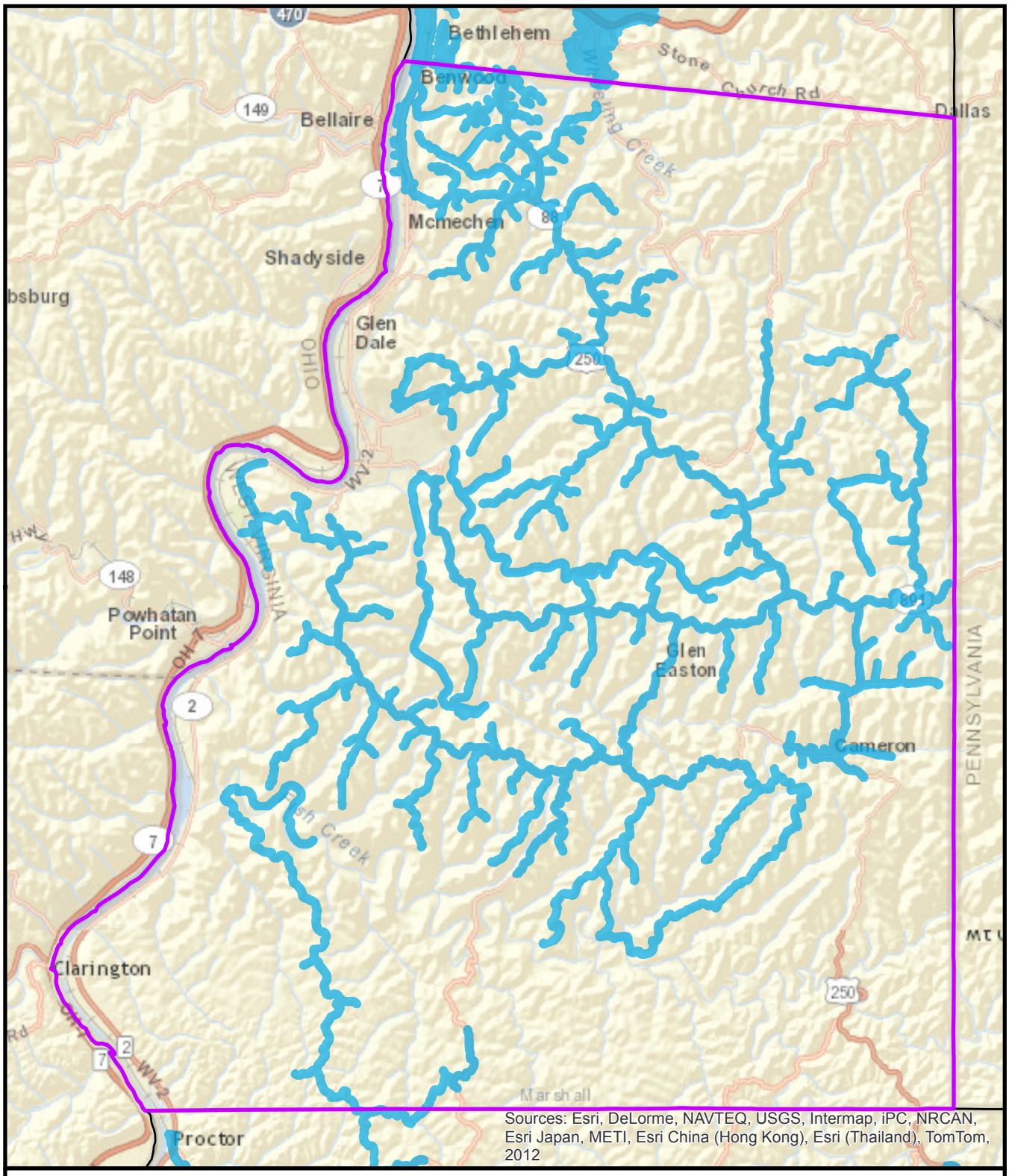
0 2 4 8 Miles

Served Area

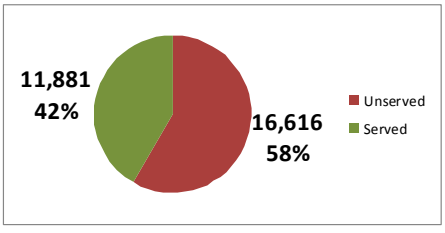
Sewer Service Area
Marion County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



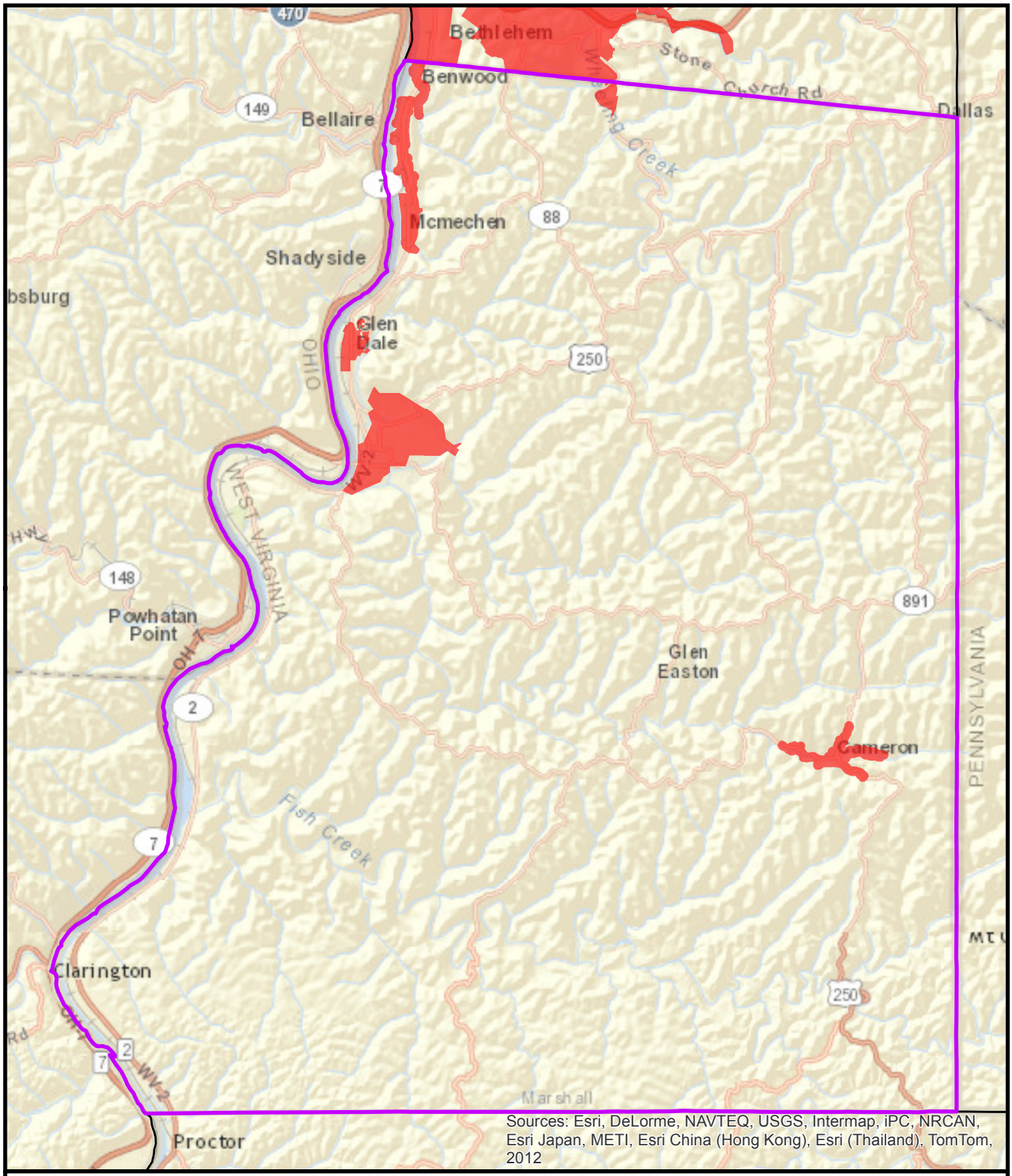
N

0 1.25 2.5 5 Miles

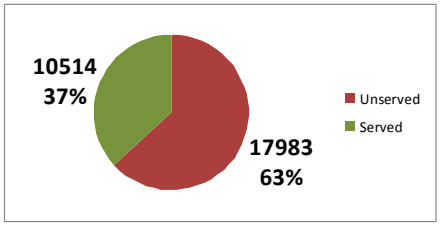
Served Area

Water Service Area
Marshall County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

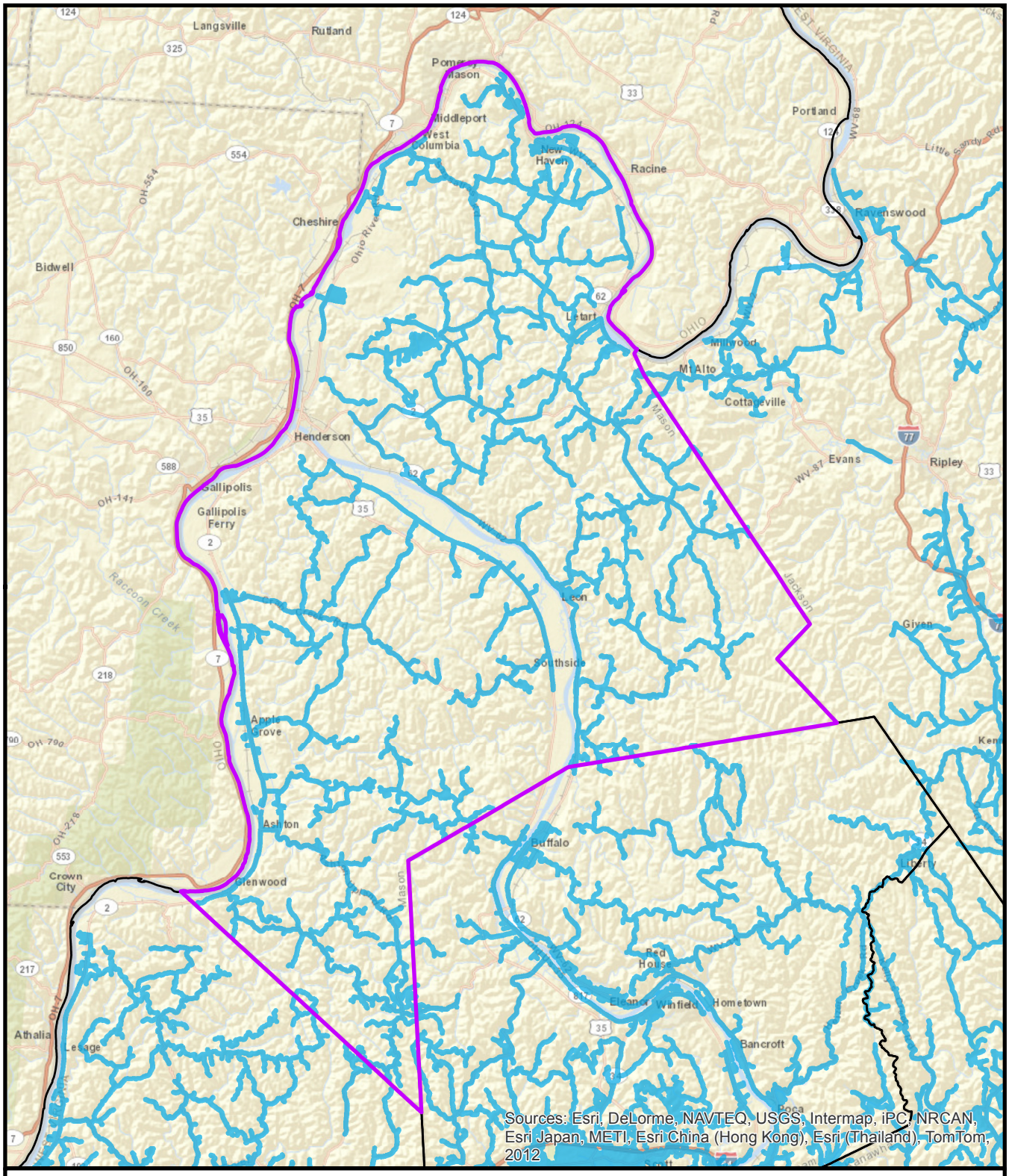
0 1.25 2.5 5 Miles

Served Area

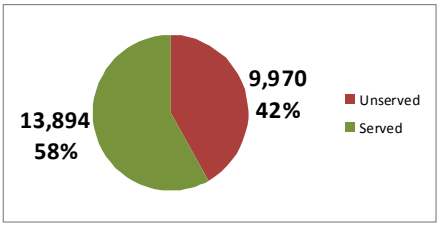
Sewer Service Area
Marshall County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

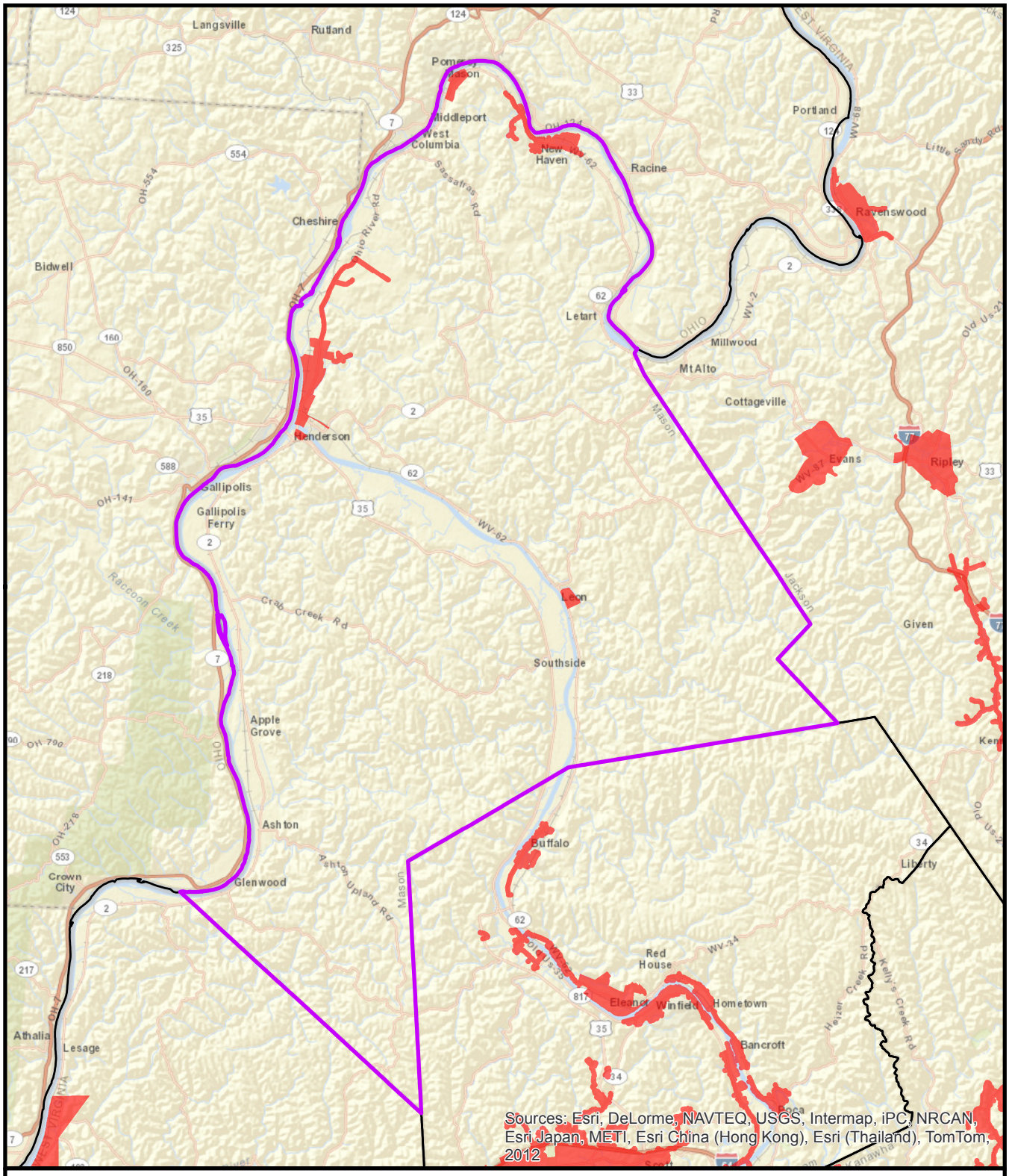
0 2.25 4.5 9 Miles

Served Area

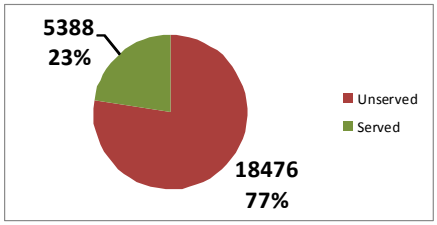
Water Service Area
Mason County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



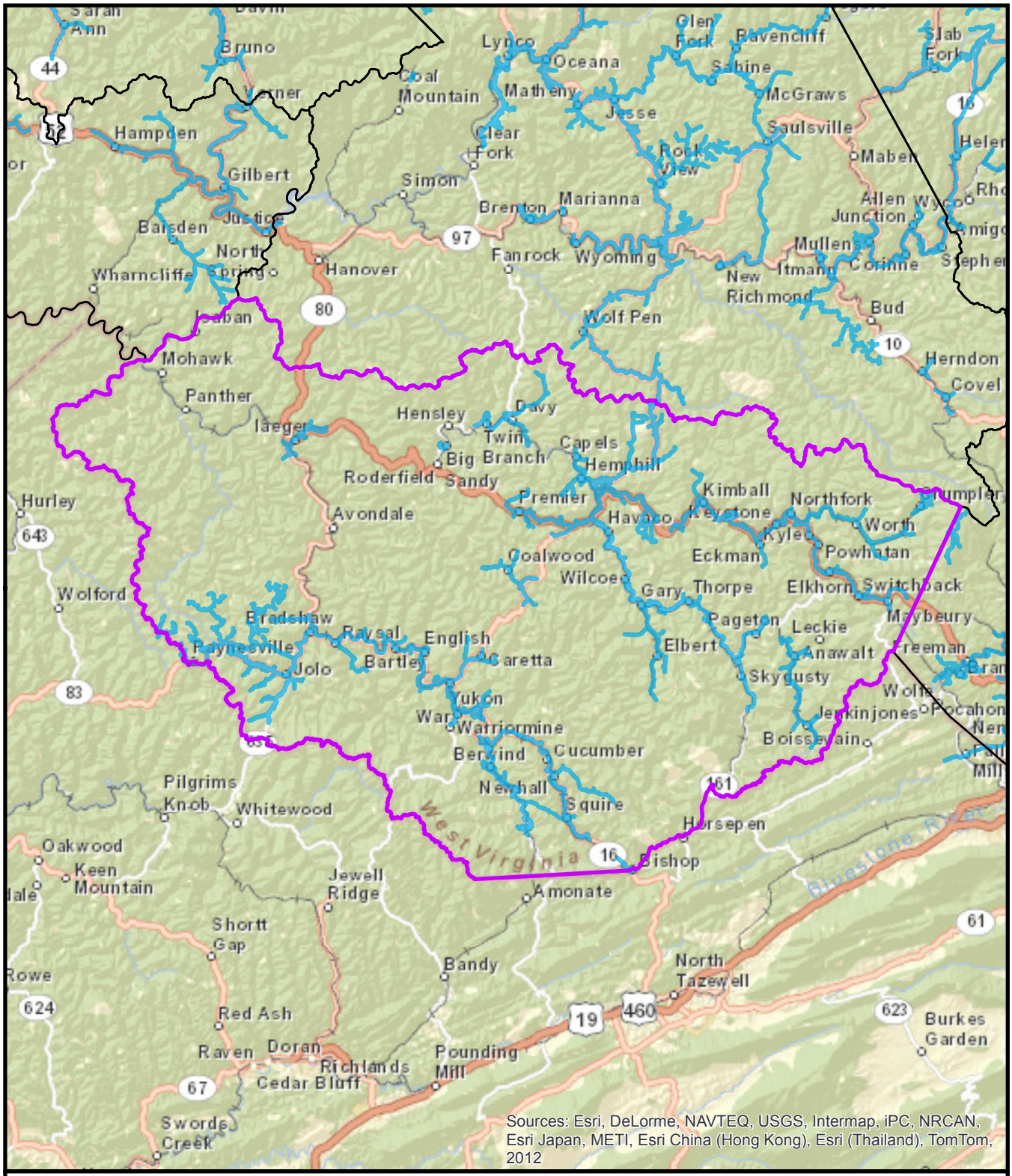
N

0 2.25 4.5 9 Miles

Served Area

Sewer Service Area
Mason County

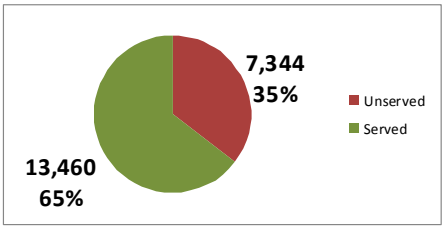
West Virginia
Infrastructure & Jobs Development Council



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Water Service Area
McDowell County

Distribution of Service to Structures



N

0 2.5 5 10 Miles

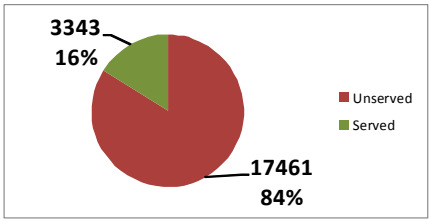
Served Area

West Virginia
Infrastructure & Jobs Development Council



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Distribution of Service to Structures



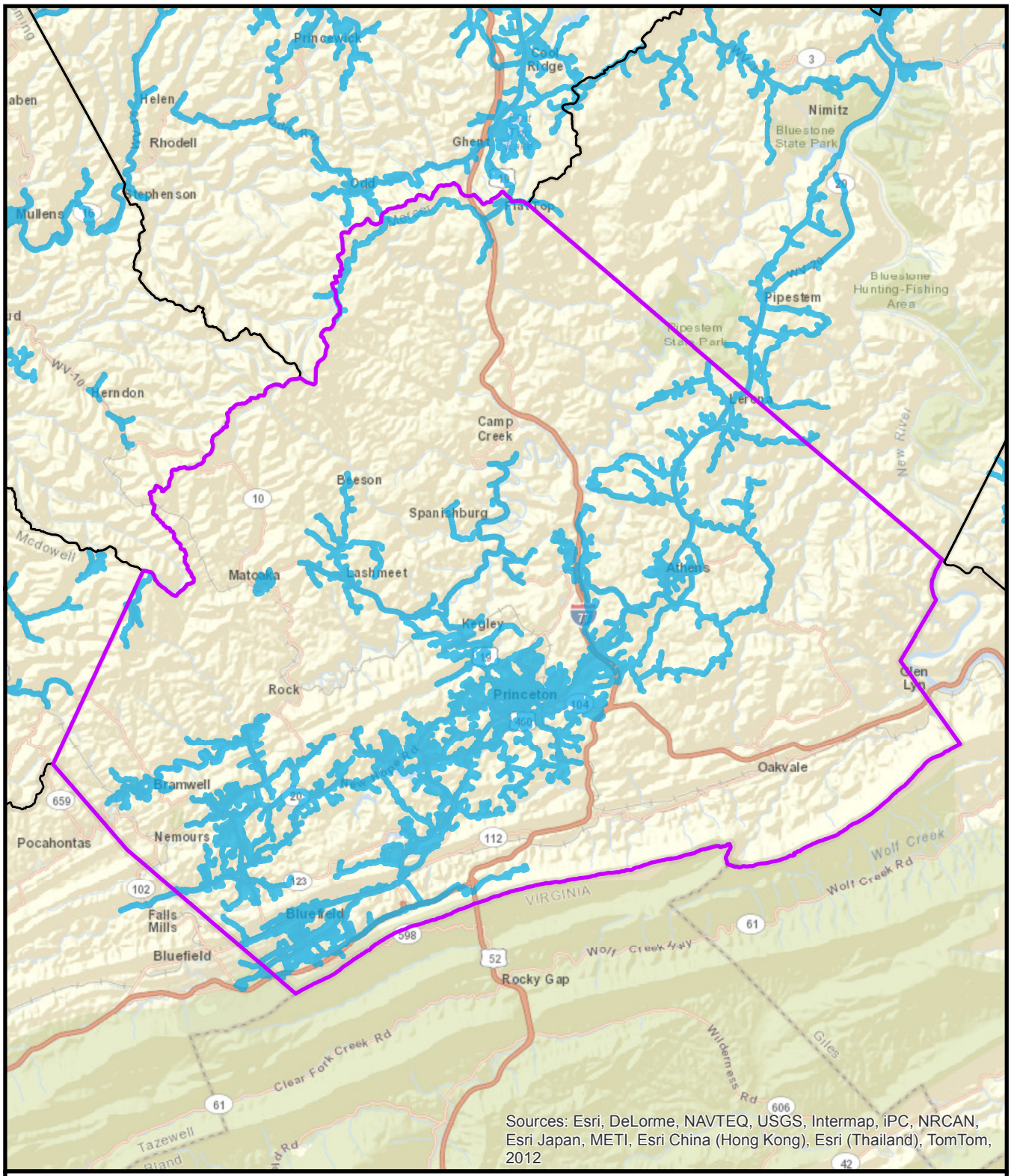
N

0 2.5 5 10 Miles

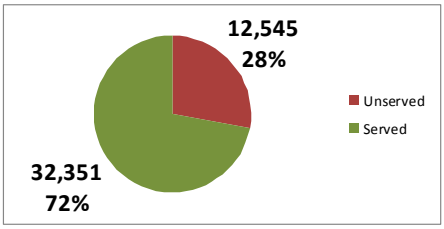
Served Area

Sewer Service Area
McDowell County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



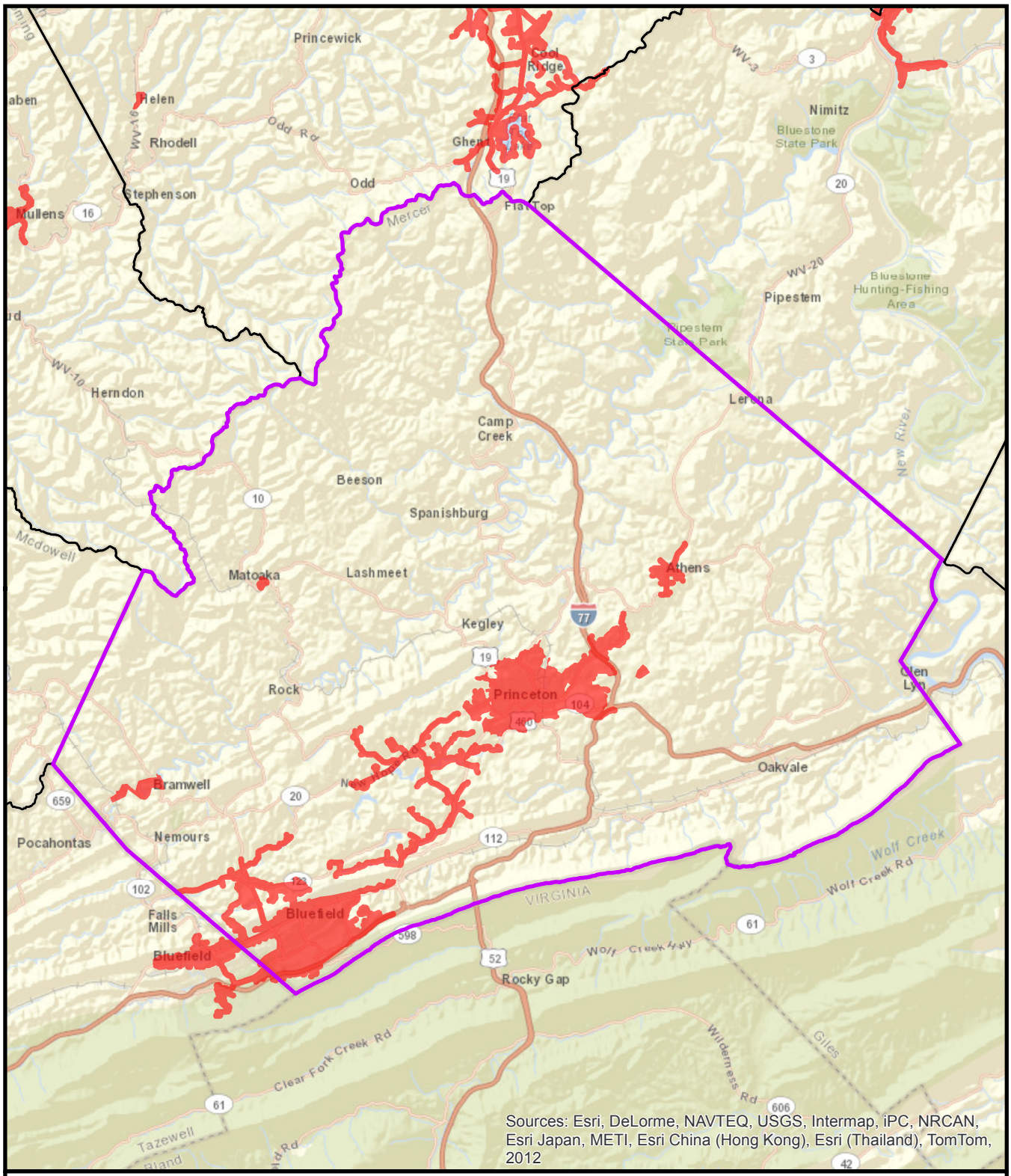
N

0 1.75 3.5 7 Miles

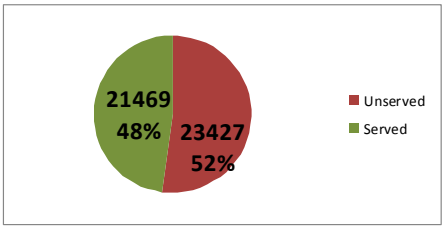
Served Area

Water Service Area
Mercer County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



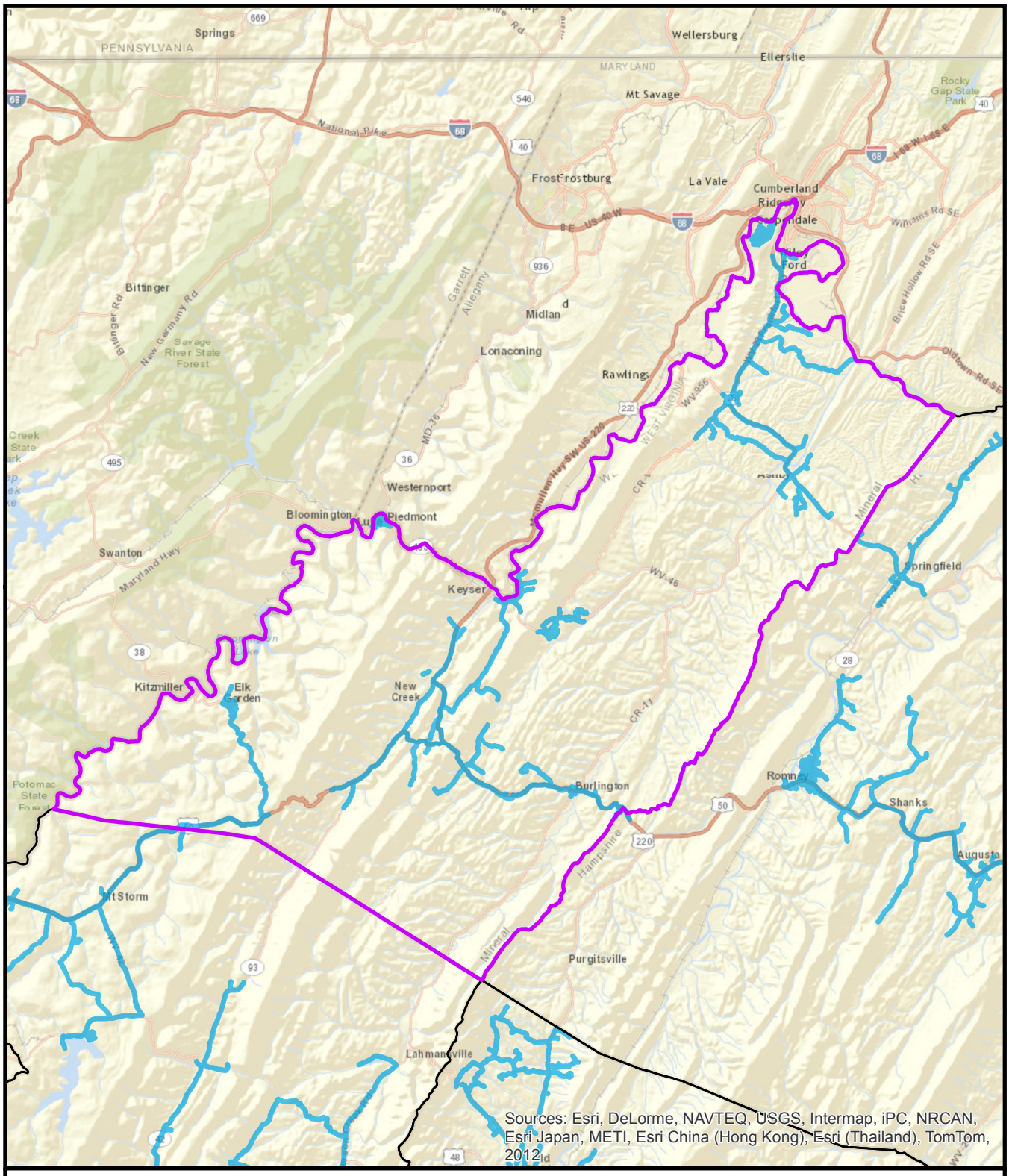
N

0 1.75 3.5 7 Miles

Served Area

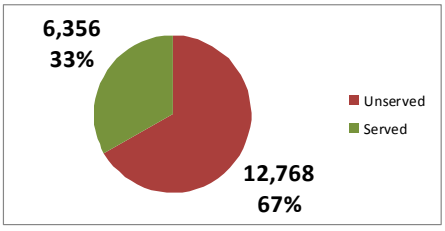
Sewer Service Area
Mercer County

West Virginia
Infrastructure & Jobs Development Council



Water Service Area
Mineral County

Distribution of Service to Structures

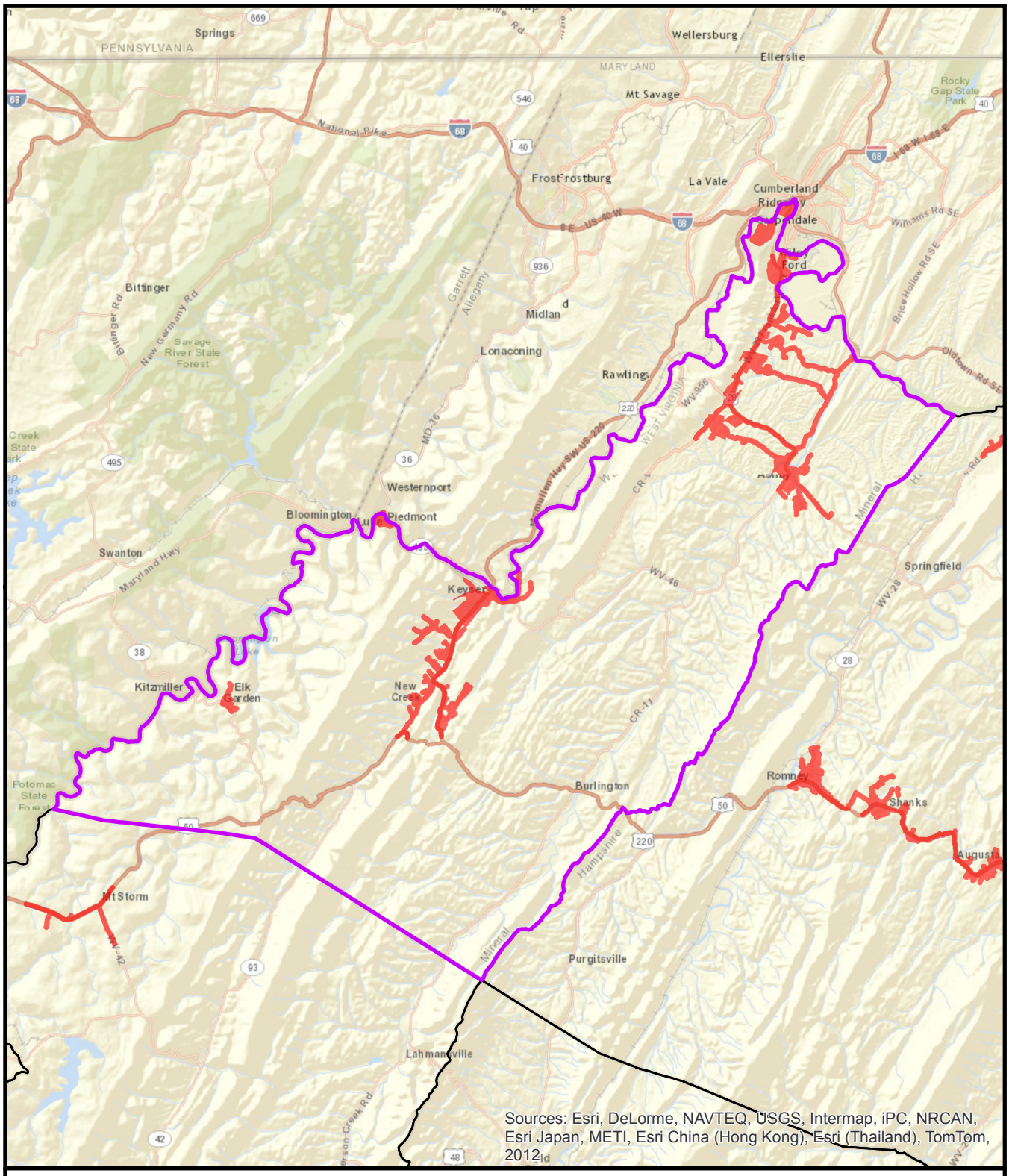


N

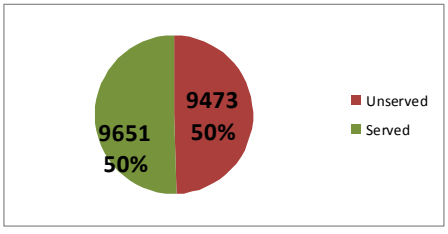
0 2.25 4.5 9 Miles

Served Area

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



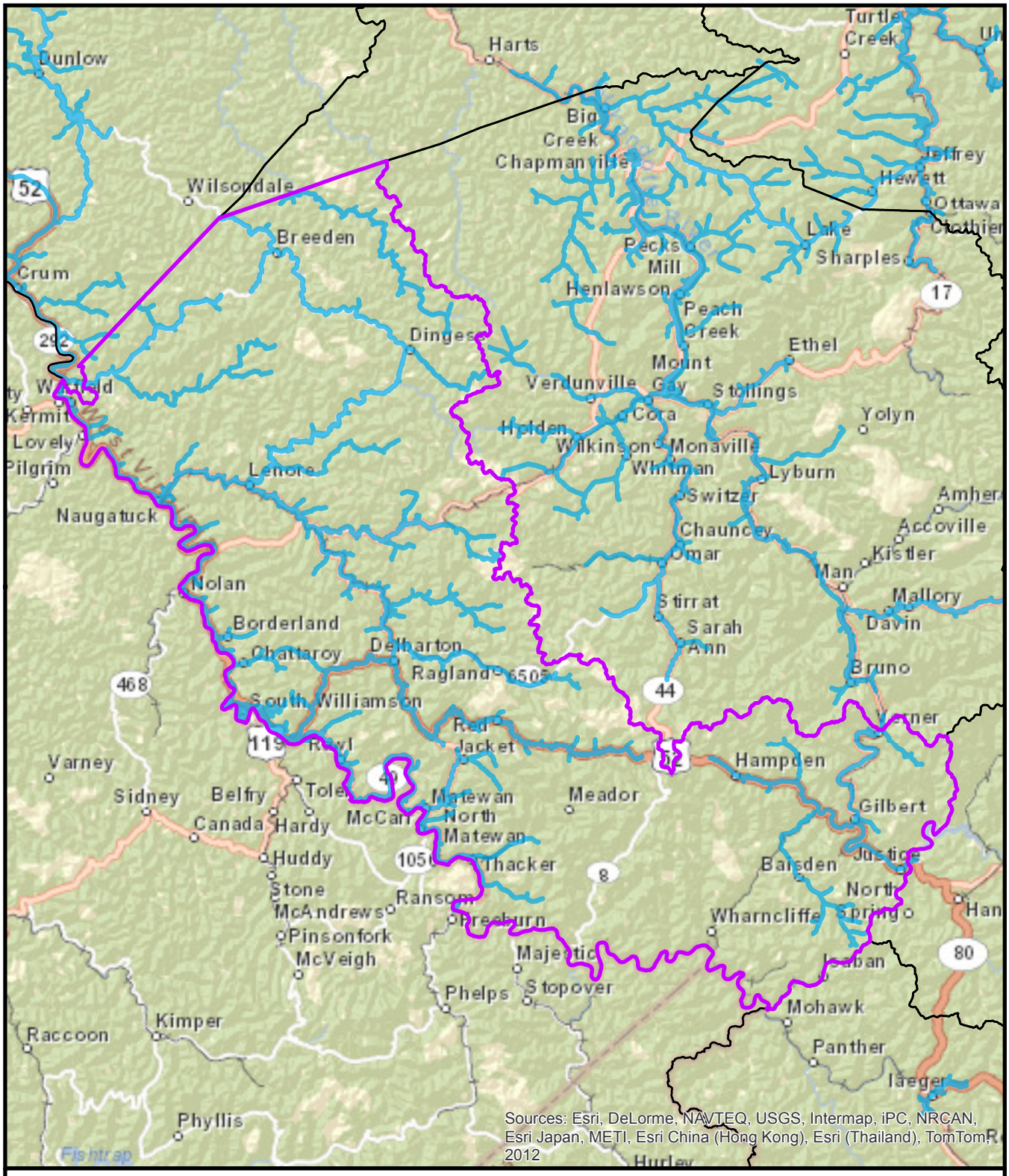
N

0 2.25 4.5 9 Miles

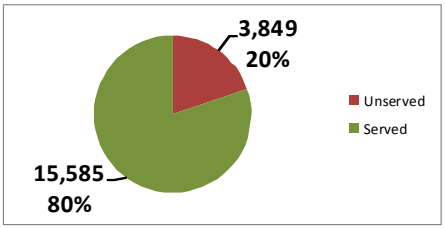
Served Area

Sewer Service Area
Mineral County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



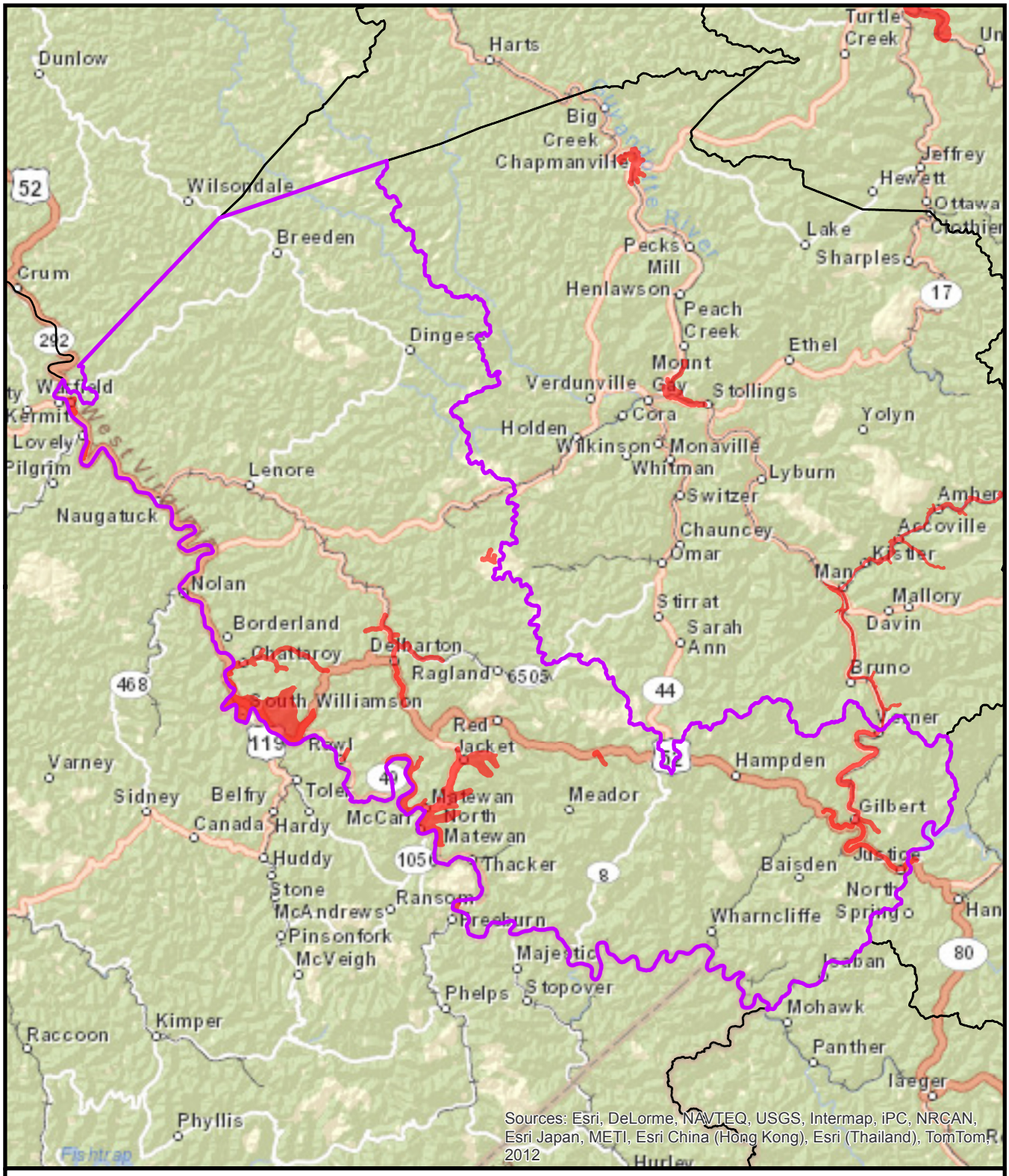
N

0 2.25 4.5 9 Miles

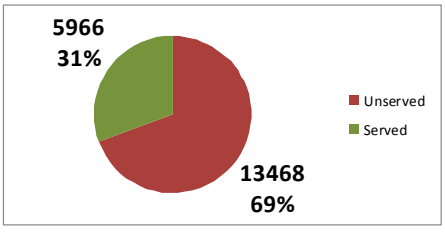
Served Area

Water Service Area
Mingo County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



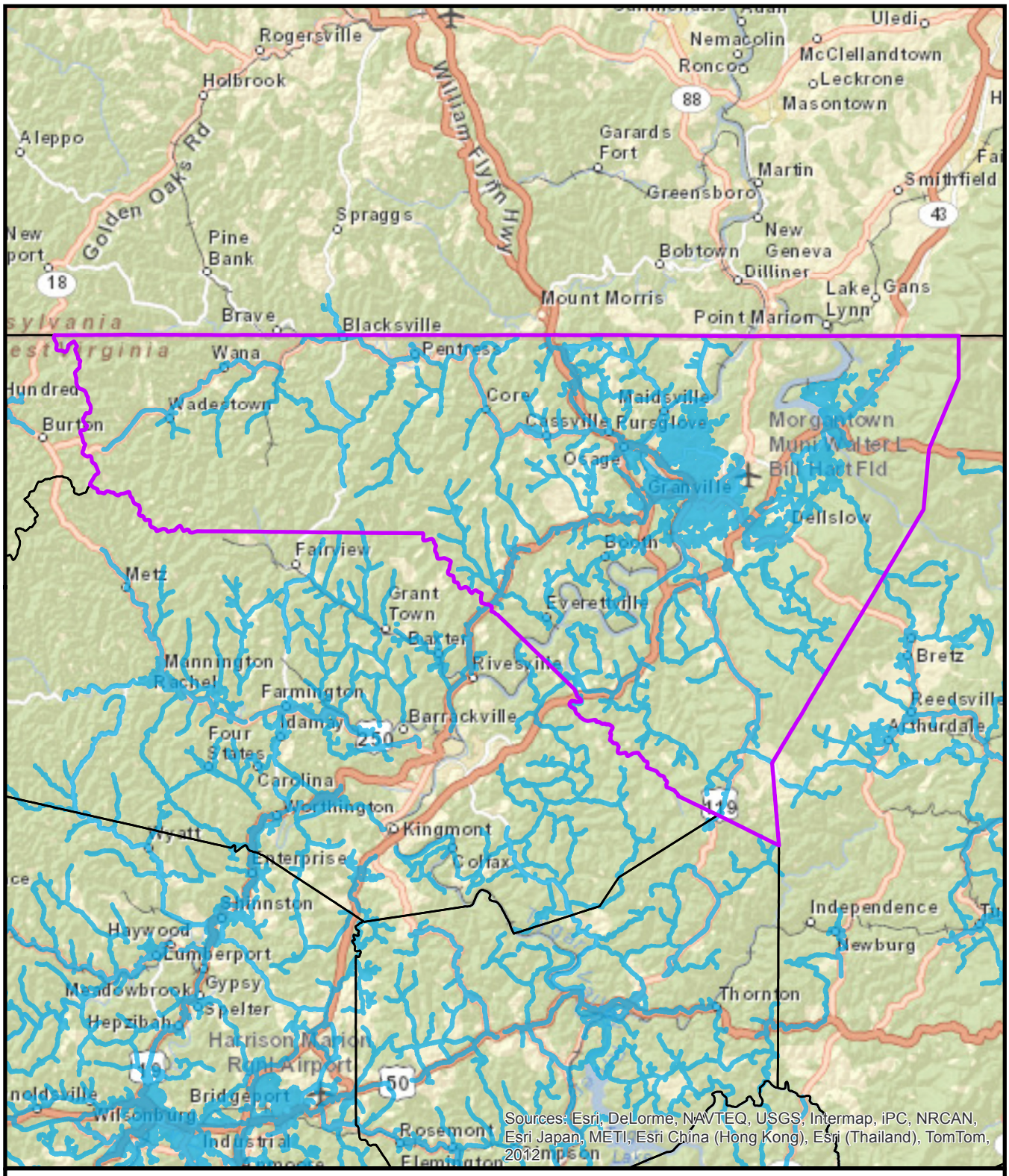
N

0 2.25 4.5 9 Miles

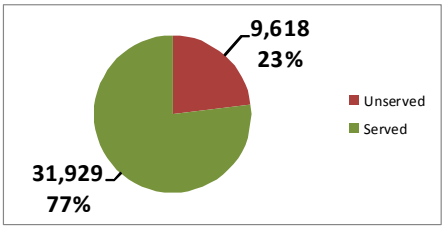
Served Area

Sewer Service Area
Mingo County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



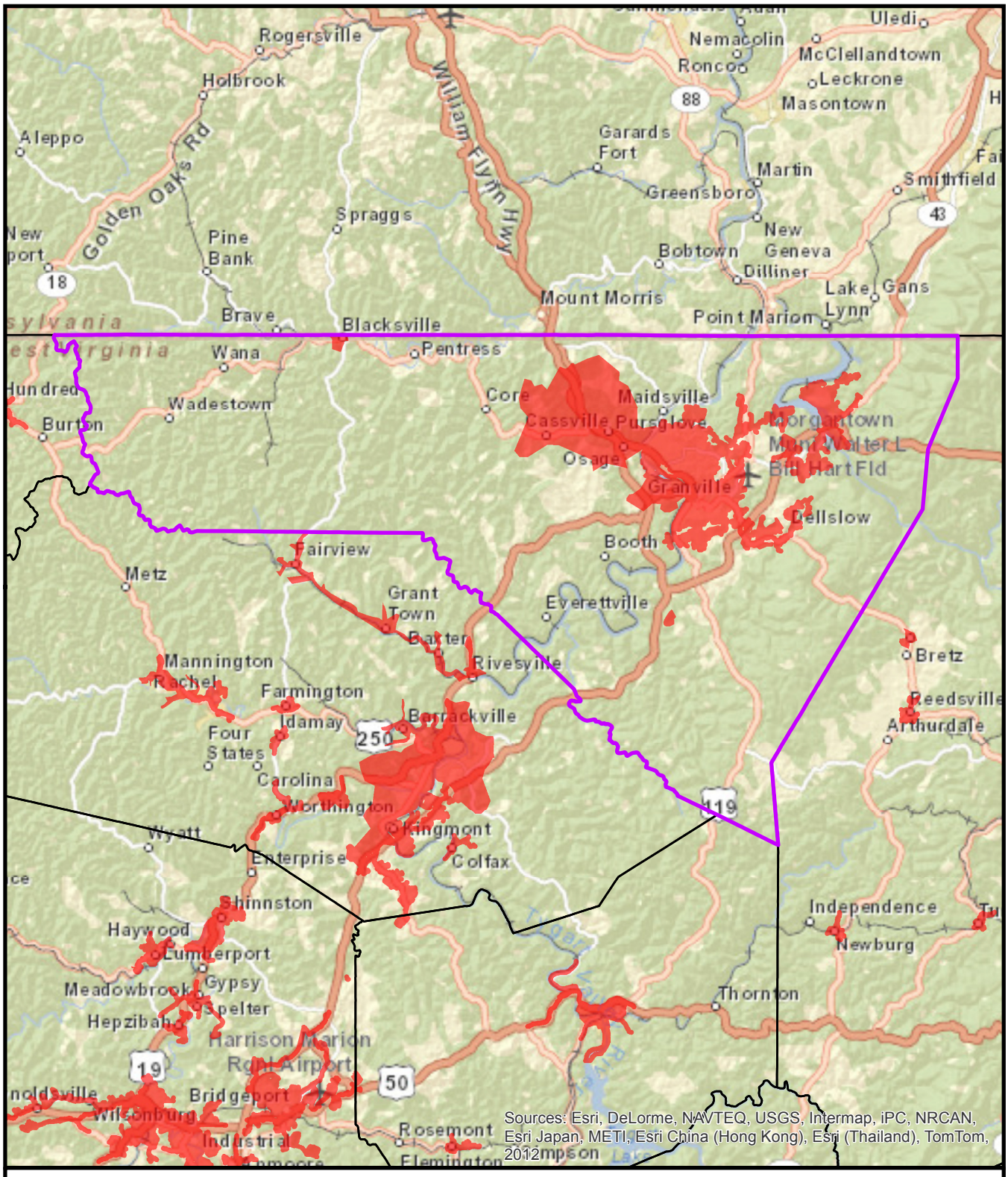
N

0 2.25 4.5 9 Miles

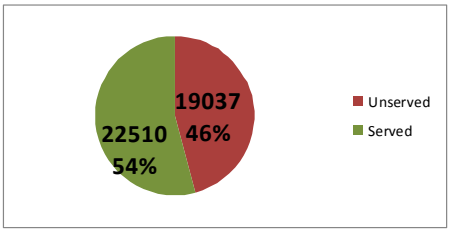
Served Area

Water Service Area
Monongalia County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



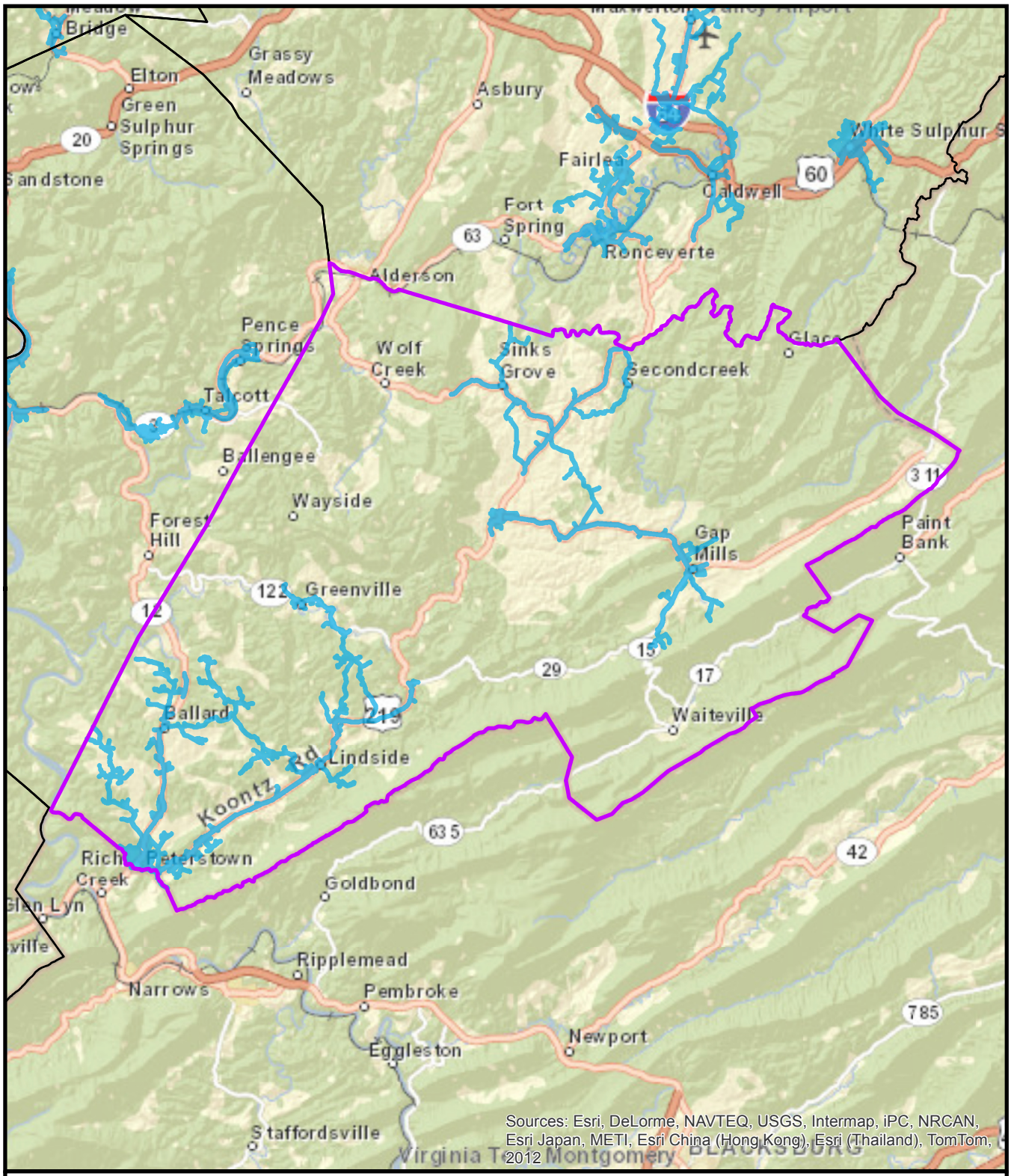
N

0 2.25 4.5 9 Miles

Served Area

Sewer Service Area
Monongalia County

West Virginia
Infrastructure & Jobs Development Council



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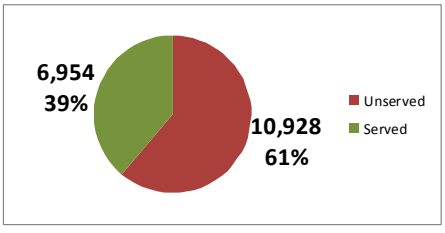


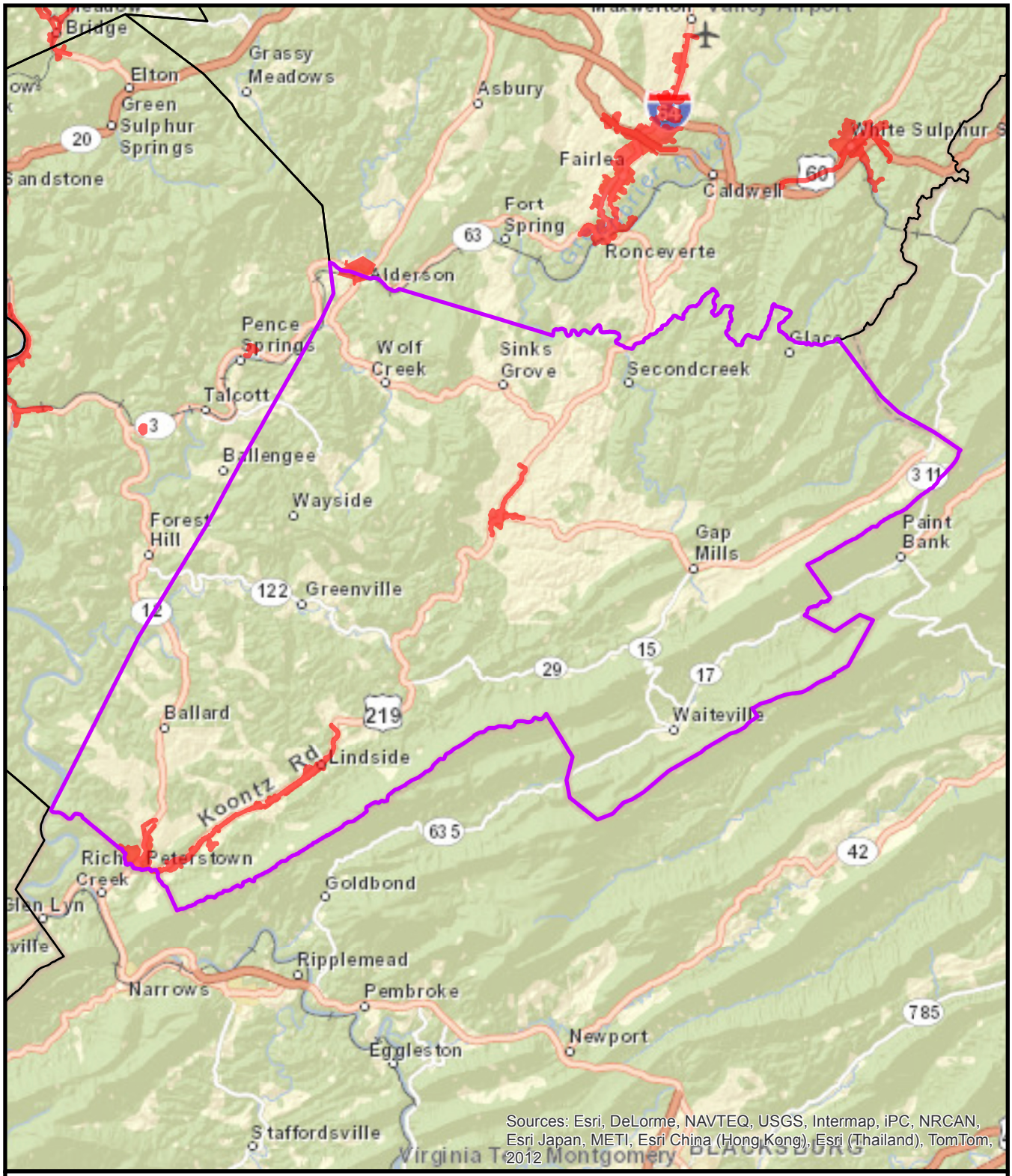
N

0 2.25 4.5 9 Miles

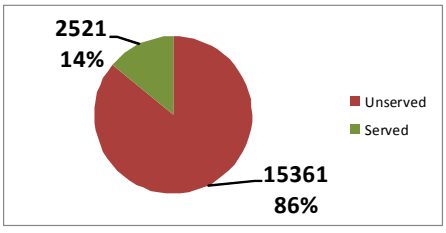
Served Area

Water Service Area
Monroe County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



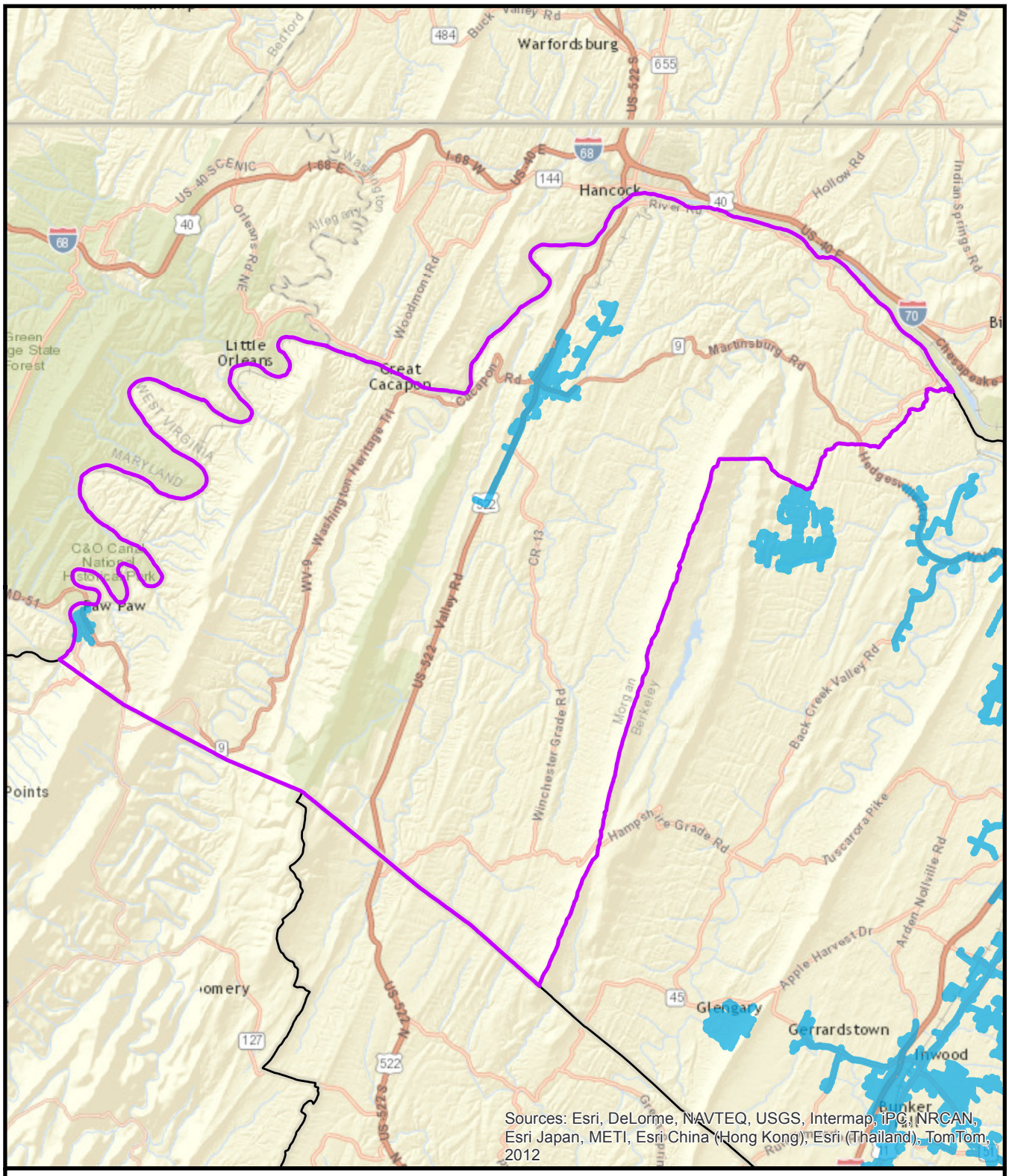
N

0 2.25 4.5 9 Miles

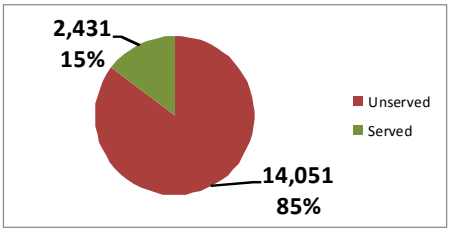
Served Area

Sewer Service Area
Monroe County

West Virginia
Infrastructure & Jobs
Development Council



Distribution of Service to Structures



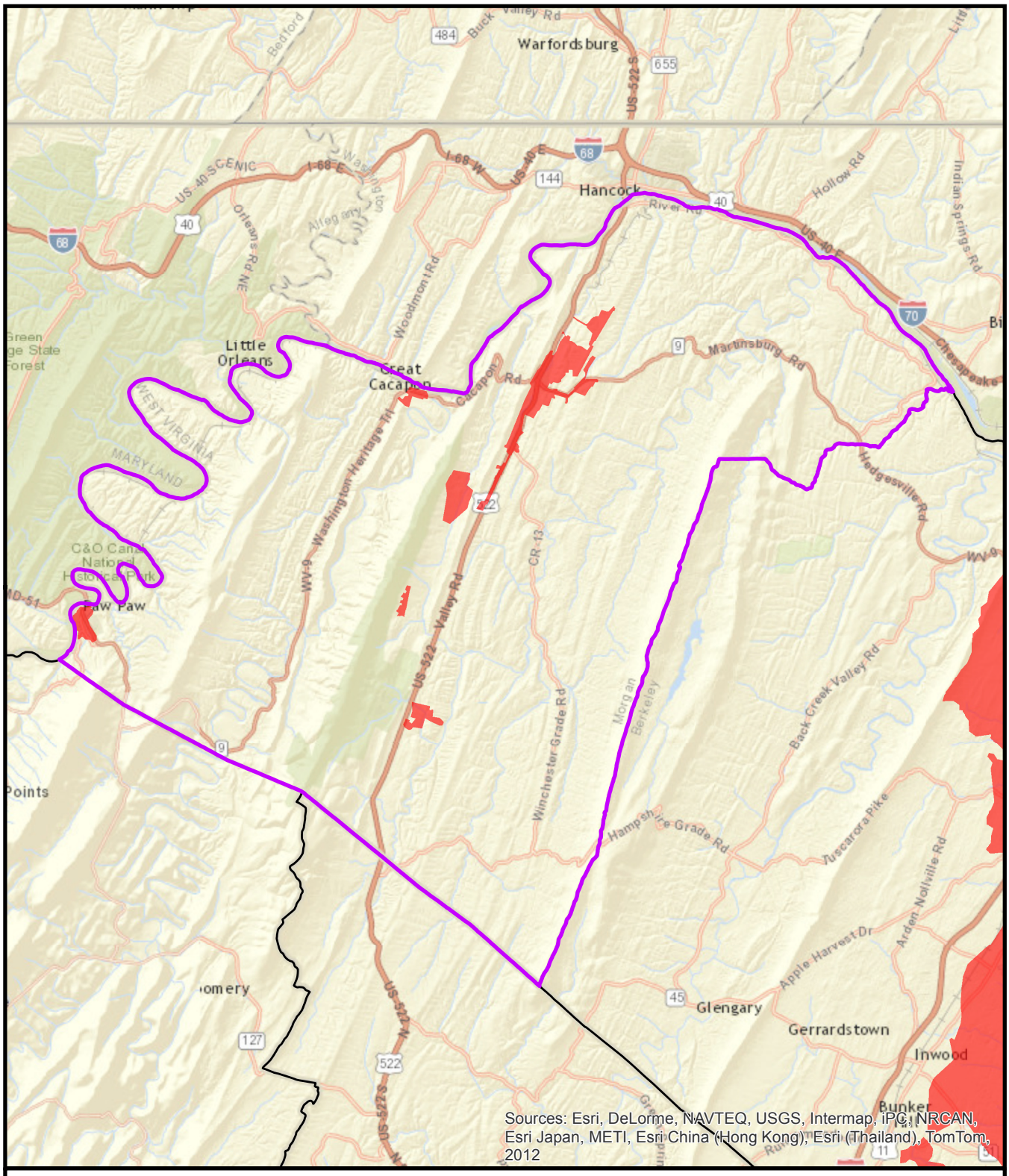
N

0 1.5 3 6 Miles

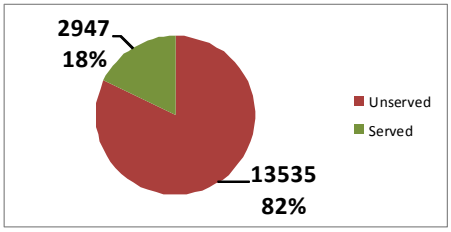
Served Area

Water Service Area
Morgan County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



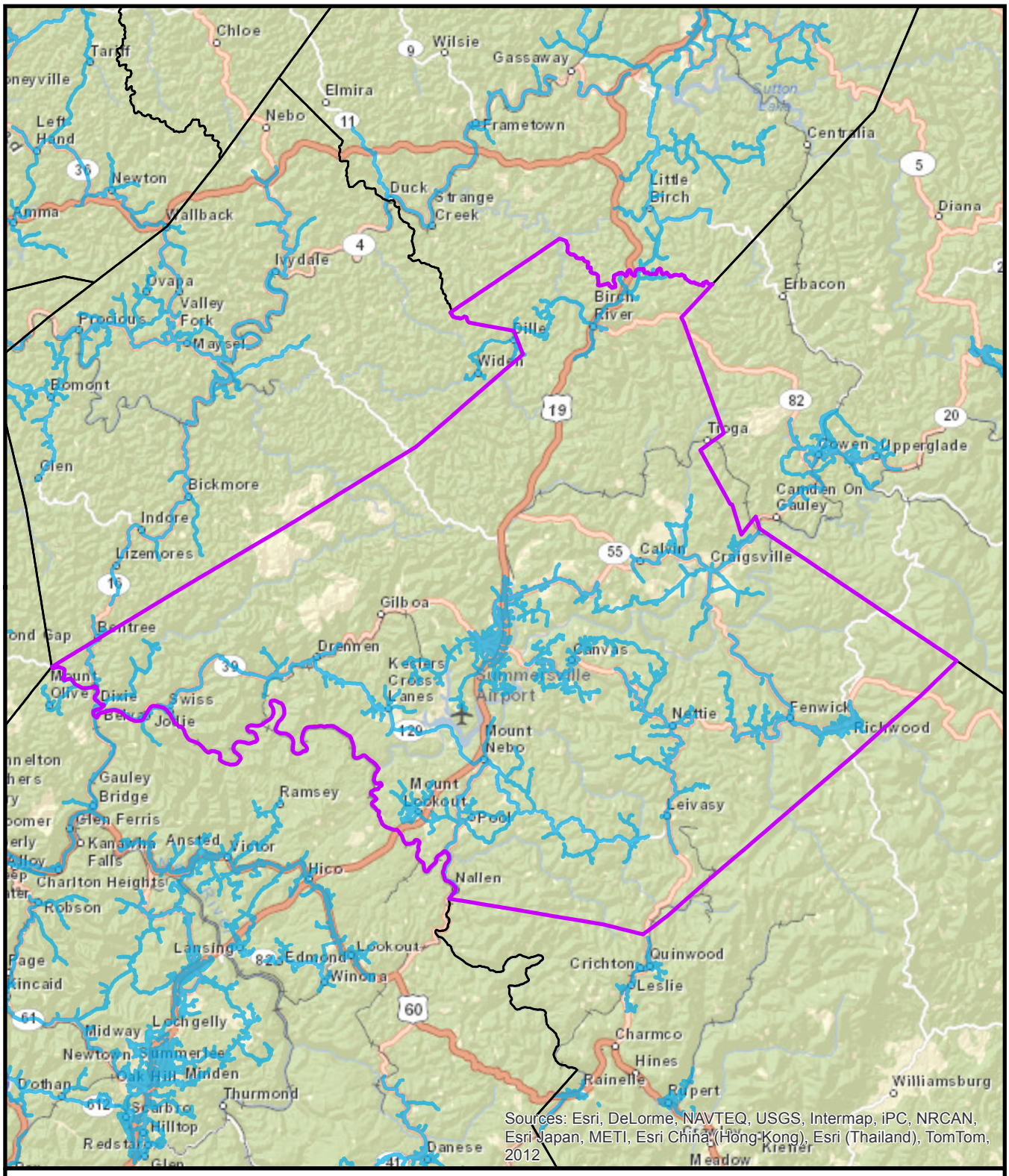
N

0 1.5 3 6 Miles

Served Area

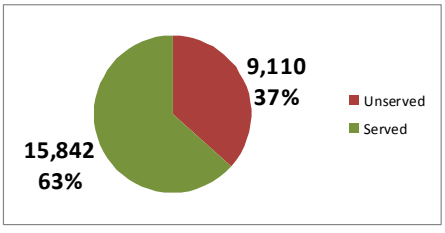
Sewer Service Area
Morgan County

West Virginia
Infrastructure & Jobs Development Council



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Distribution of Service to Structures



N

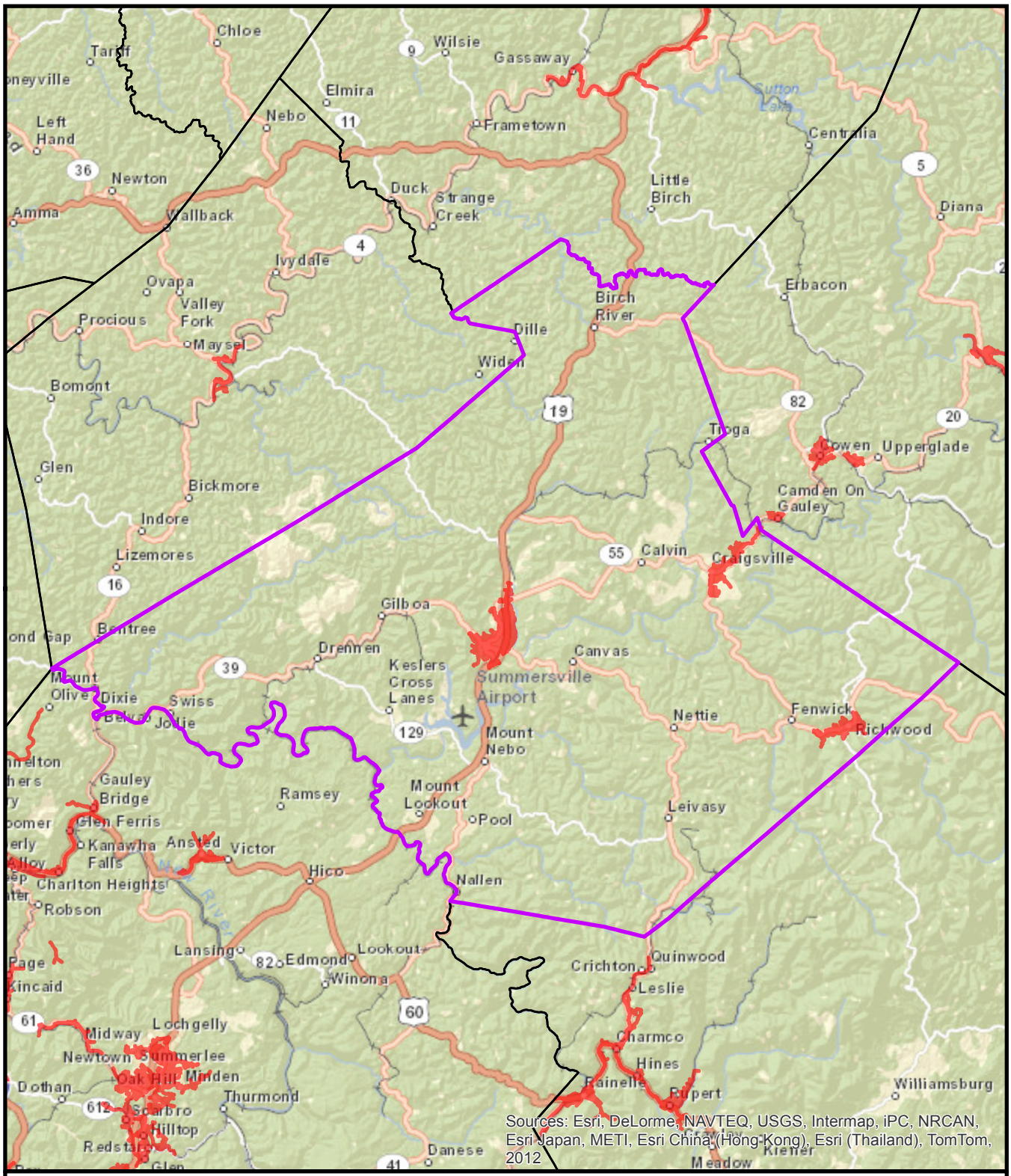
0 2.75 5.5 11 Miles

Served Area

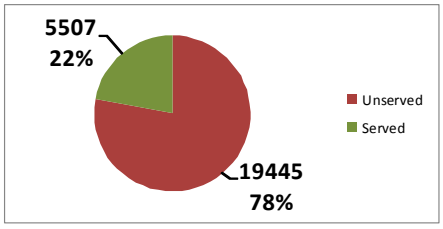
Water Service Area
Nicholas County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



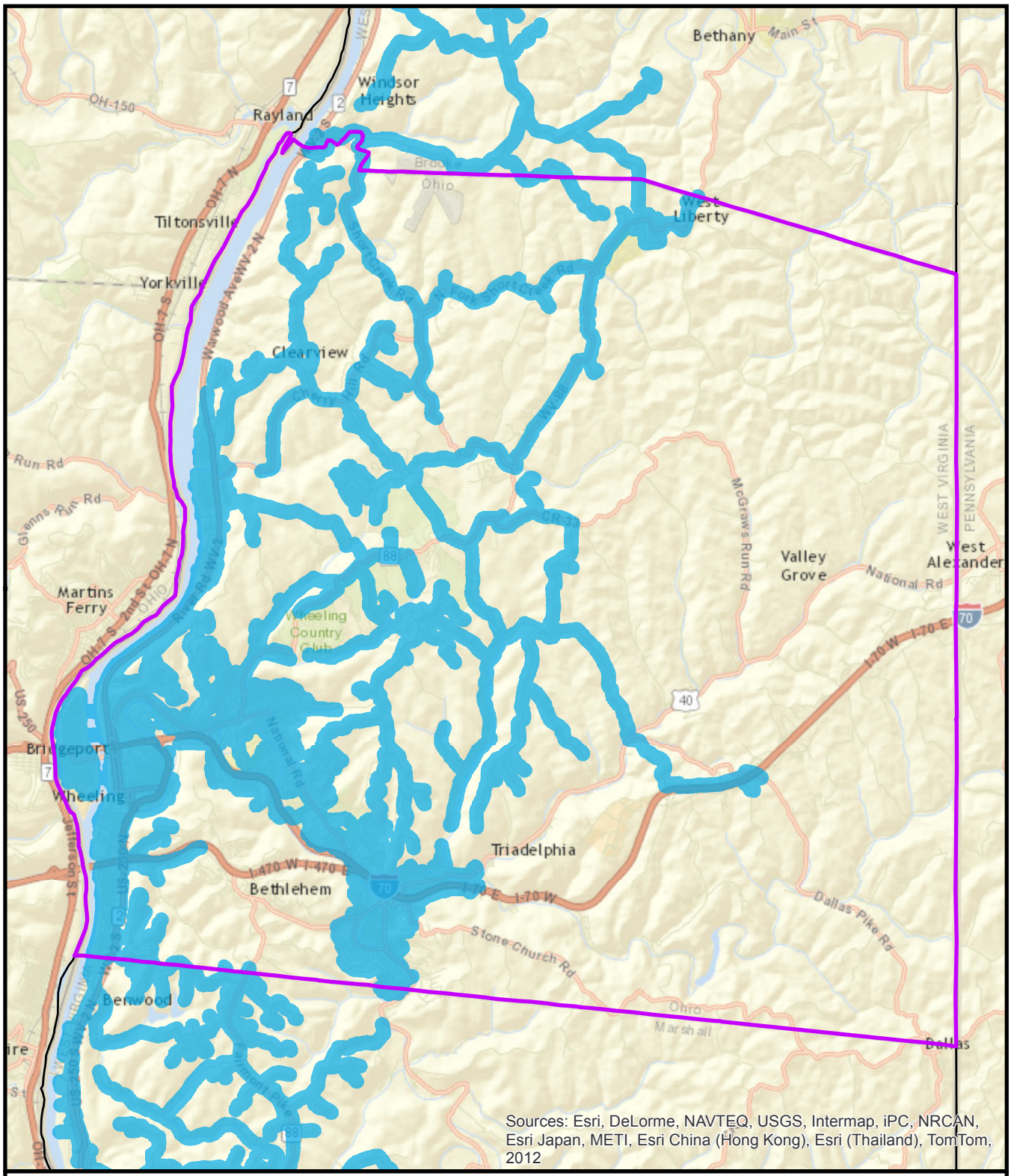
N

0 2.75 5.5 11 Miles

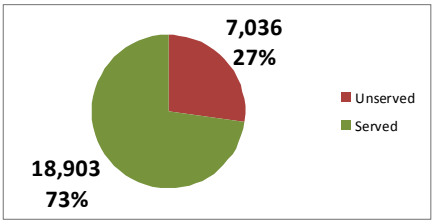
Served Area

Sewer Service Area
Nicholas County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

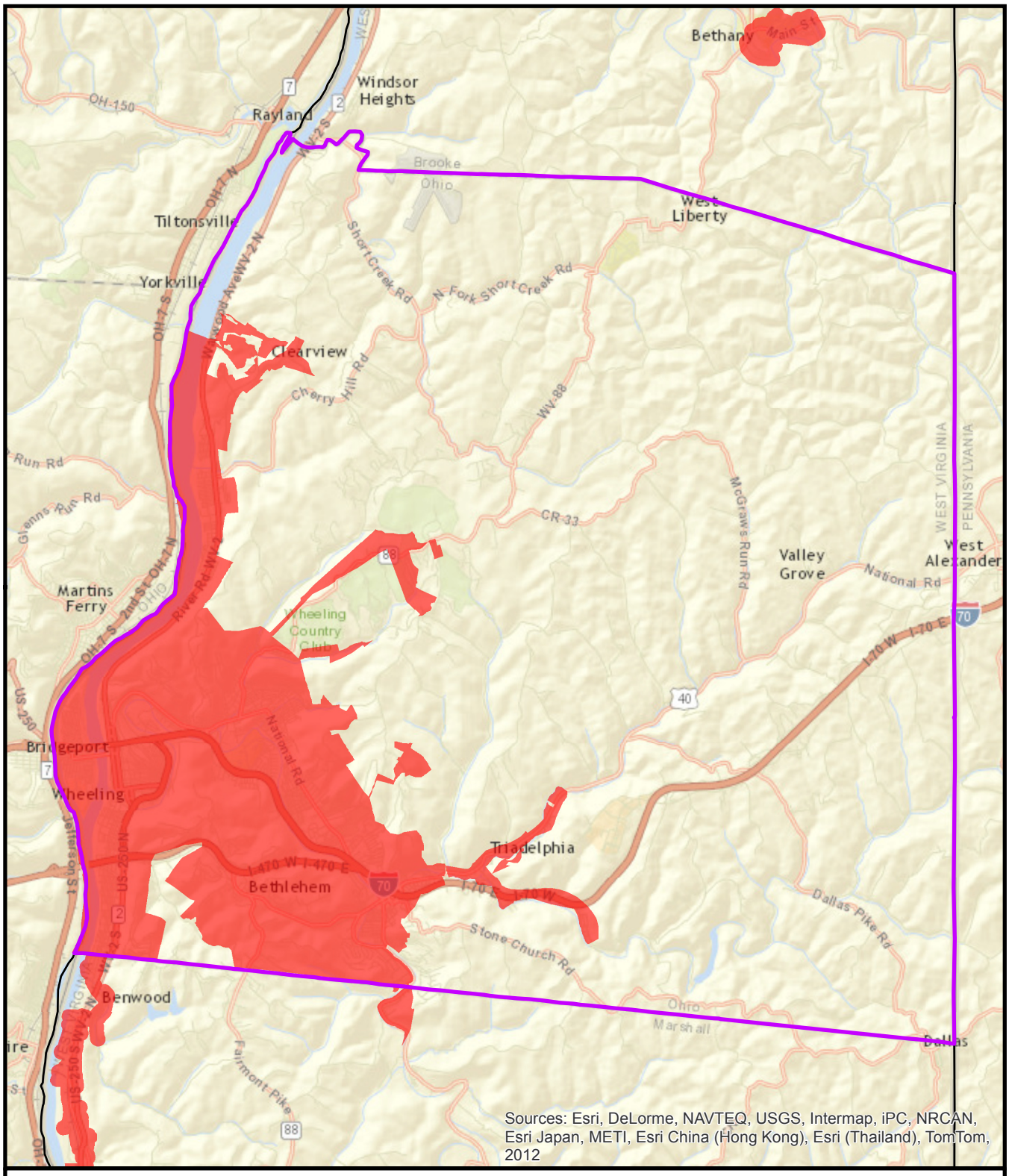
0 0.75 1.5 3 Miles

Served Area

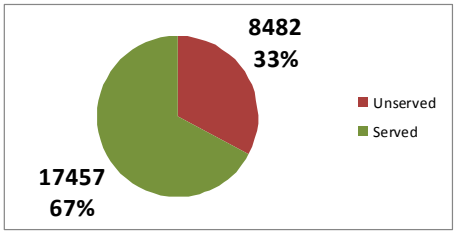
Water Service Area
Ohio County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



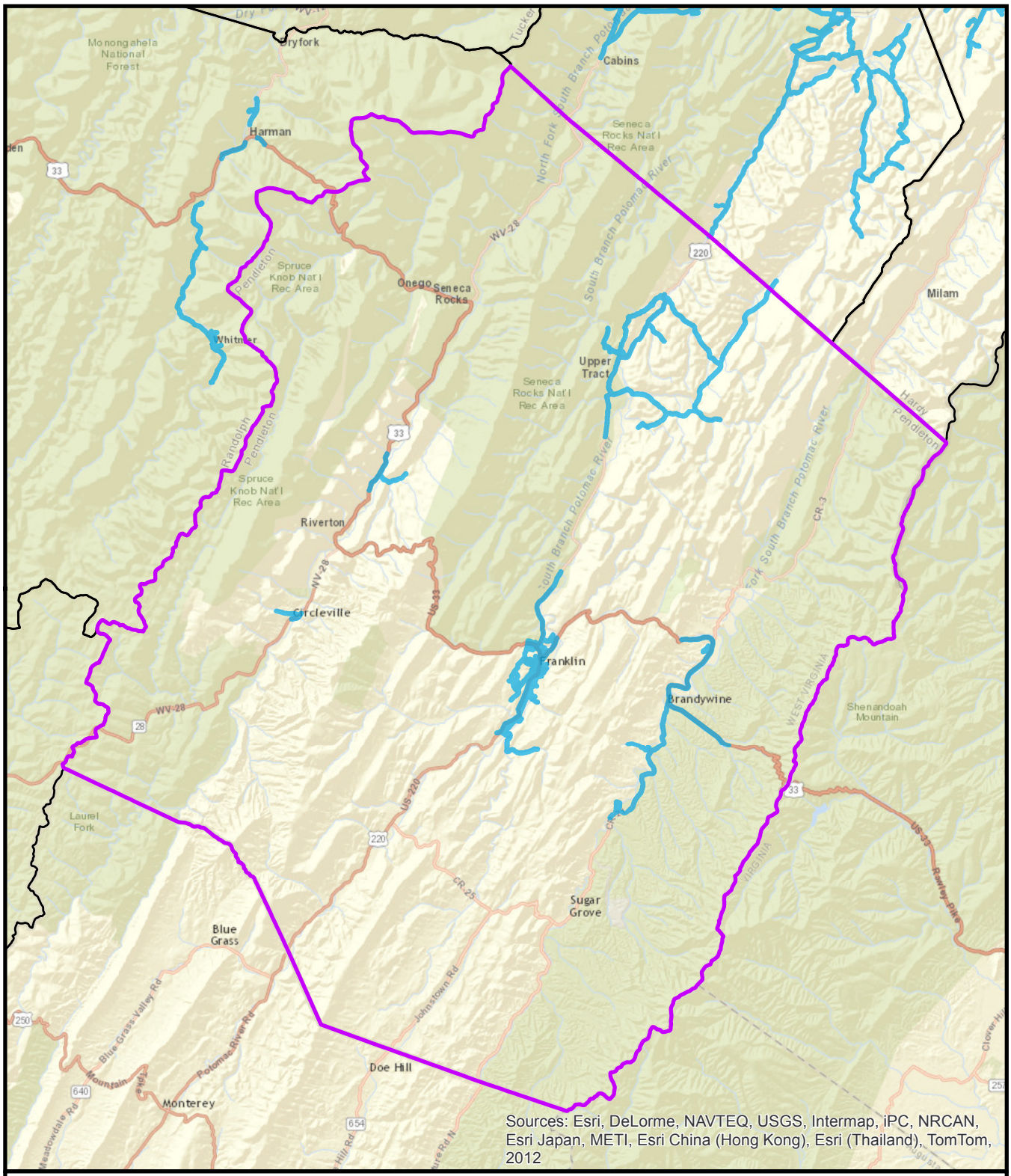
N

0 0.75 1.5 3 Miles

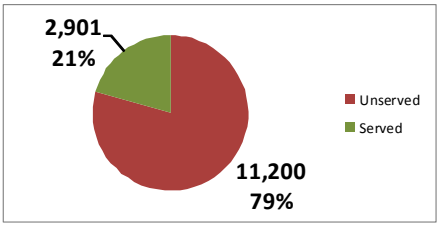
Served Area

Sewer Service Area
Ohio County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



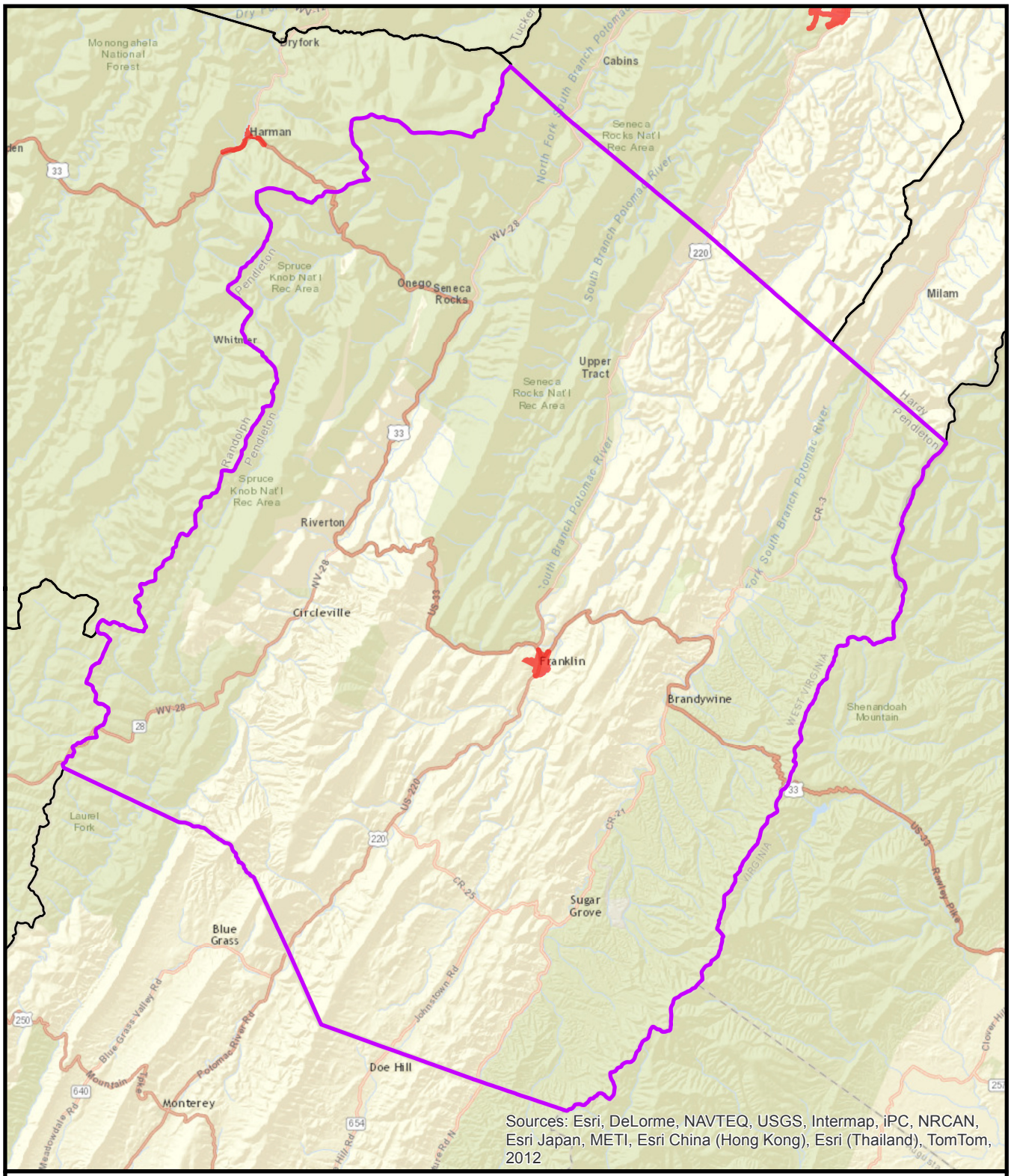
N

0 2.25 4.5 9 Miles

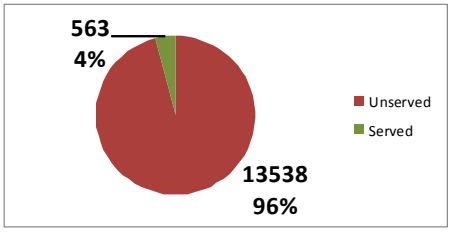
Served Area

Water Service Area
Pendleton County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



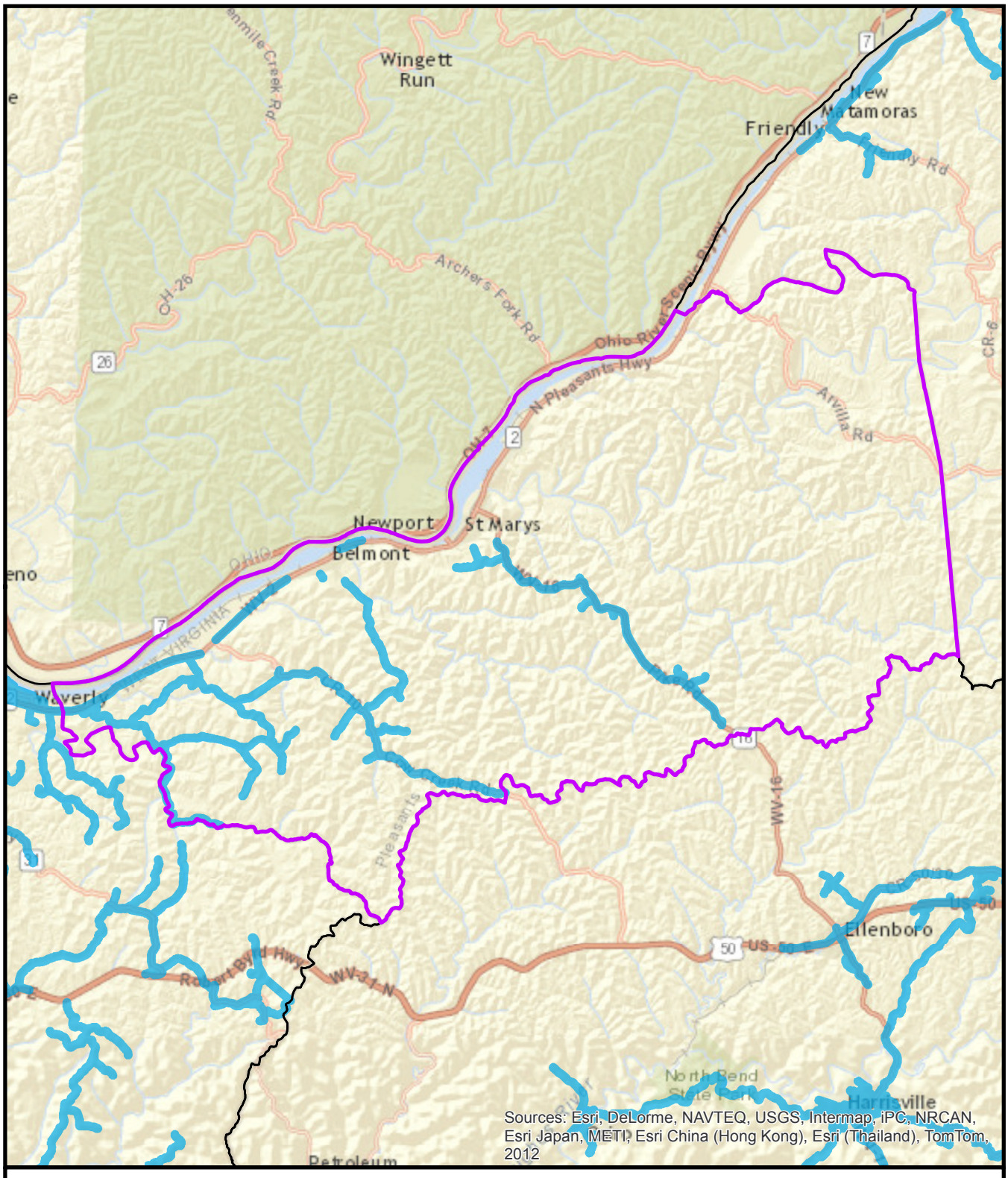
N

0 2.25 4.5 9 Miles

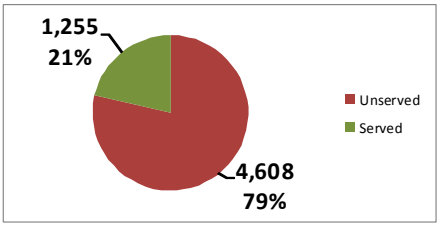
Served Area

Sewer Service Area
Pendleton County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



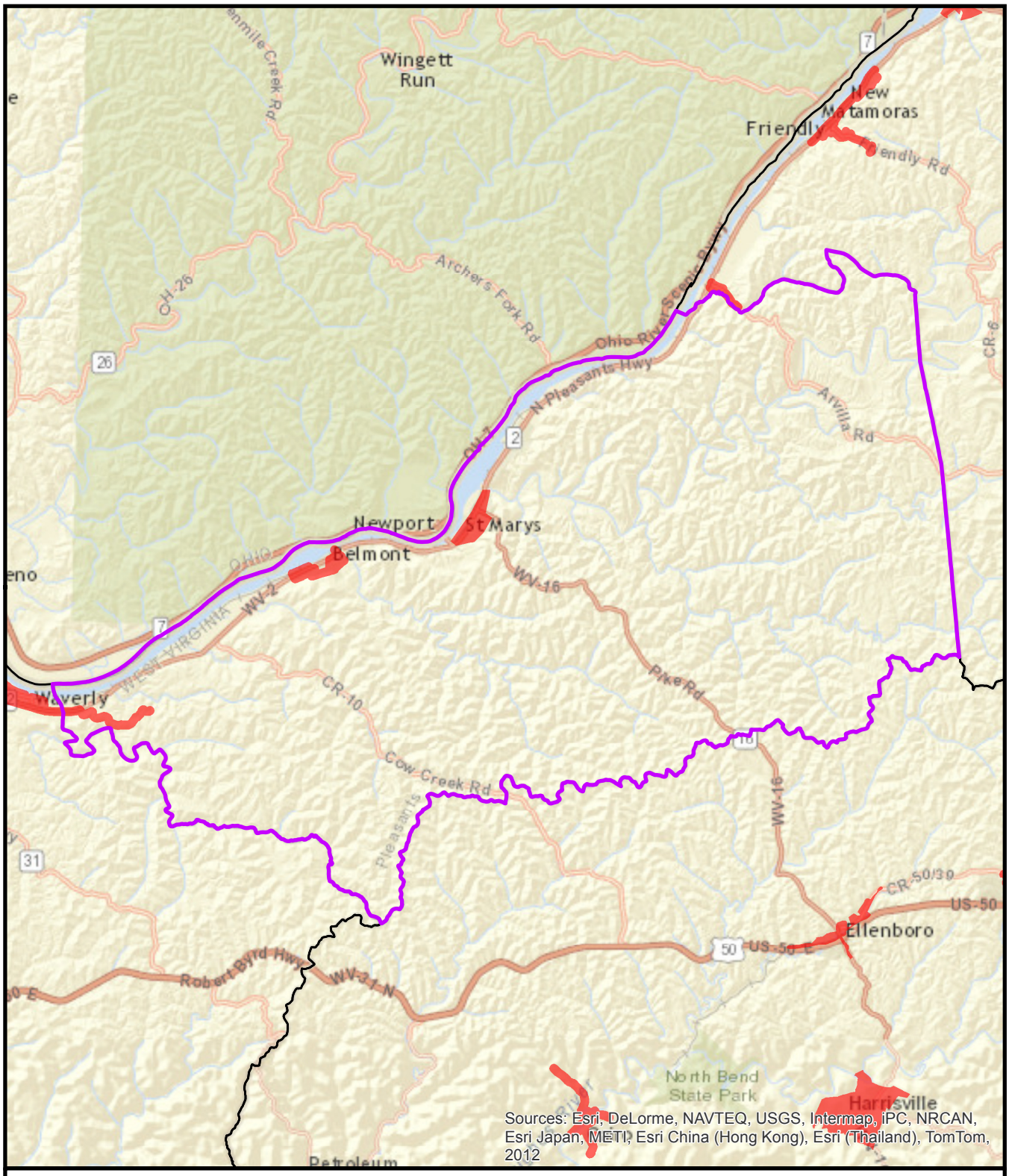
N

0 1.25 2.5 5 Miles

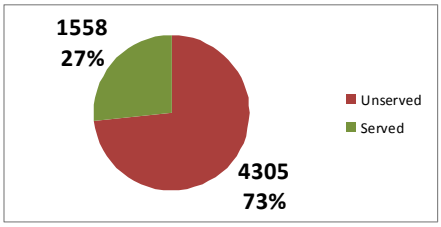
Served Area

Water Service Area
Pleasants County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



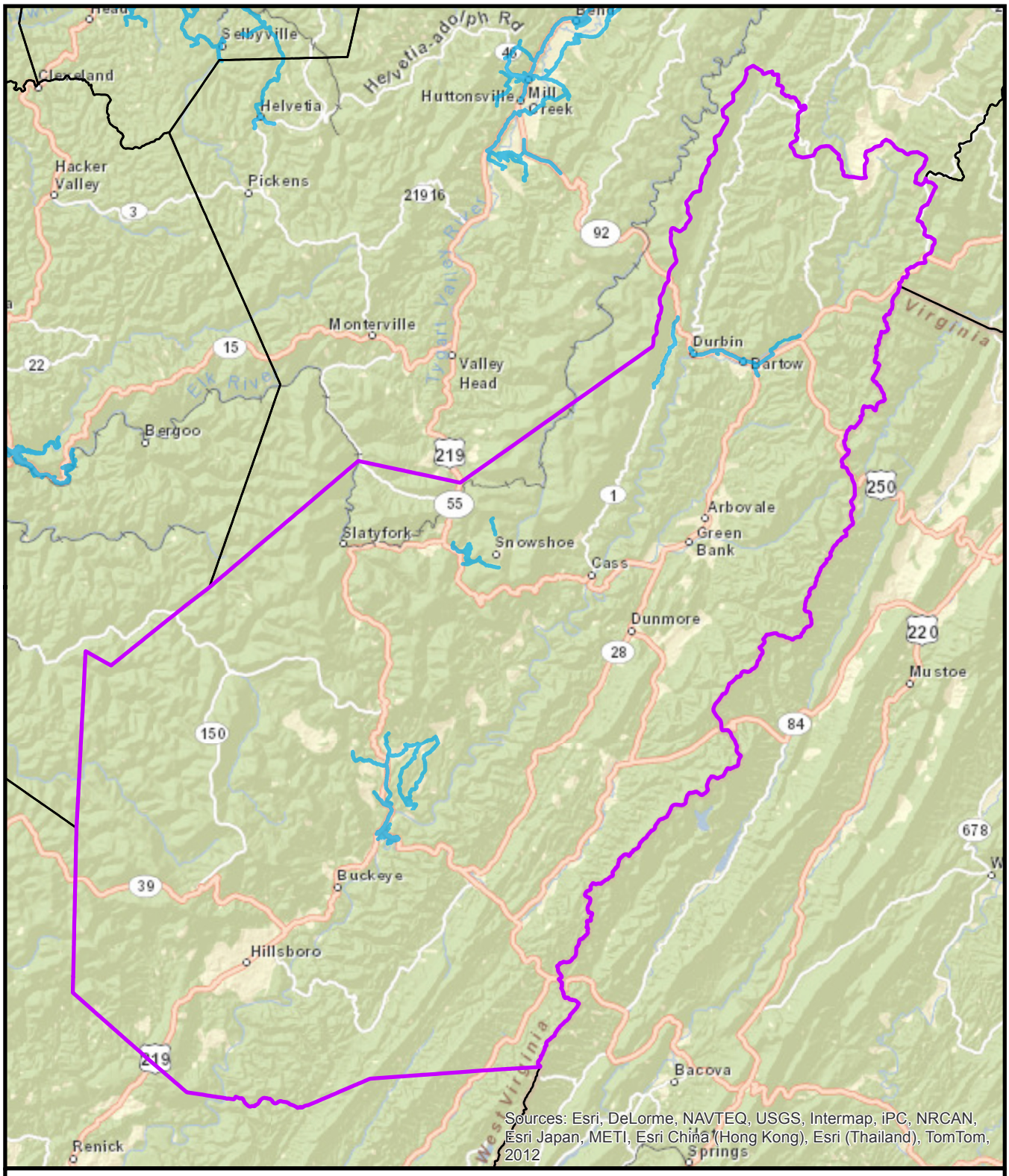
N

0 1.25 2.5 5 Miles

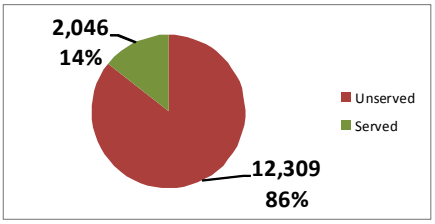
Served Area

Sewer Service Area
Pleasants County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



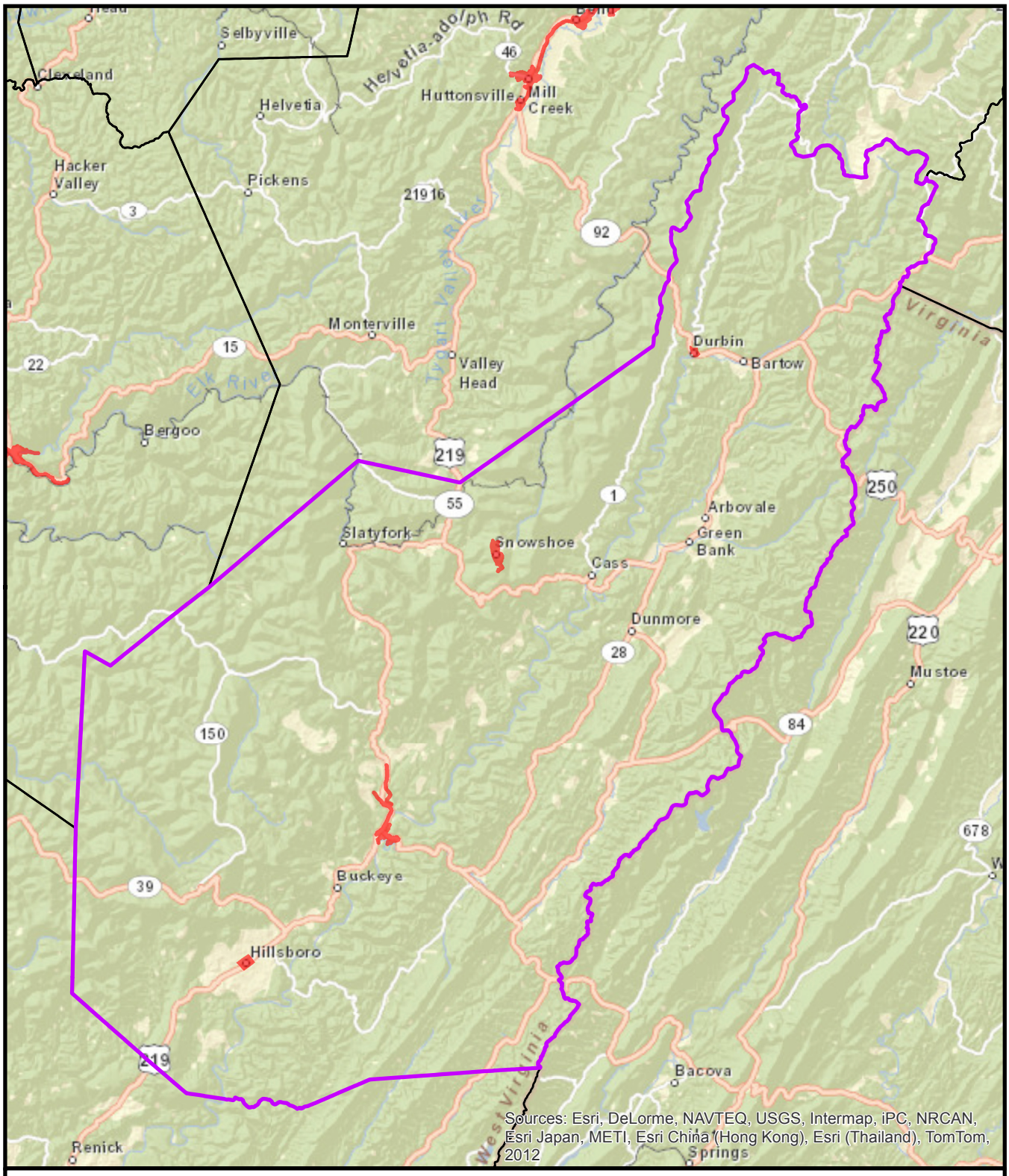
N

0 2.75 5.5 11 Miles

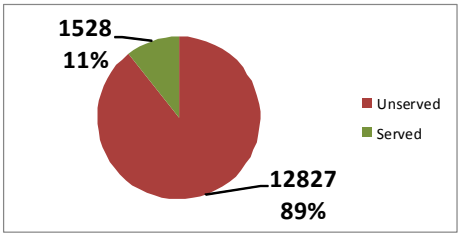
Served Area

Water Service Area
Pocahontas County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

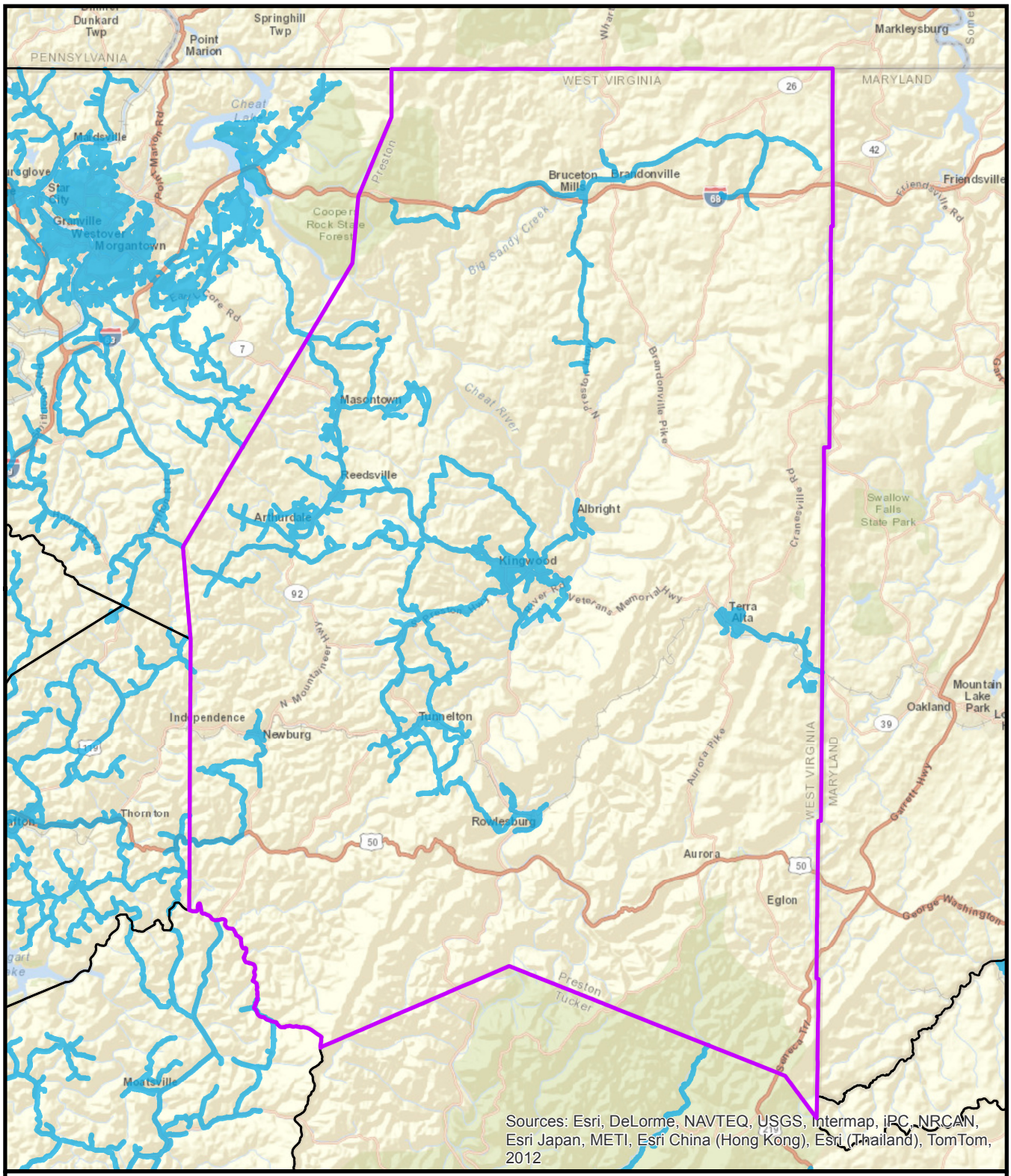
0 2.75 5.5 11 Miles

Served Area

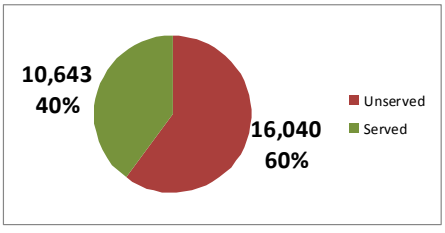
Sewer Service Area
Pocahontas County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

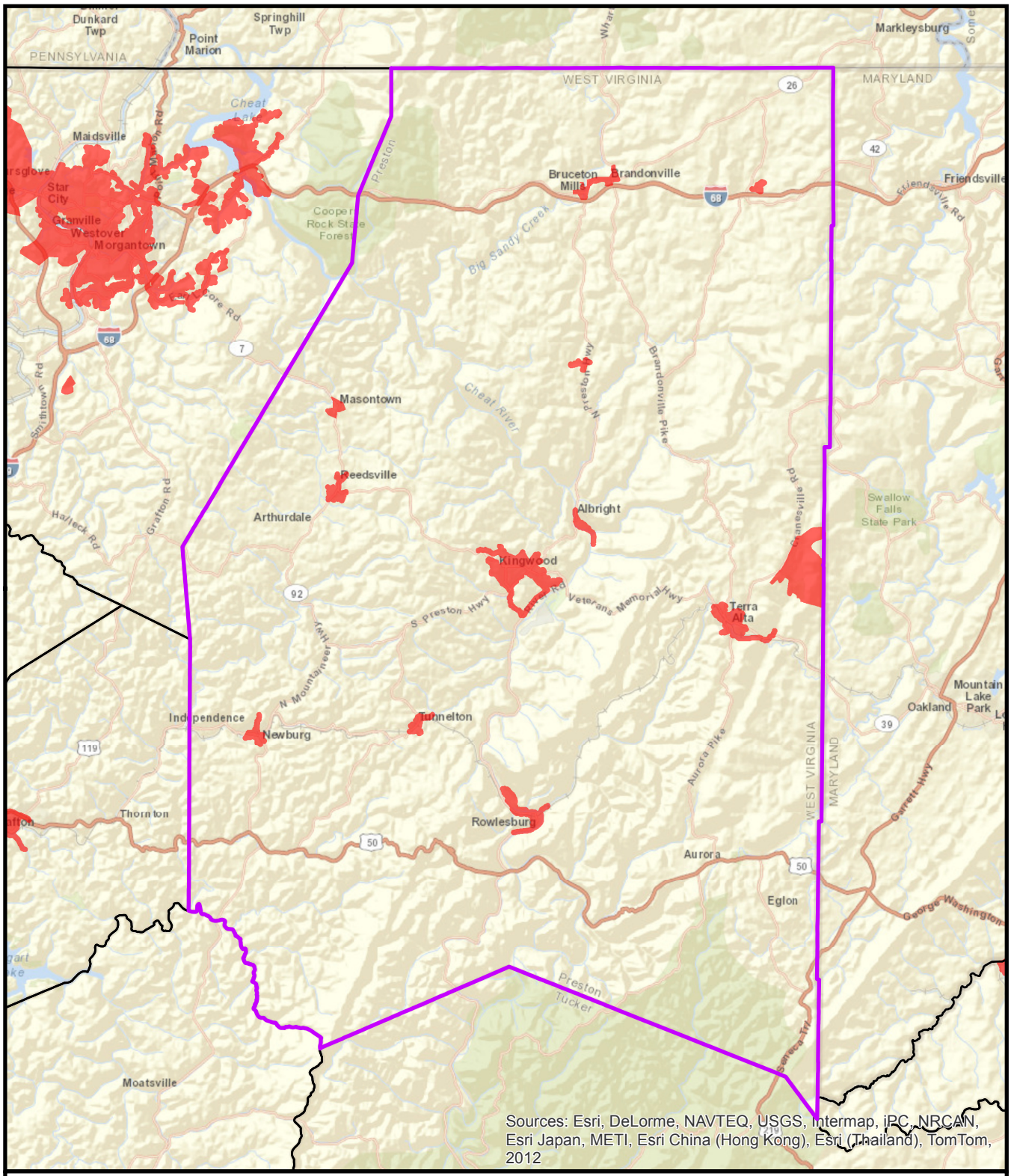
0 2 4 8 Miles

Served Area

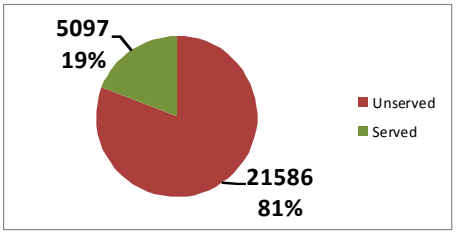
Water Service Area
Preston County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

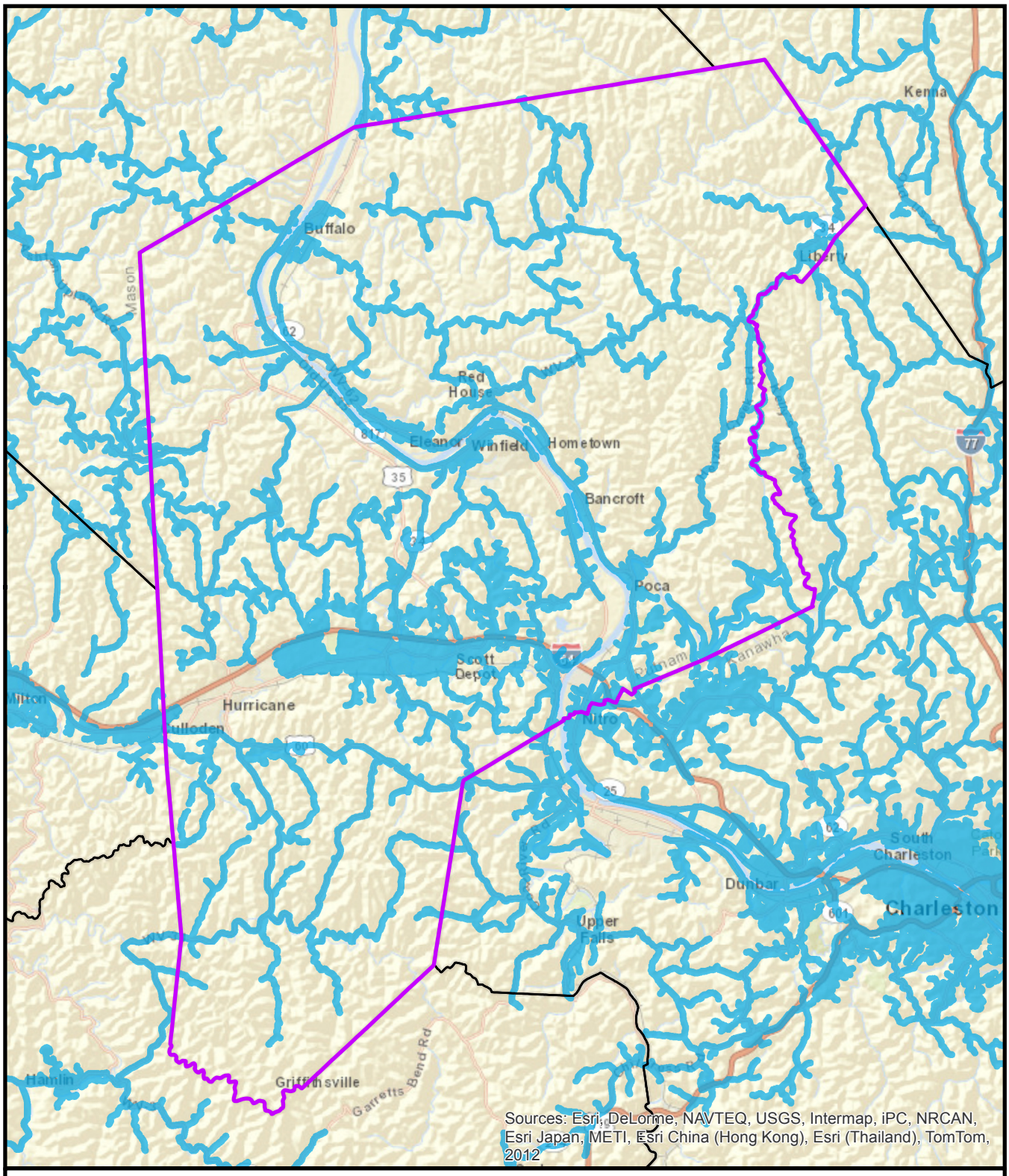
0 2 4 8 Miles

Served Area

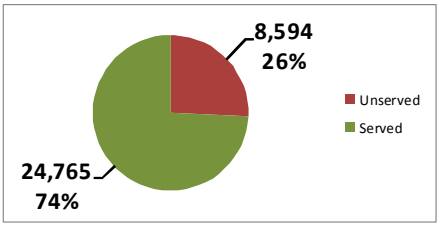
Sewer Service Area
PrestonCounty

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

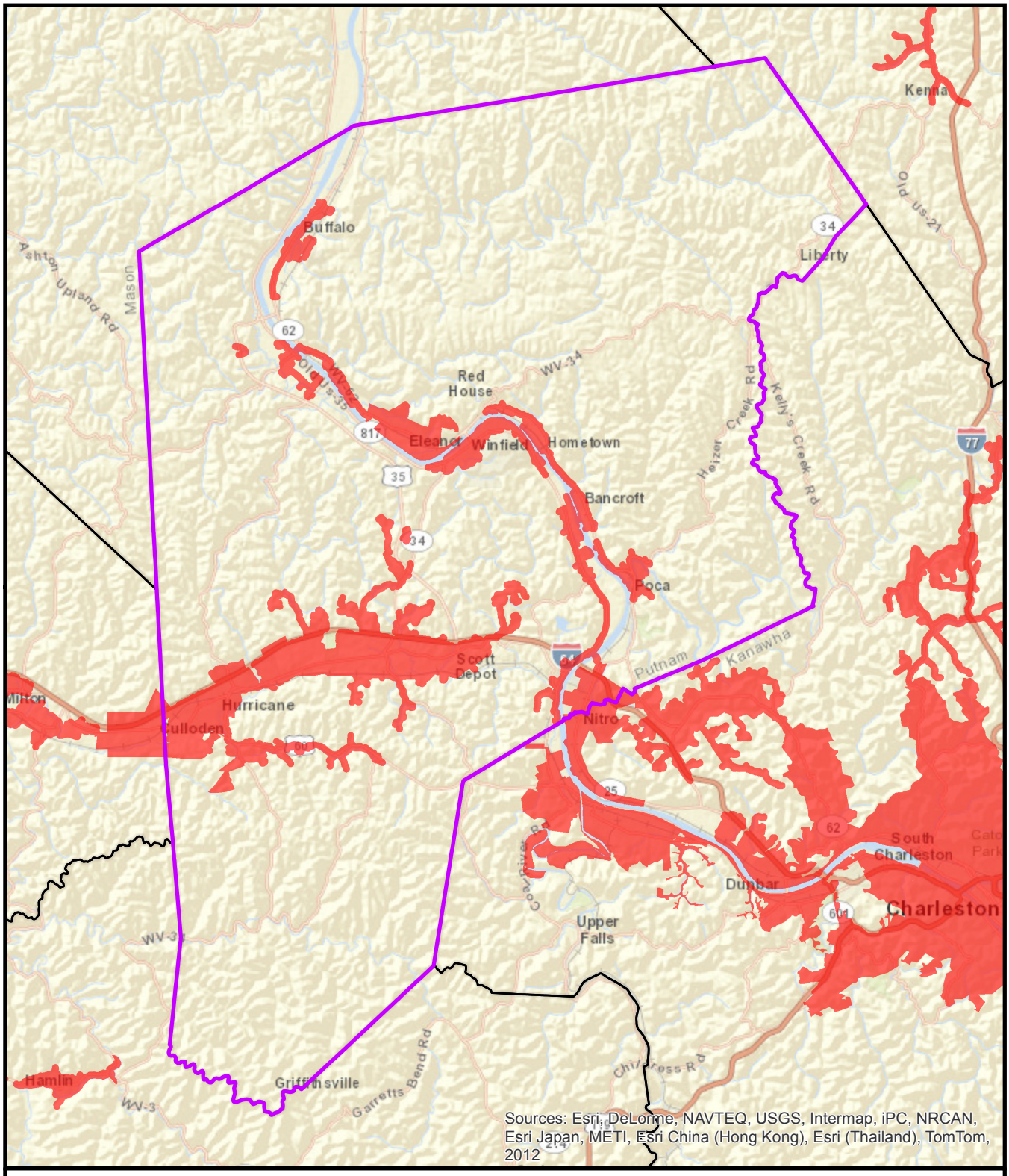
0 1.5 3 6 Miles

Served Area

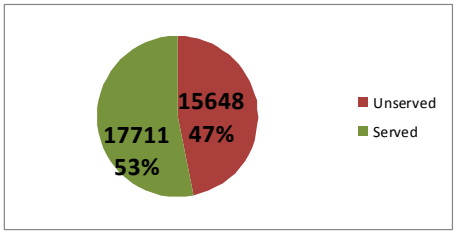
Water Service Area
Putnam County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



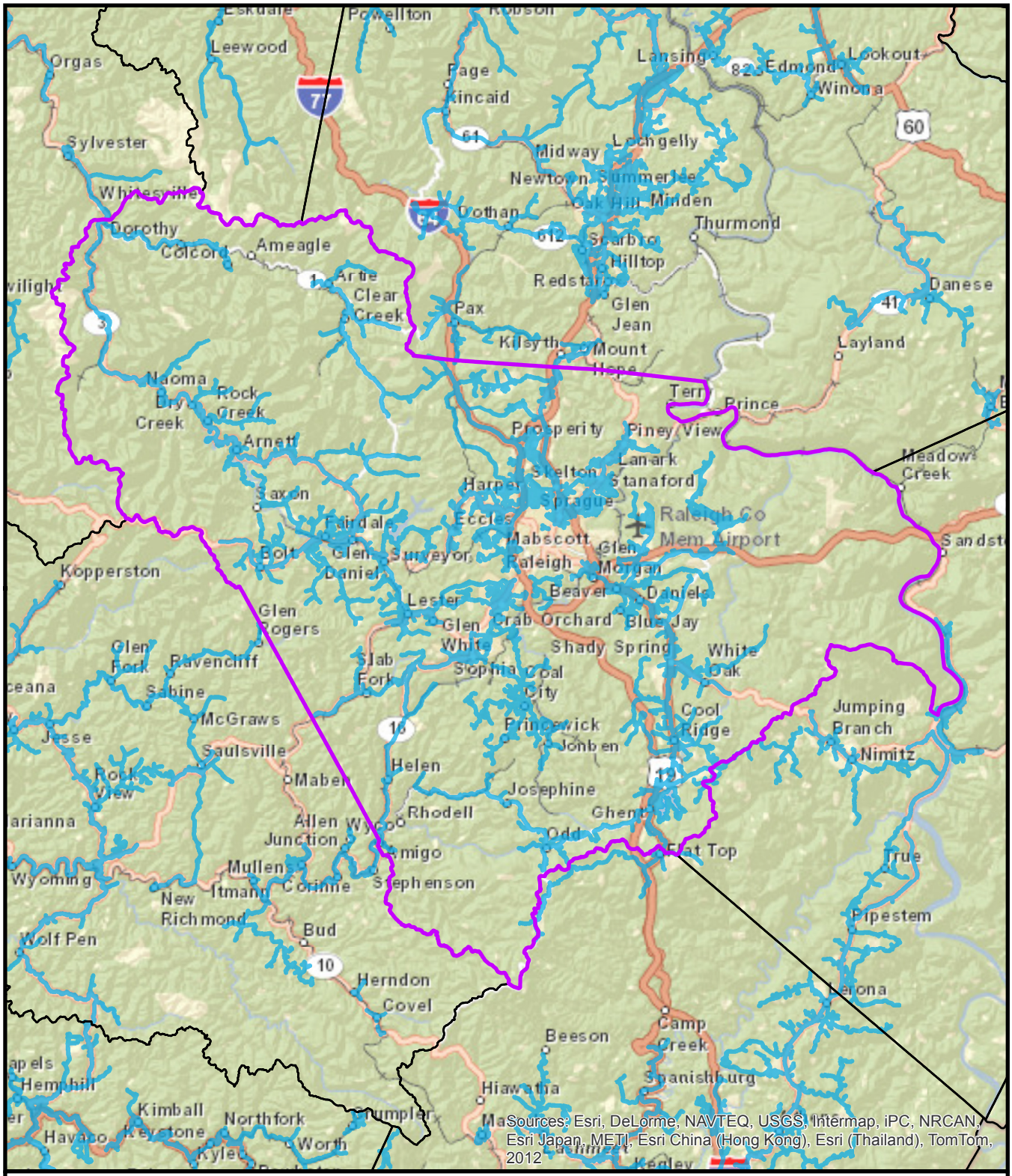
N

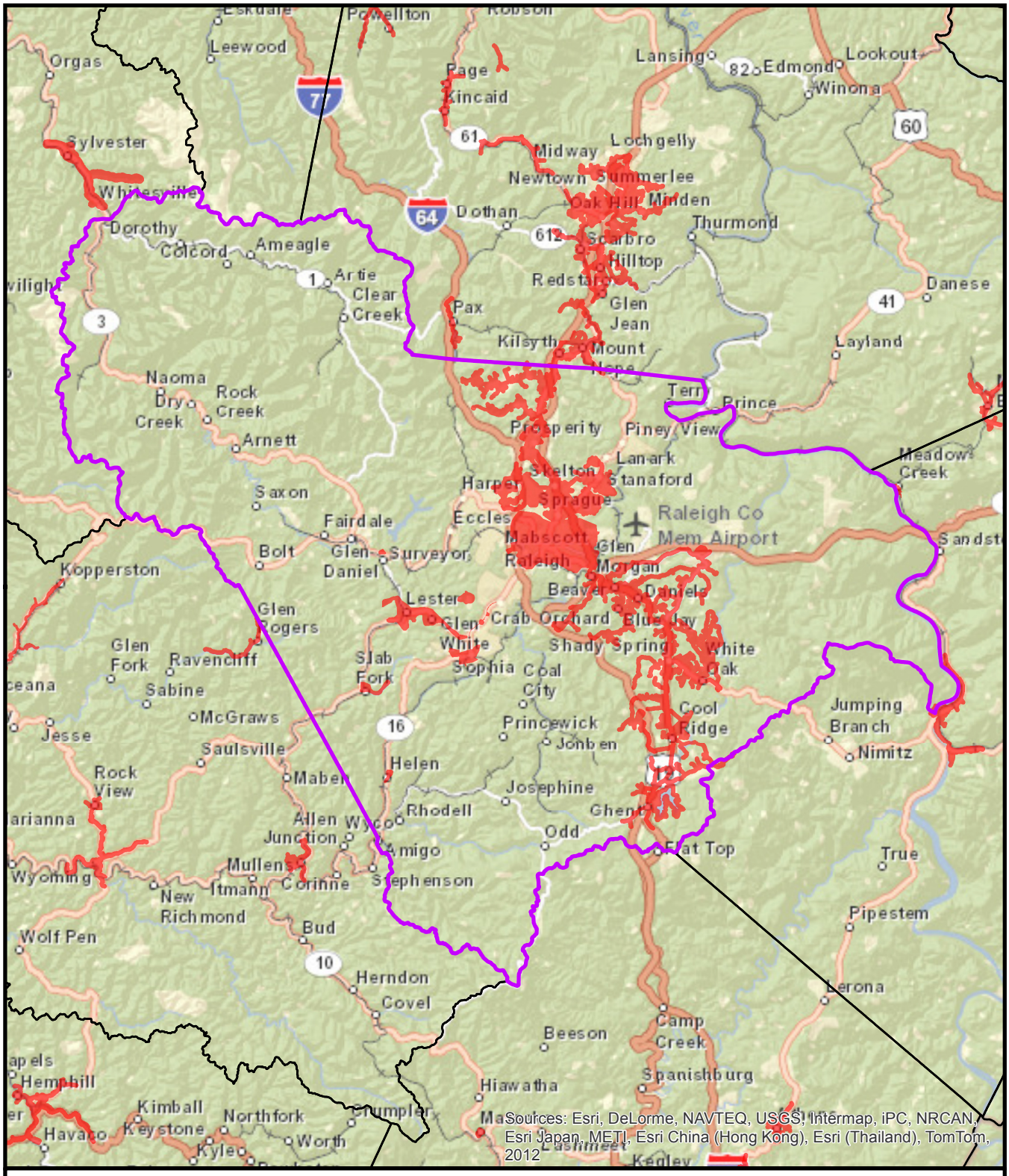
0 1.5 3 6 Miles

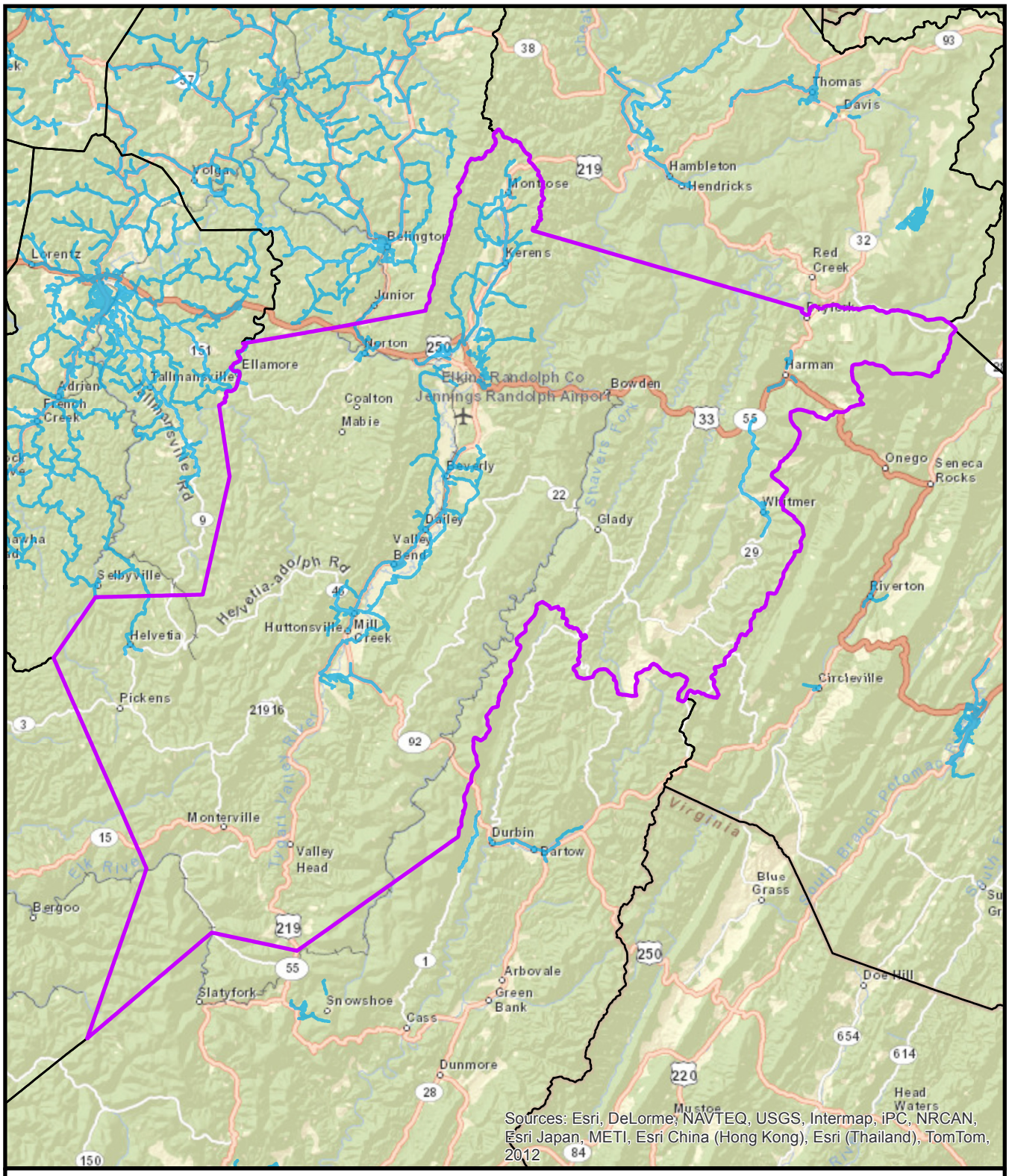
Served Area

Sewer Service Area
Putnam County

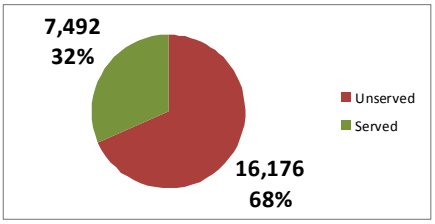
West Virginia
Infrastructure & Jobs Development Council


Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012
Distribution of Service to Structures
17,166
33%
Unserved
Served
35,574
67%
N
0 2.5 5 10 Miles
Served Area
Water Service Area
Raleigh County
West Virginia
Infrastructure & Jobs
Development Council


Orgas
Leewood
Page
Kincaid
Lansing
Edmond
Lookout
Winona
Sylvester
Midway
Lochgelly
Newtown
Summerlee
Oak Hill
Minden
Dothan
Thurmond
Dorothy
Colcord
Ameagle
Scarbro
Hilltop
Redstar
Artie
Clear Creek
Pax
Glen Jean
Kilsyth
Mount Nope
Danese
Layland
Naoma
Dry Creek
Rock Creek
Arnett
Terr
Prince
Prosperity
Piney View
Lanark
Stanaford
Skelton
Harper
Sprague
Meadow Creek
Saxon
Fairdale
Eccles
Raleigh Co Mem Airport
Bolt
Glen Daniel
Surveyor
Mabscott
Raleigh
Glen Morgan
Kopperston
Beaver
Daniels
Lester
Glen White
Crab Orchard
Blue Jay
Glen Rogers
Shady Spring
White Oak
Glen Fork
Ravencliff
Slab Fork
Sophia
Coal City
Sabine
Princewick
Cool Ridge
Jumping Branch
Jesse
McGraws
Jonben
Saulsville
Nimitz
Rock View
Helen
Mabel
Josephine
Rhodell
Ghent
Allen Junction
Wyco
Odd
Flat Top
Amigo
True
Wyoming
Mullens
Corinne
Stephenson
Itmann
New Richmond
Pipestem
Wolf Pen
Bud
Herndon
Covel
Lerona
Beeson
Camp Creek
Spanishburg
Hiawatha
Hemphill
Kimball
Keystone
Northfork
Havaco
Kyle
Worth
Crumpler
Kegley
Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012
N
0 2.5 5 10 Miles
Served Area
Distribution of Service to Structures
25359
48%
27381
52%
Unserved
Served
Sewer Service Area
Raleigh County
West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

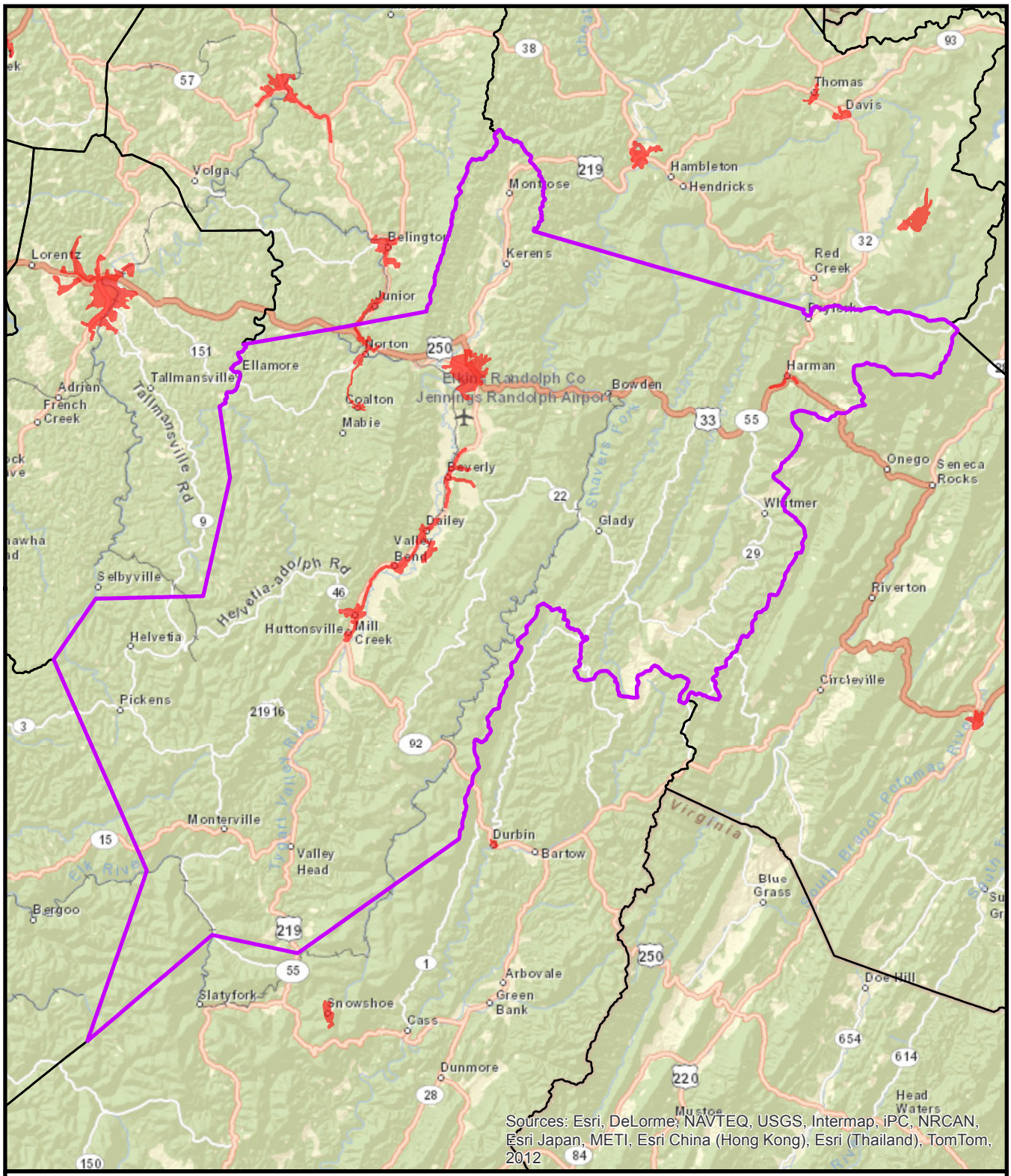
0 3.25 6.5 13 Miles

Served Area

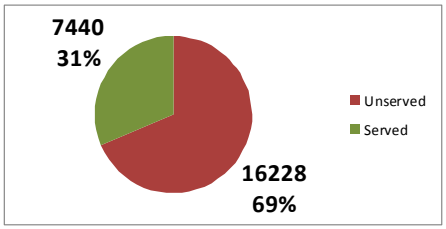
Water Service Area
Randolph County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

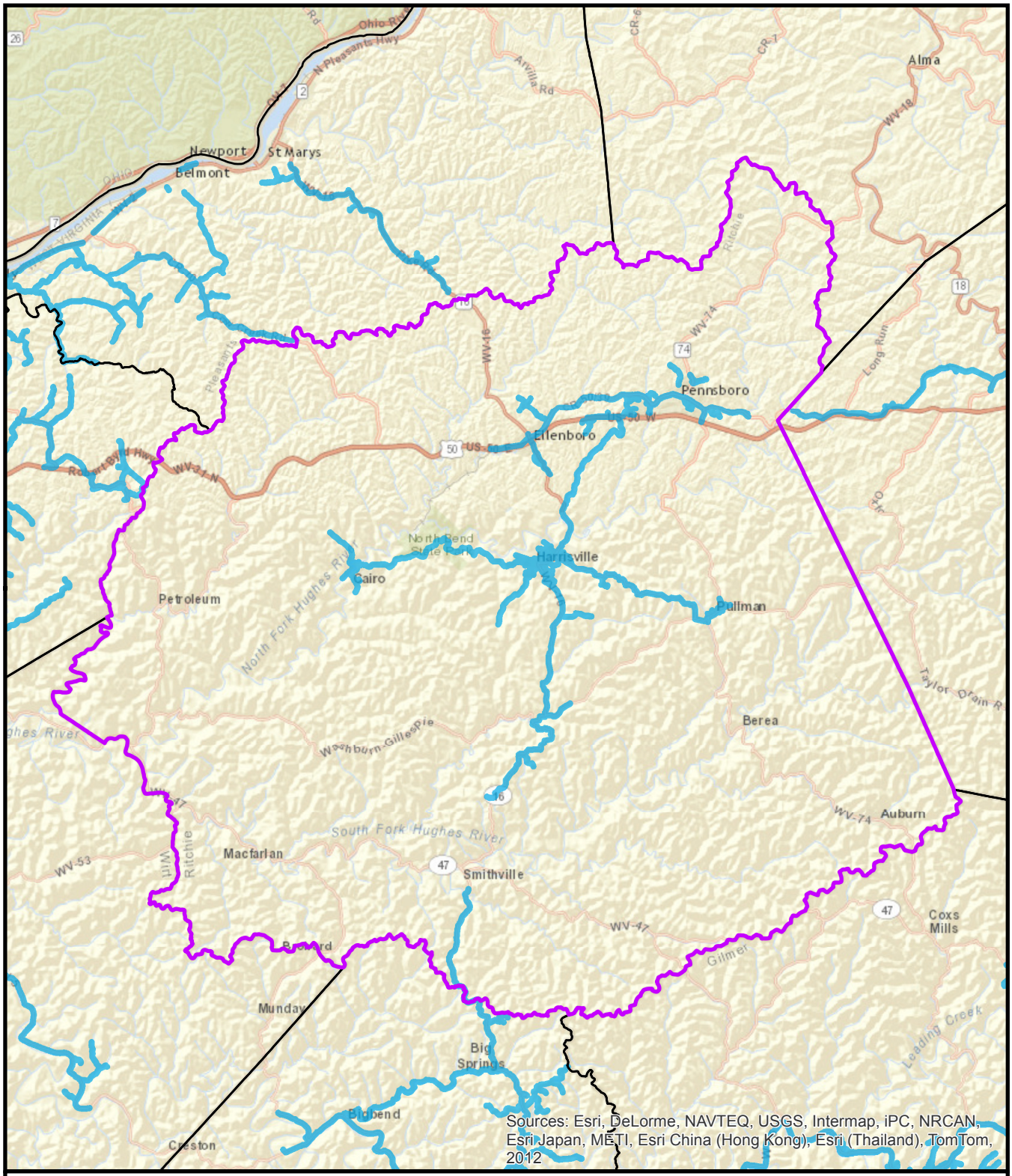
0 3.25 6.5 13 Miles

Served Area

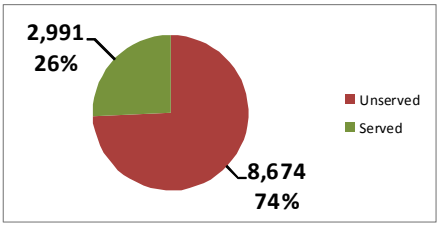
Sewer Service Area
Randolph County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

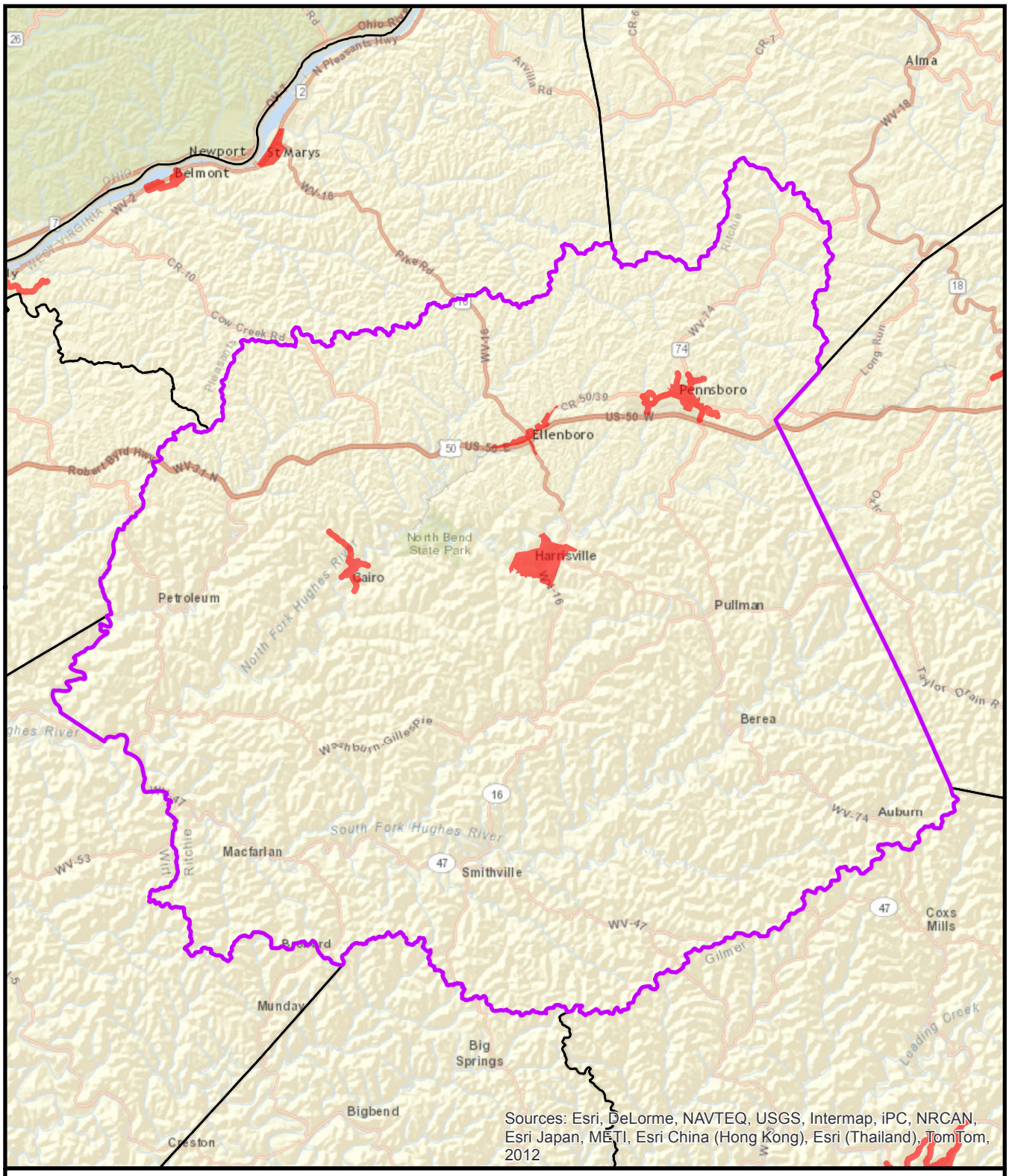
0 1.75 3.5 7 Miles

Served Area

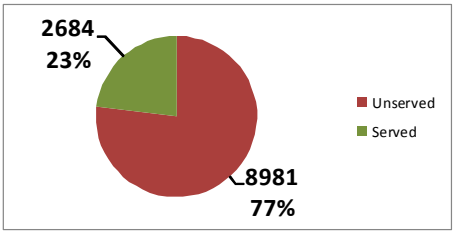
Water Service Area
Ritchie County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



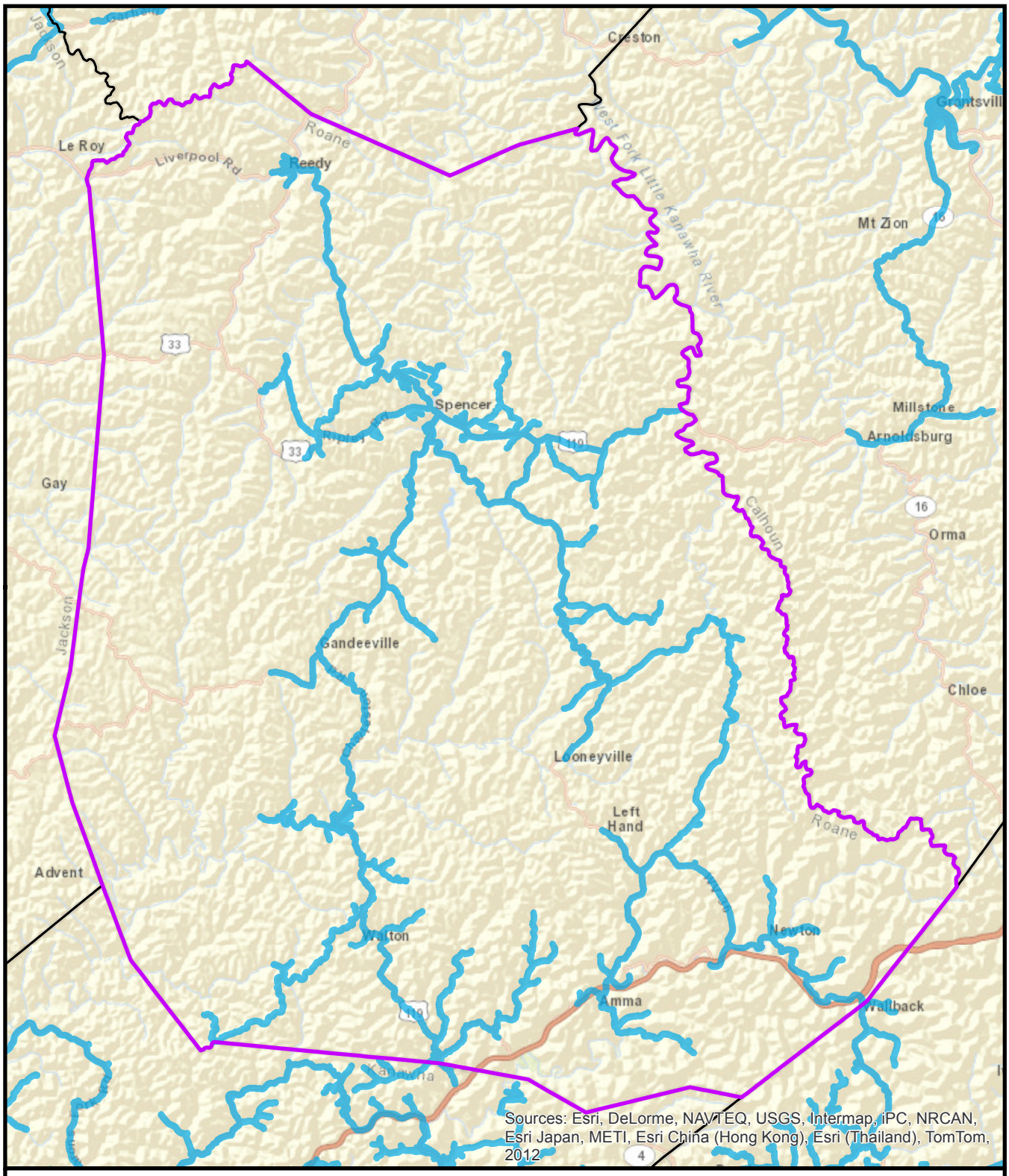
N

0 1.75 3.5 7 Miles

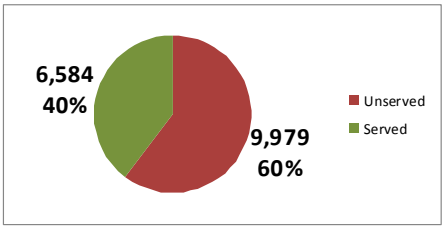
Served Area

Sewer Service Area
Ritchie County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

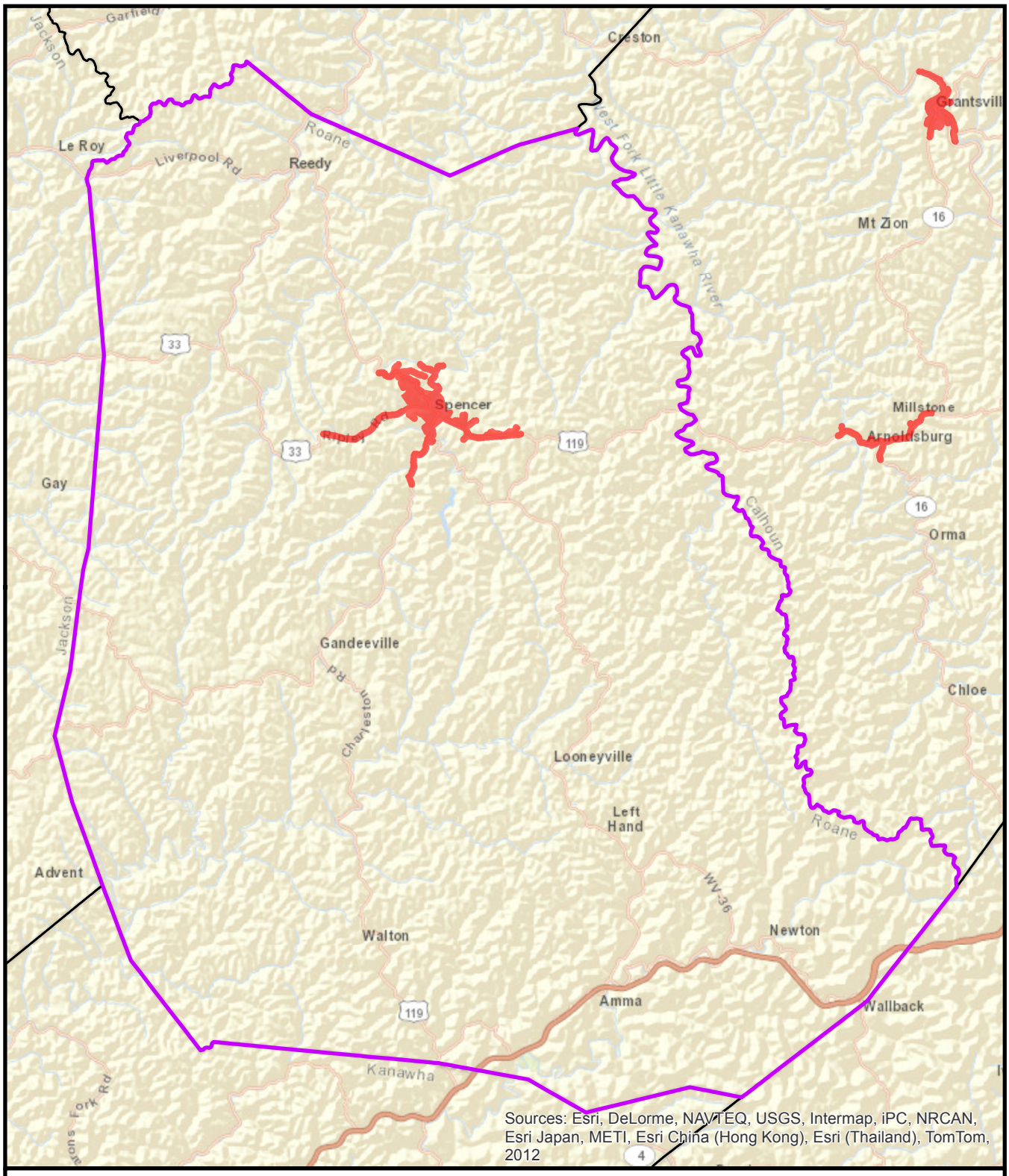
0 1.75 3.5 7 Miles

Served Area

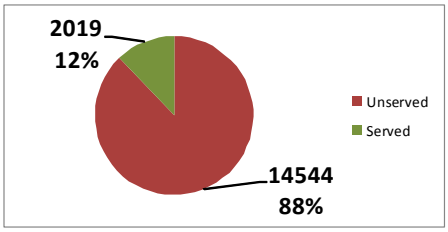
Water Service Area
Roane County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



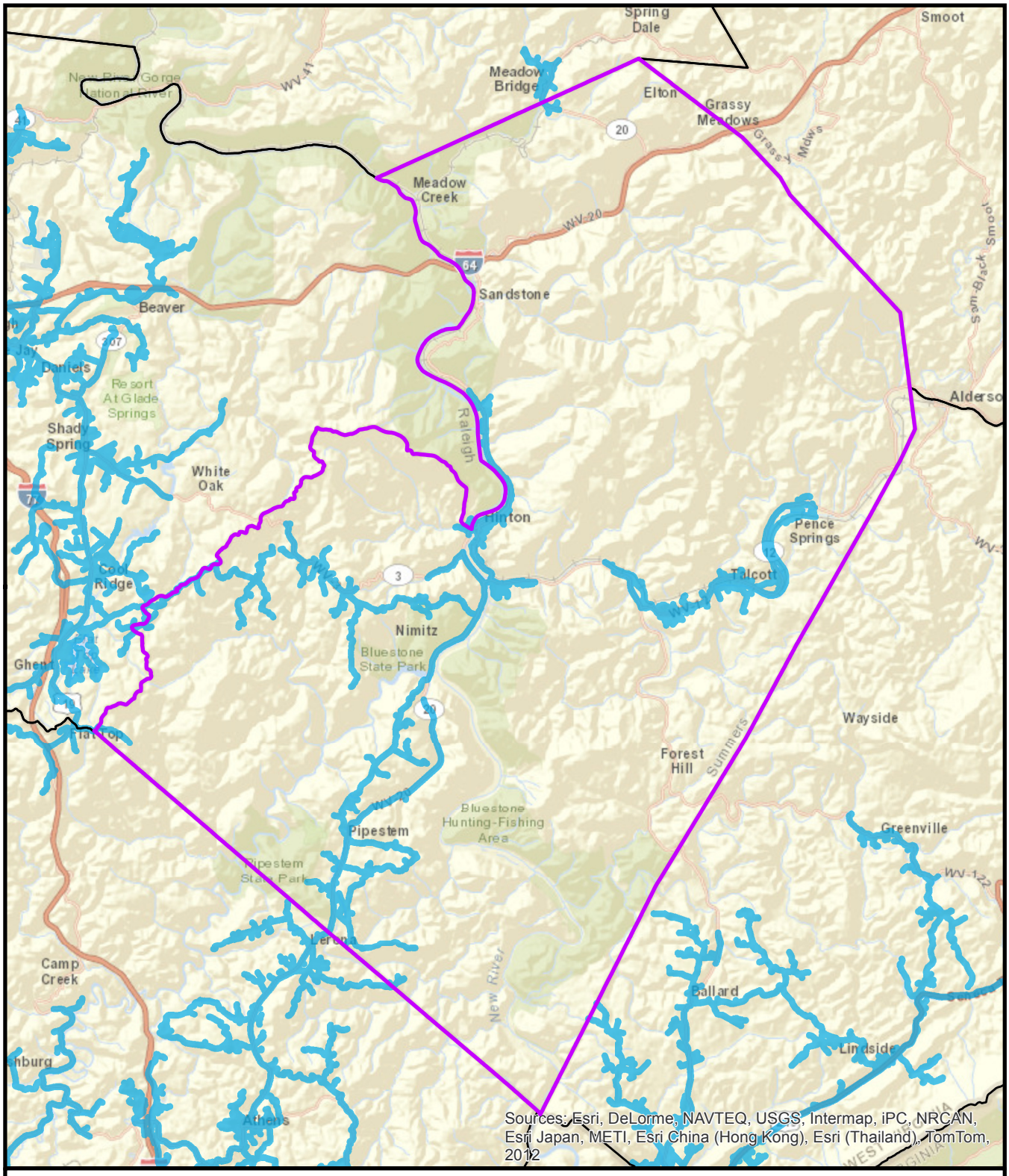
N

0 1.75 3.5 7 Miles

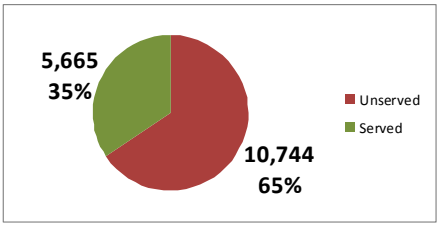
Served Area

Sewer Service Area
Roane County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



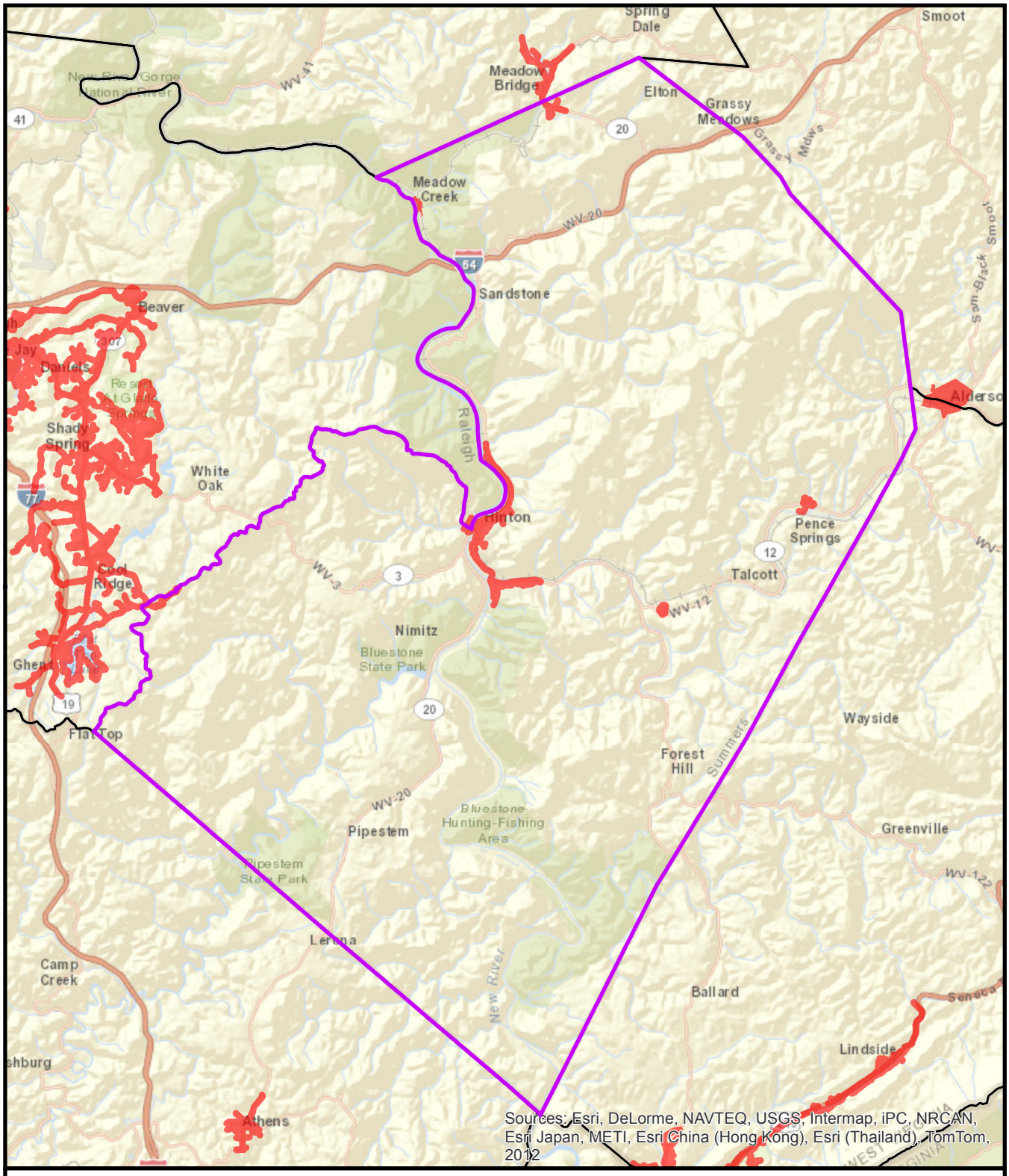
N

0 1.75 3.5 7 Miles

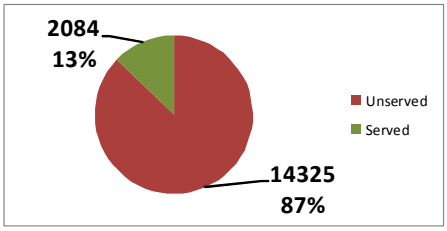
Served Area

Water Service Area
Summers County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

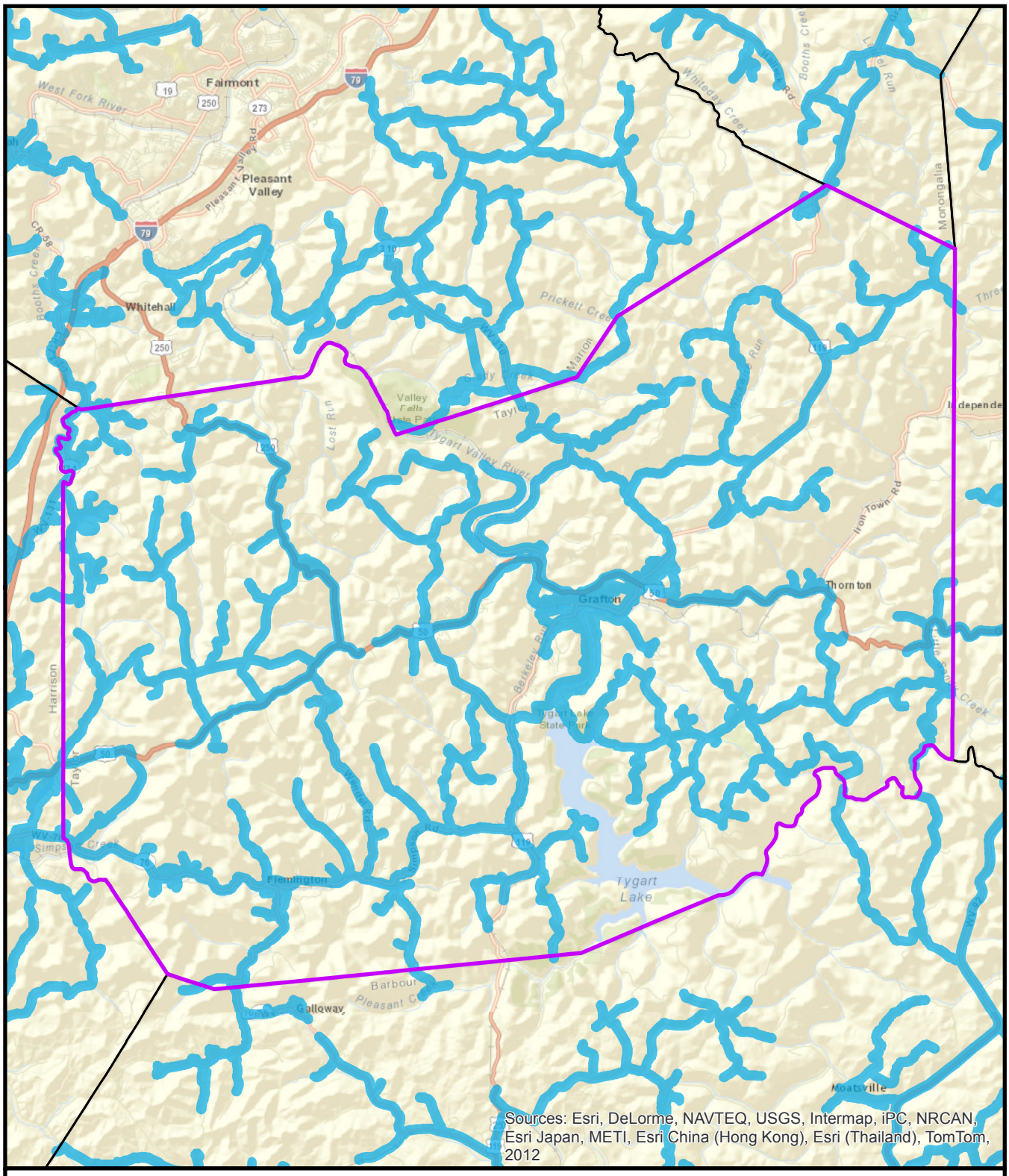
0 1.75 3.5 7 Miles

Served Area

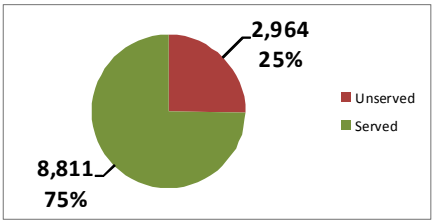
Sewer Service Area
Summers County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

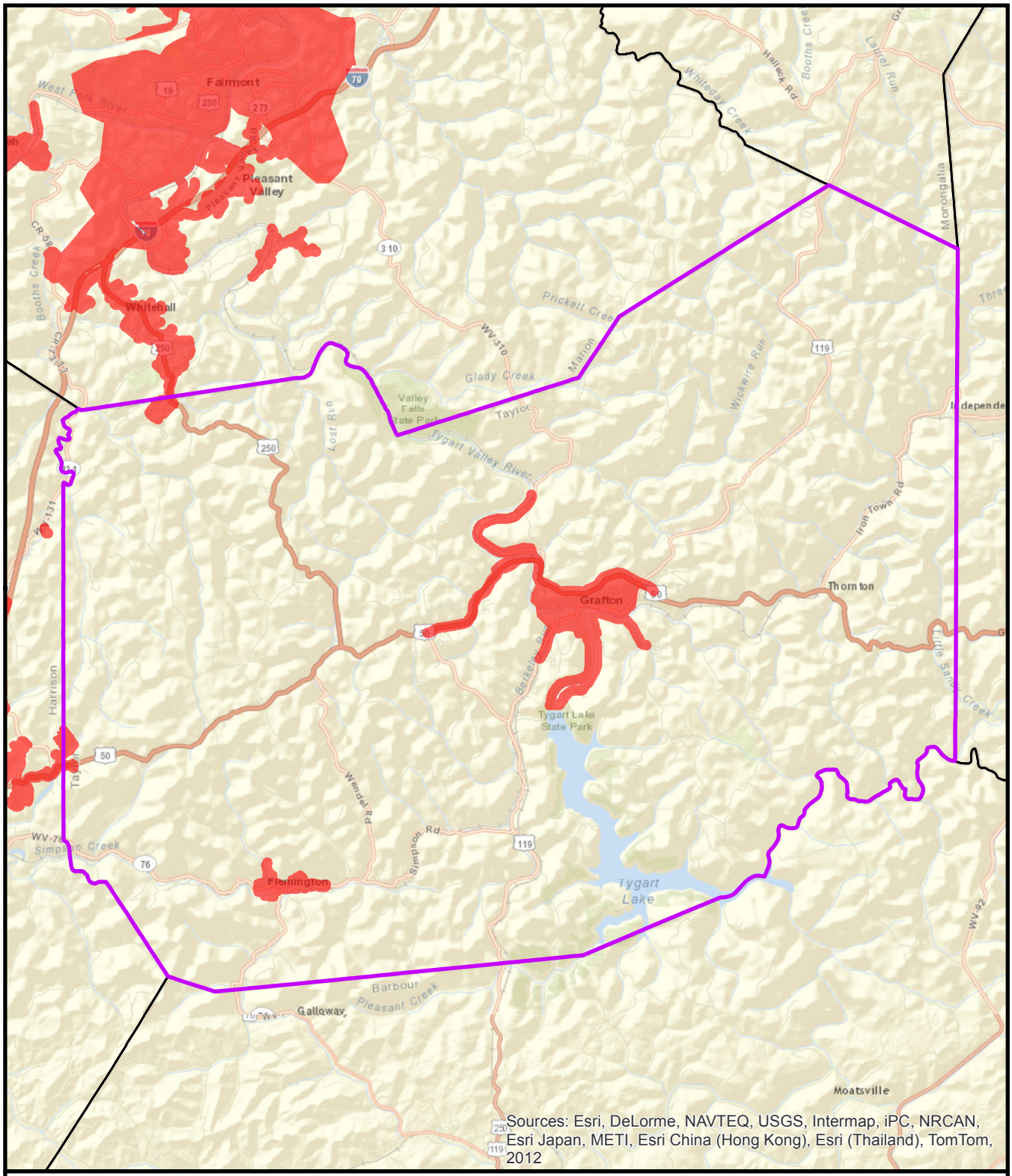
0 1 2 4 Miles

Served Area

Water Service Area
Taylor County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



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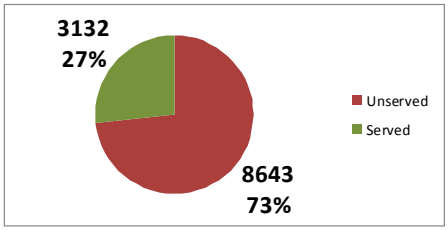


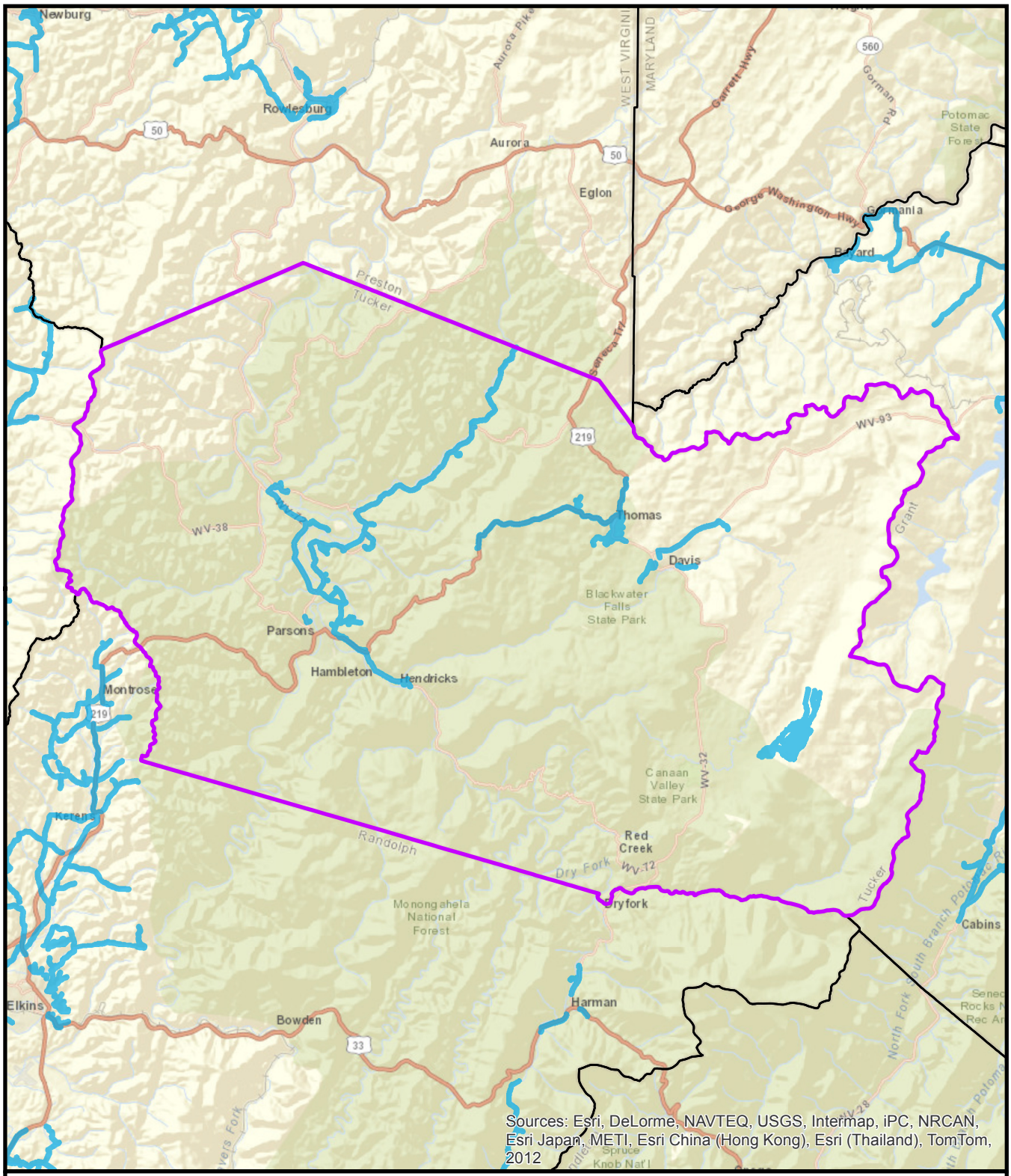
N

0 1 2 4 Miles

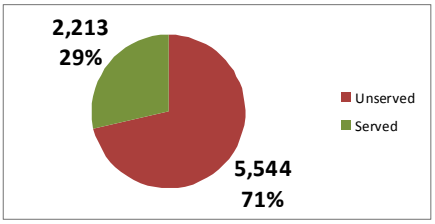
Served Area

Sewer Service Area
Taylor County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



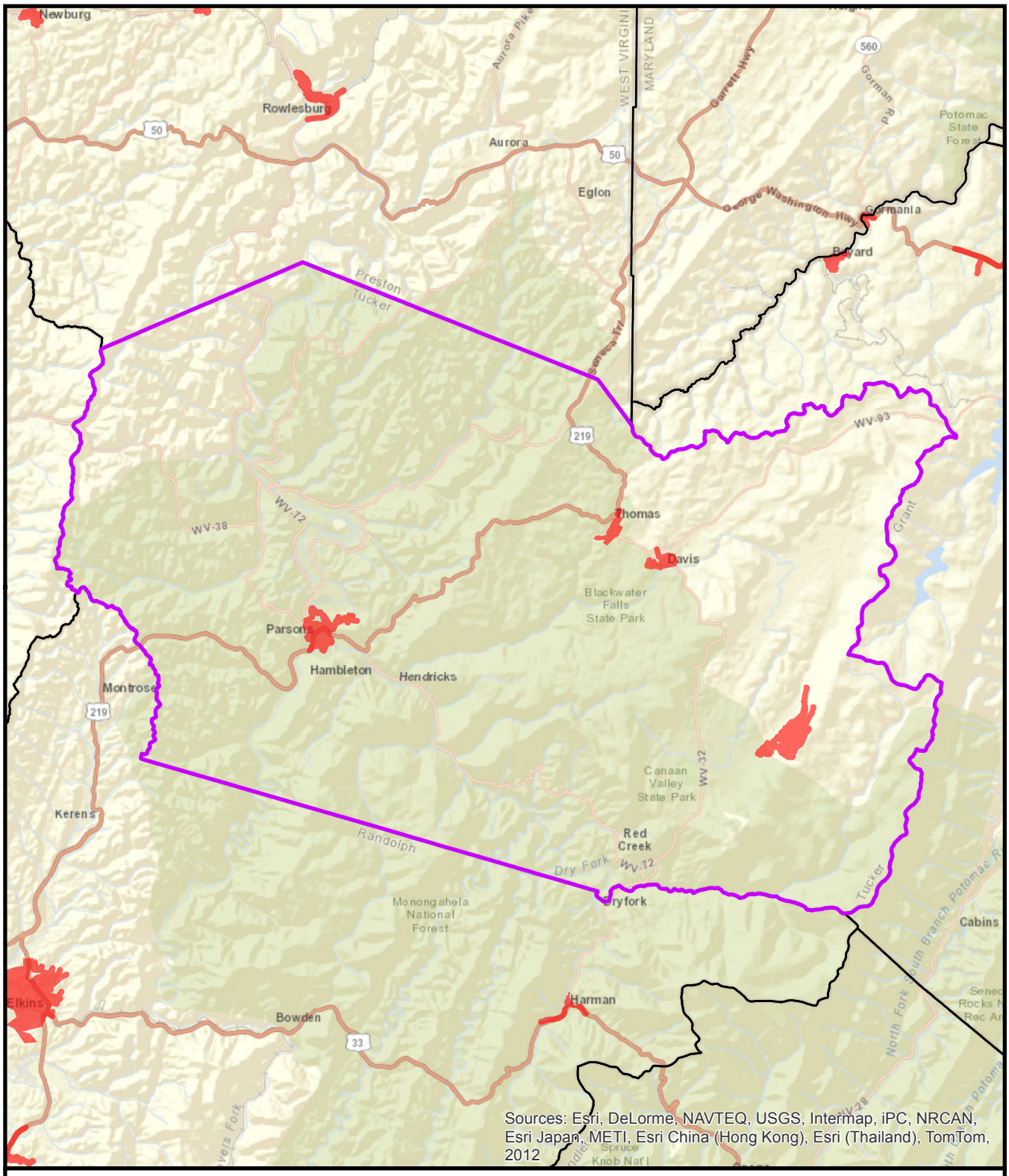
N

0 2 4 8 Miles

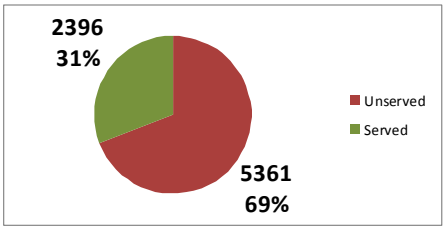
Served Area

Water Service Area
Tucker County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

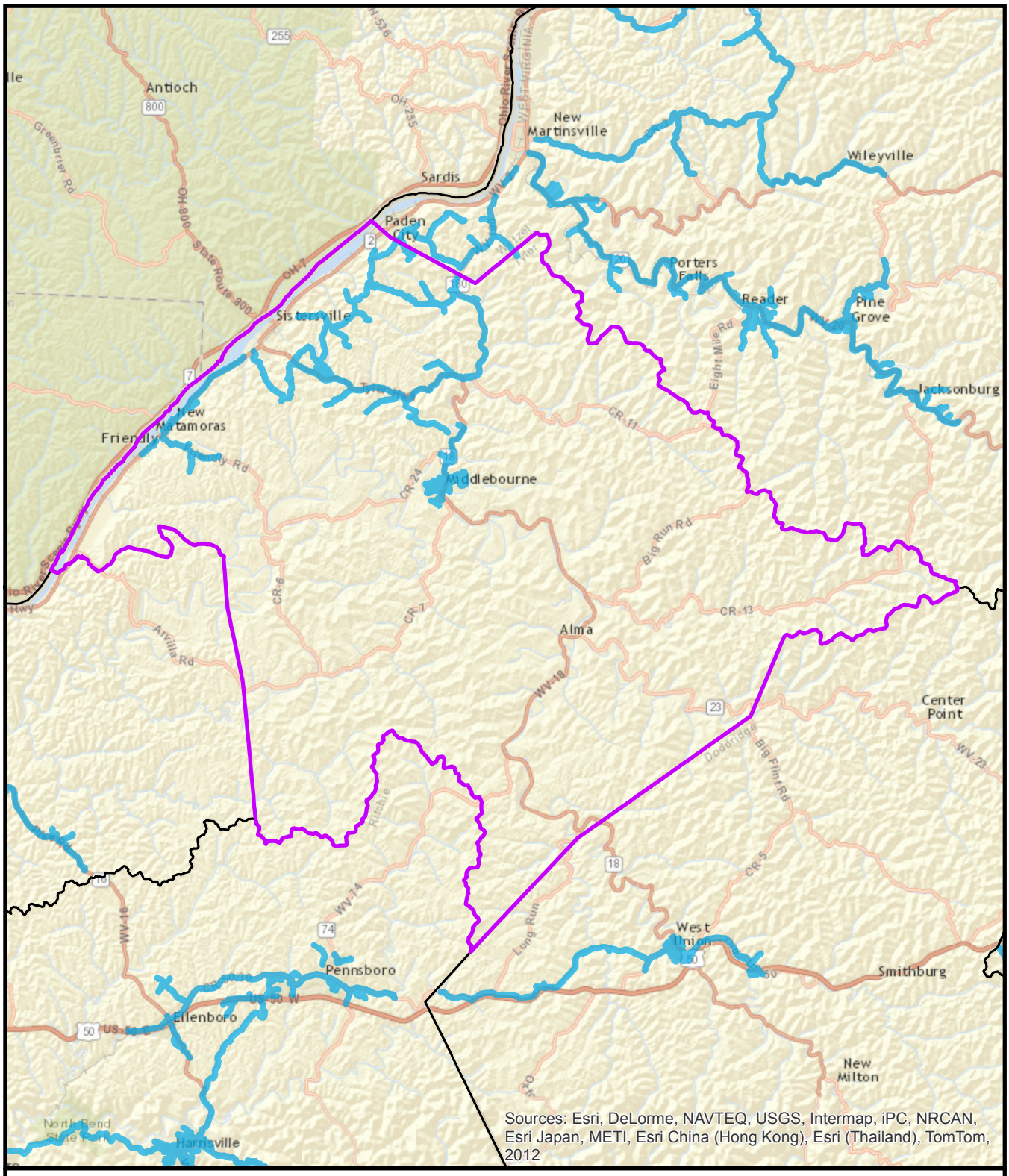
0 2 4 8 Miles

Served Area

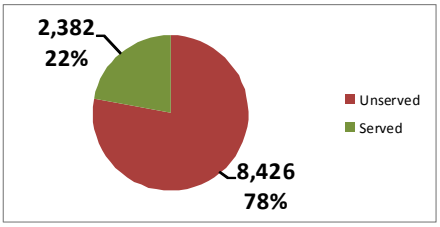
Sewer Service Area
Tucker County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

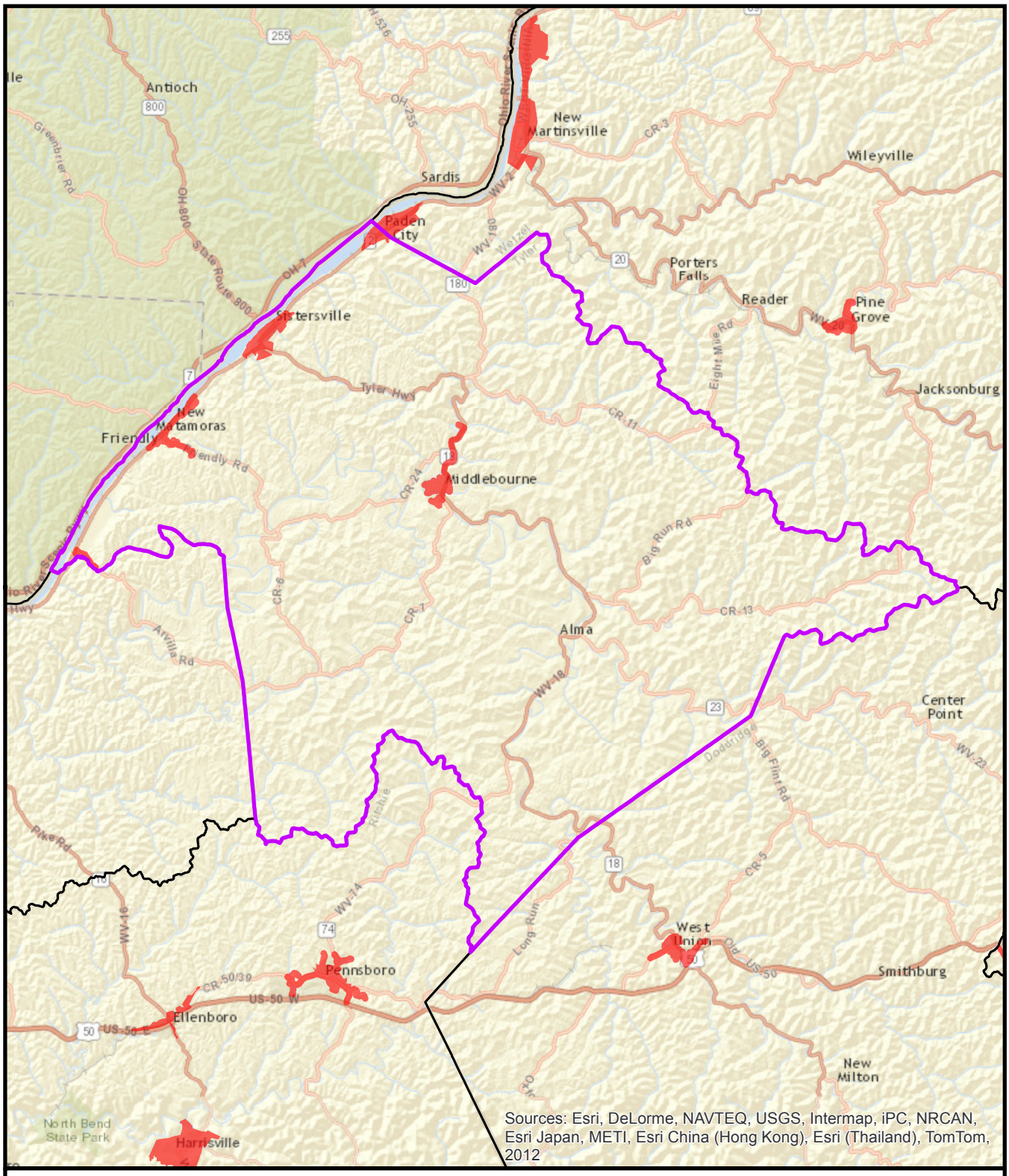
0 1.75 3.5 7 Miles

Served Area

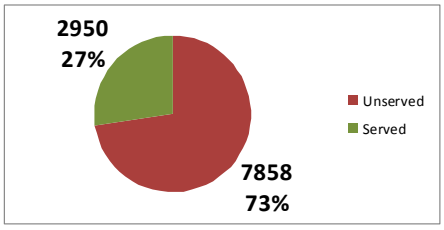
Water Service Area
Tyler County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

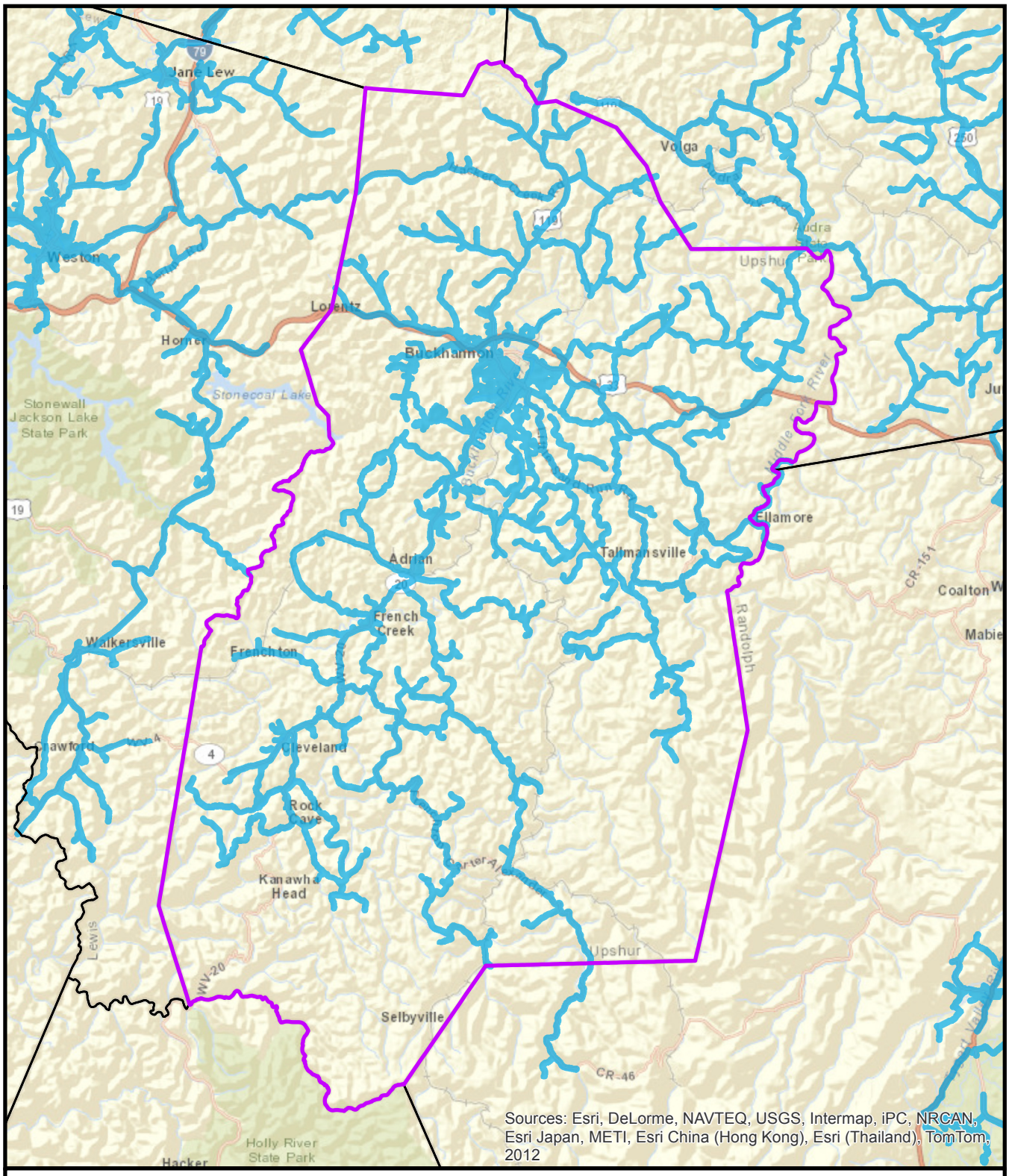
0 1.75 3.5 7 Miles

Served Area

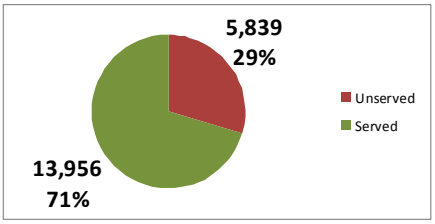
Sewer Service Area
Tyler County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



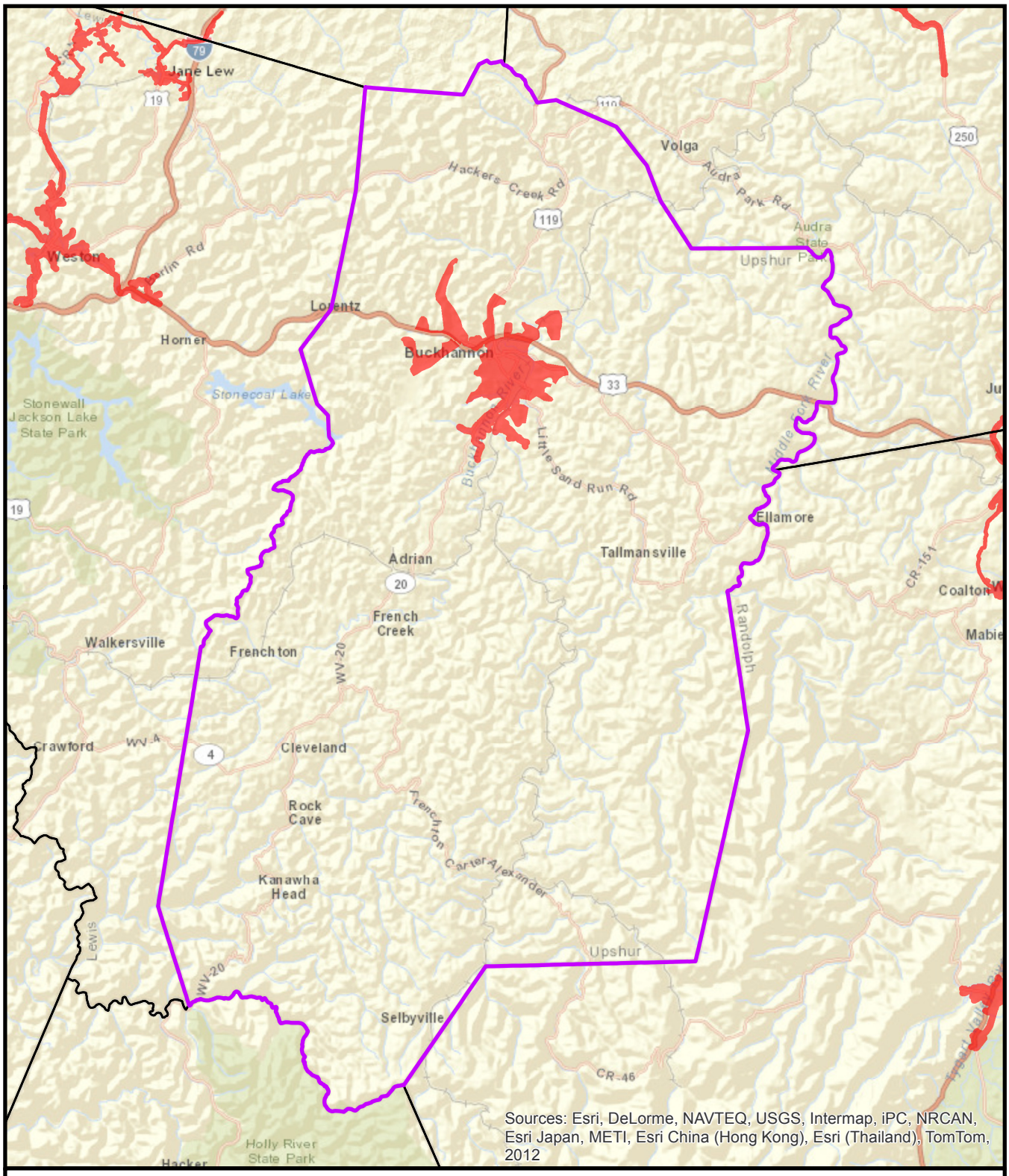
N

0 1.75 3.5 7 Miles

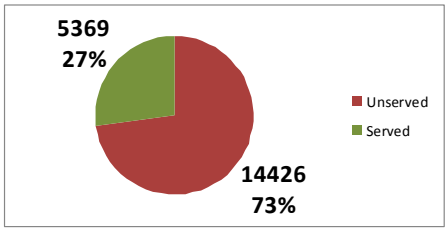
Served Area

Water Service Area
Upshur County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



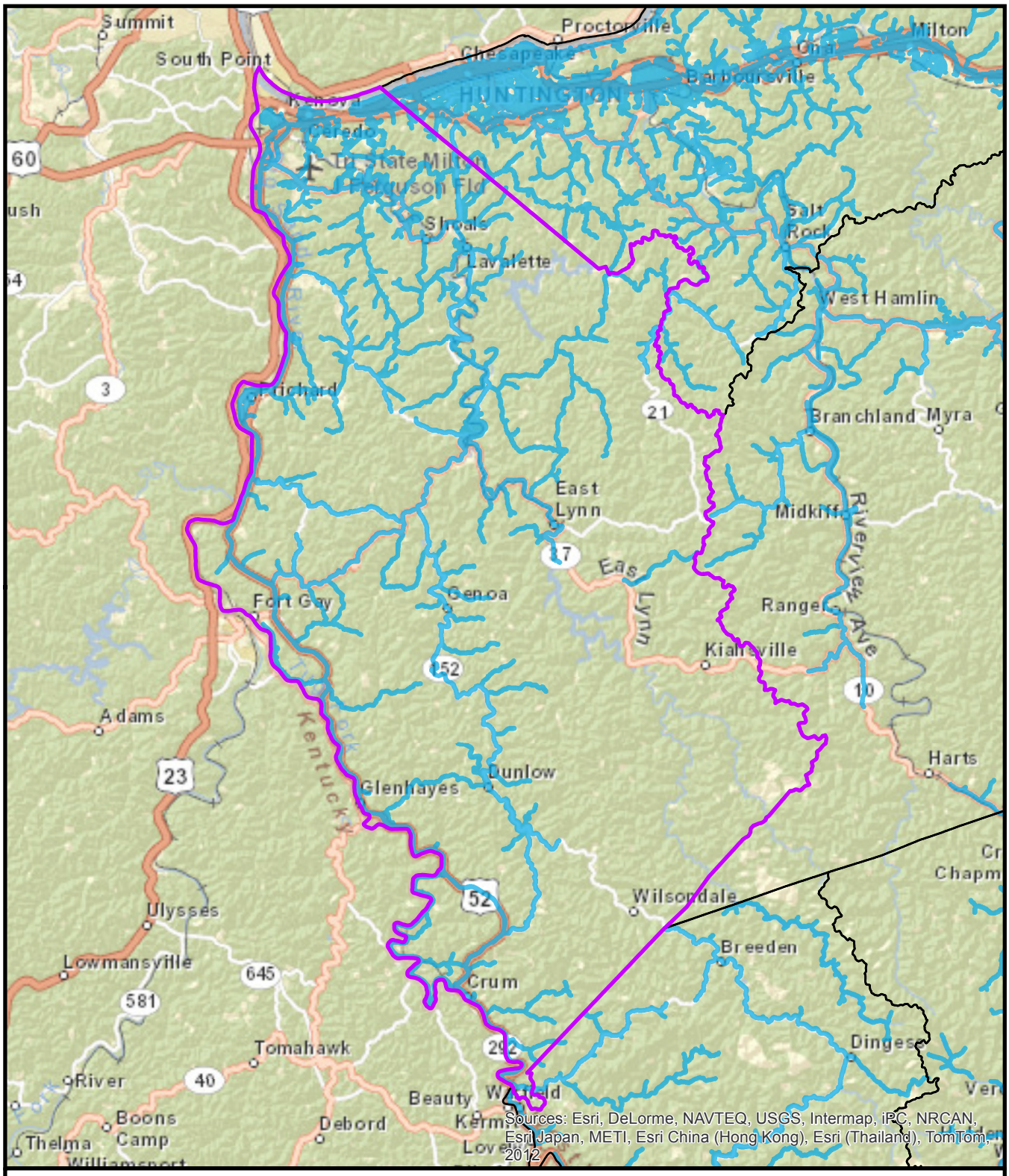
N

0 1.75 3.5 7 Miles

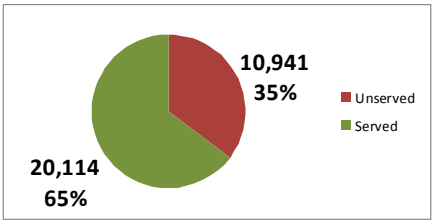
Served Area

Sewer Service Area
Upshur County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

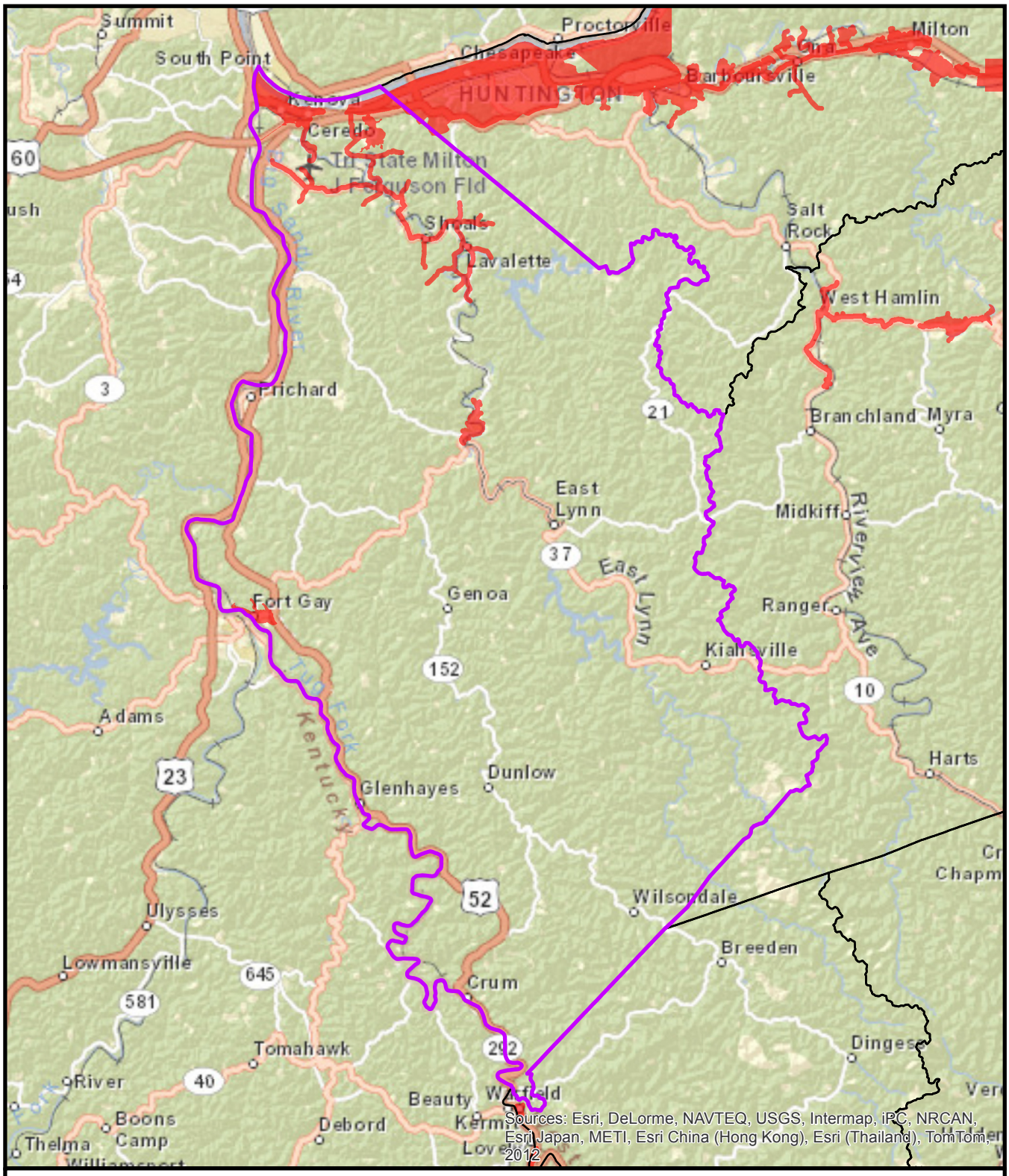
0 2.25 4.5 9 Miles

Served Area

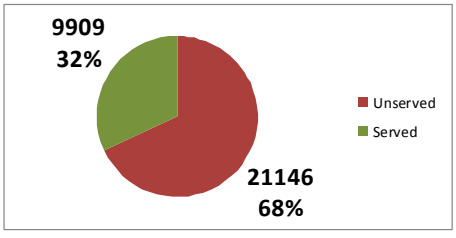
Water Service Area
Wayne County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



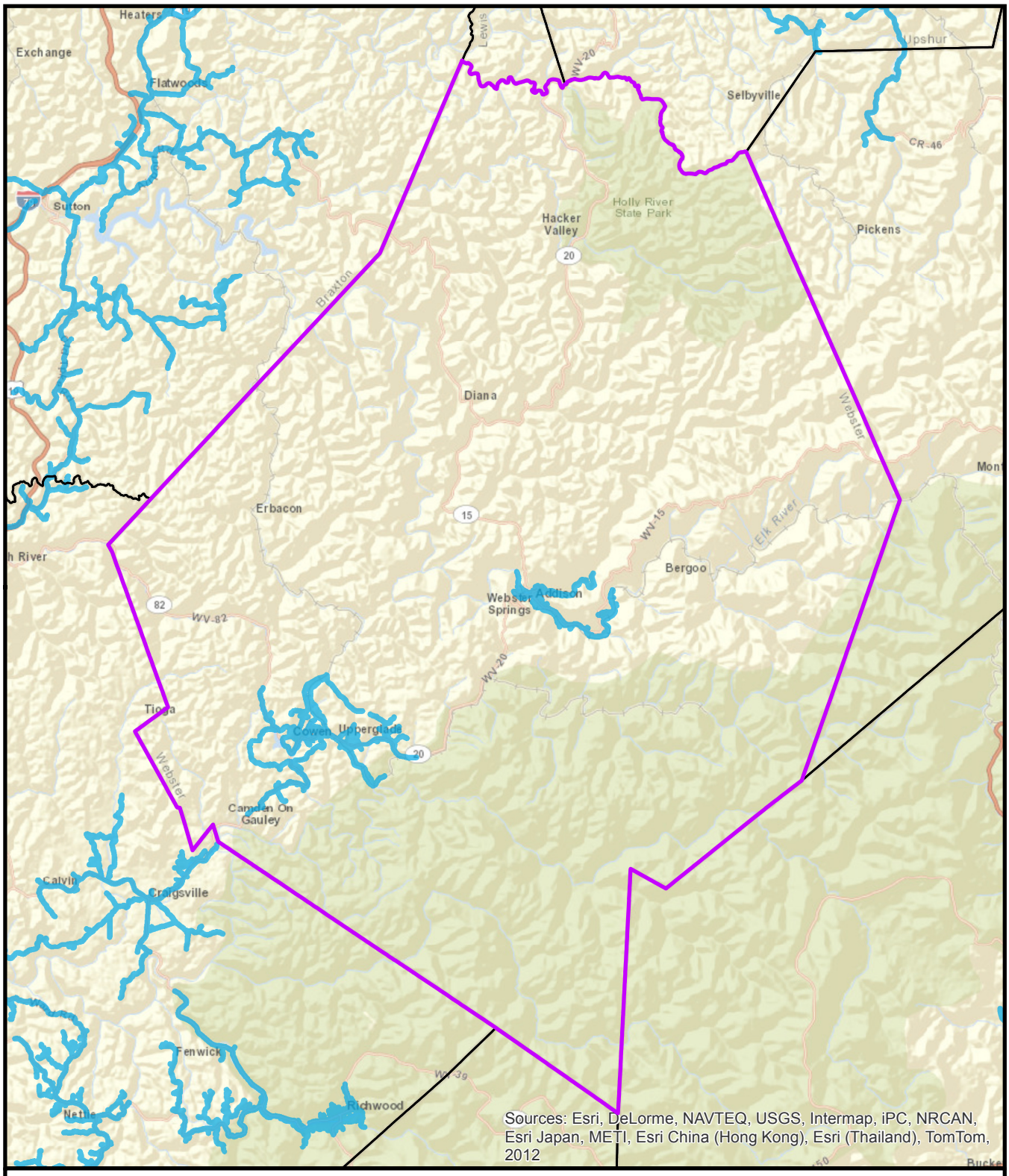
N

0 2.25 4.5 9 Miles

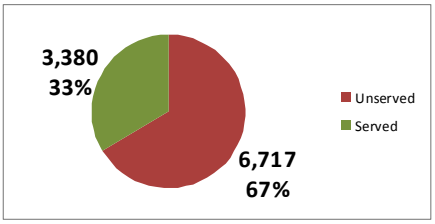
Served Area

Sewer Service Area
Wayne County

West Virginia
Infrastructure & Jobs
Development Council



Distribution of Service to Structures



N

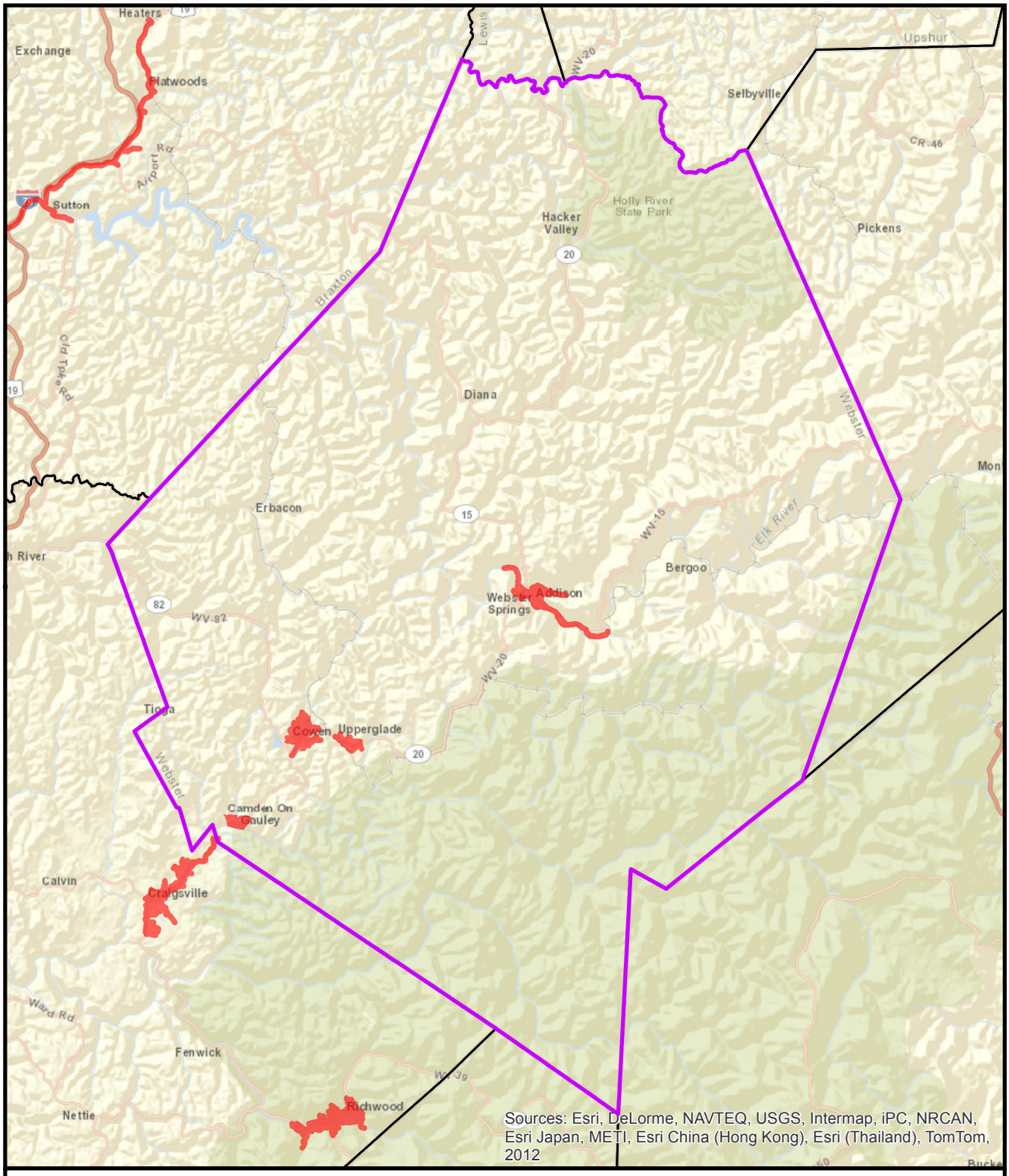
0 2 4 8 Miles

Served Area

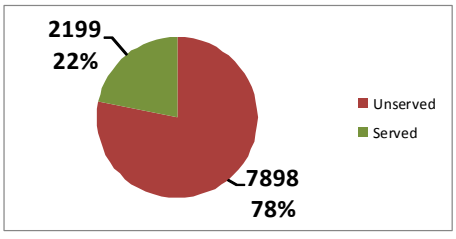
Water Service Area
Webster County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

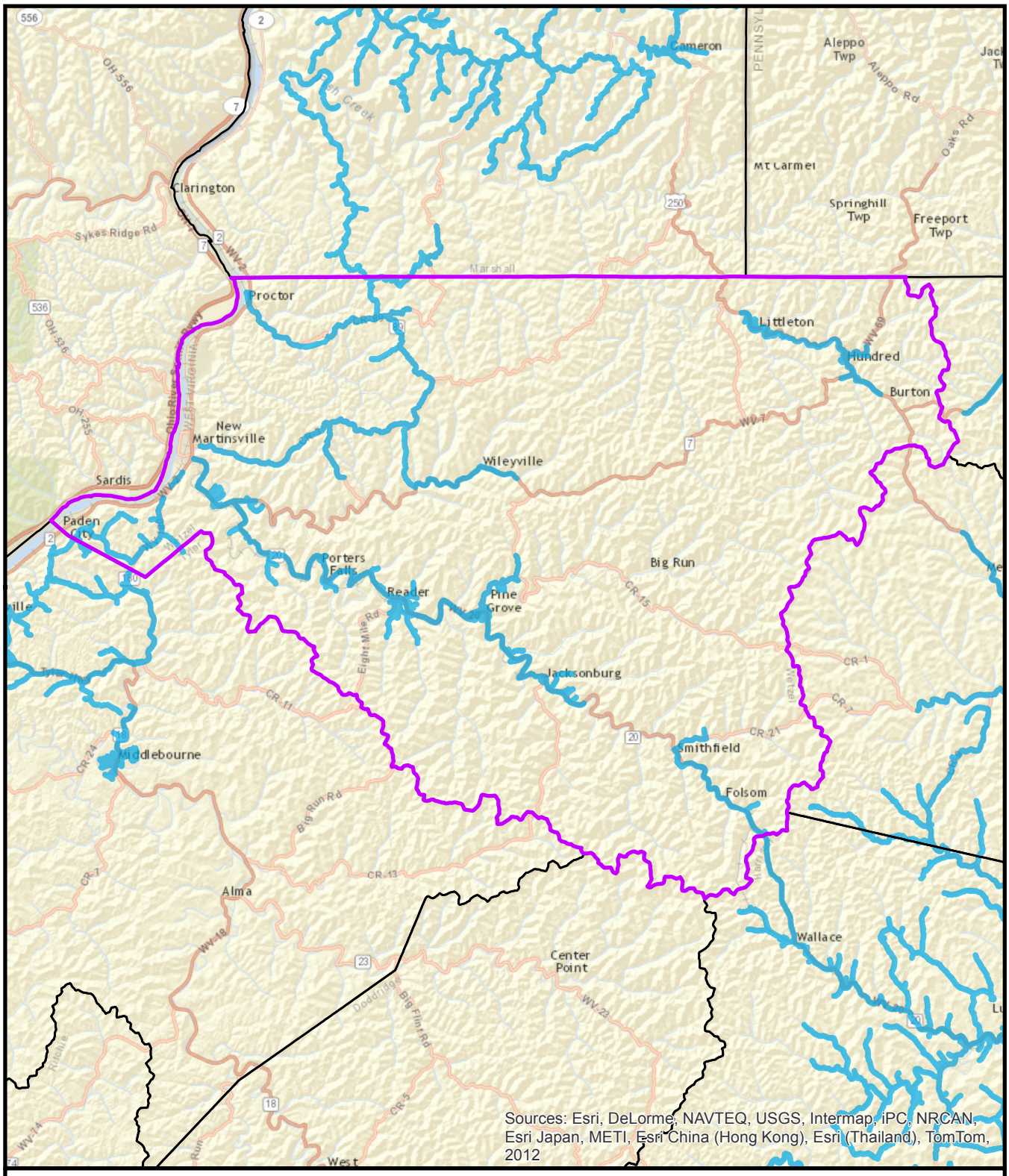
0 2 4 8 Miles

Served Area

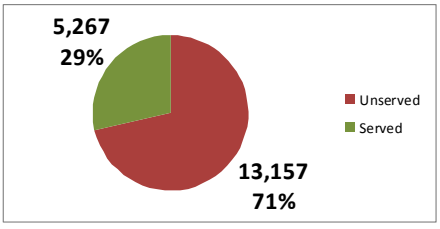
Sewer Service Area
Webster County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

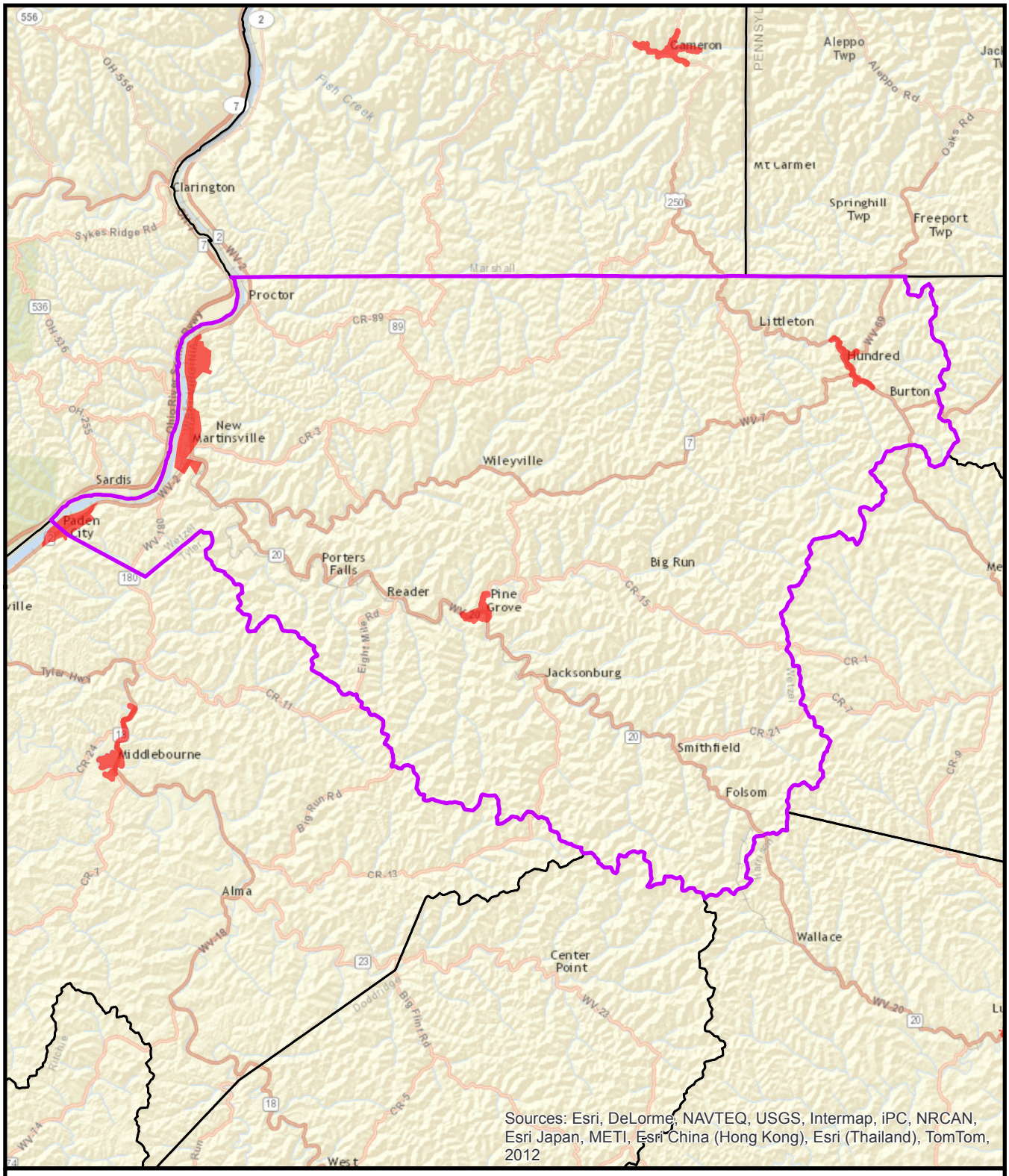
0 2 4 8 Miles

Served Area

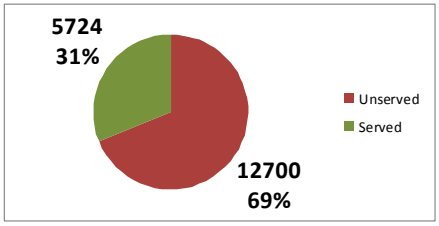
Water Service Area
Wetzel County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

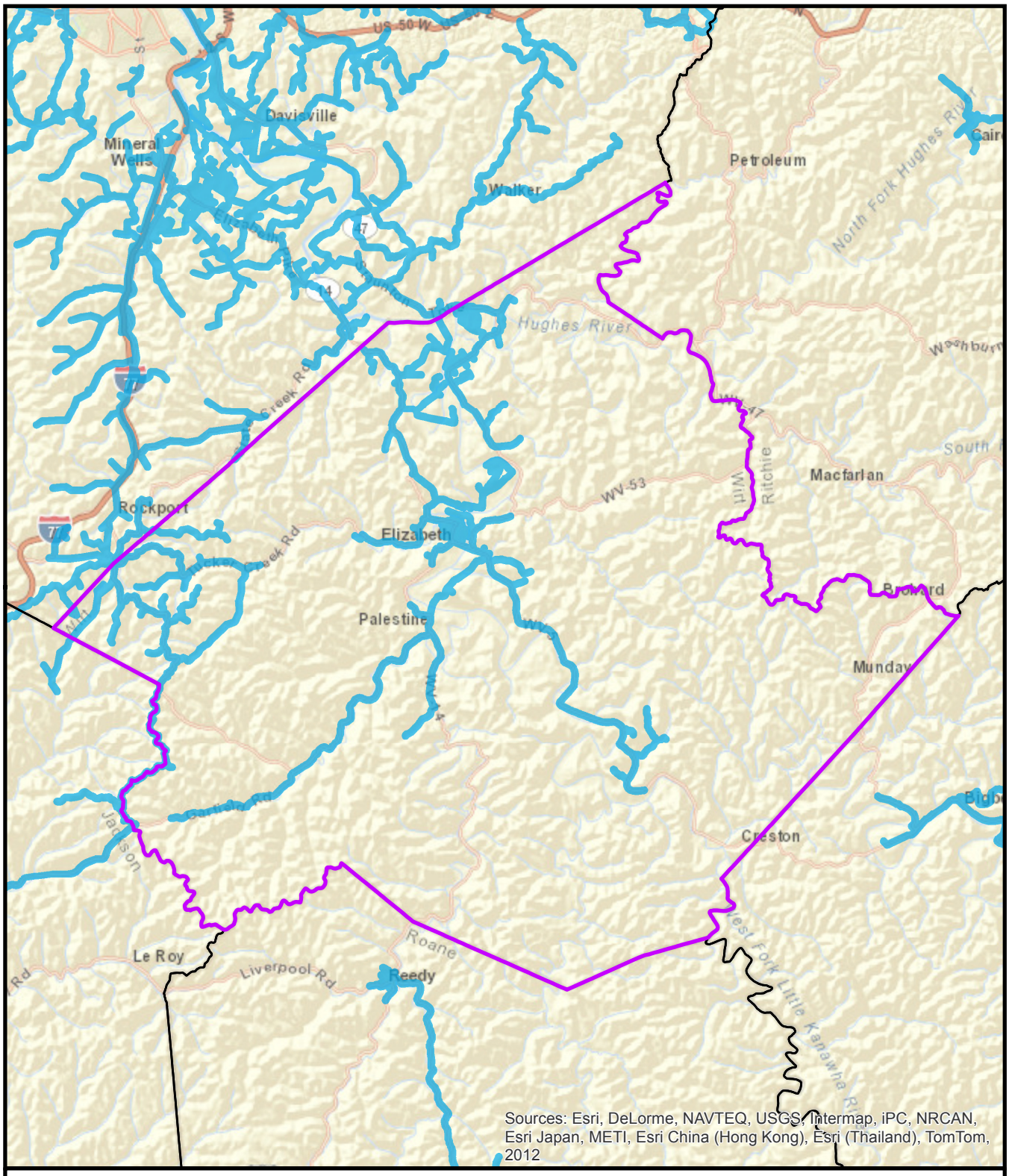
0 2 4 8 Miles

Served Area

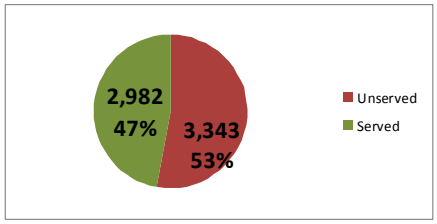
Sewer Service Area
Wetzel County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

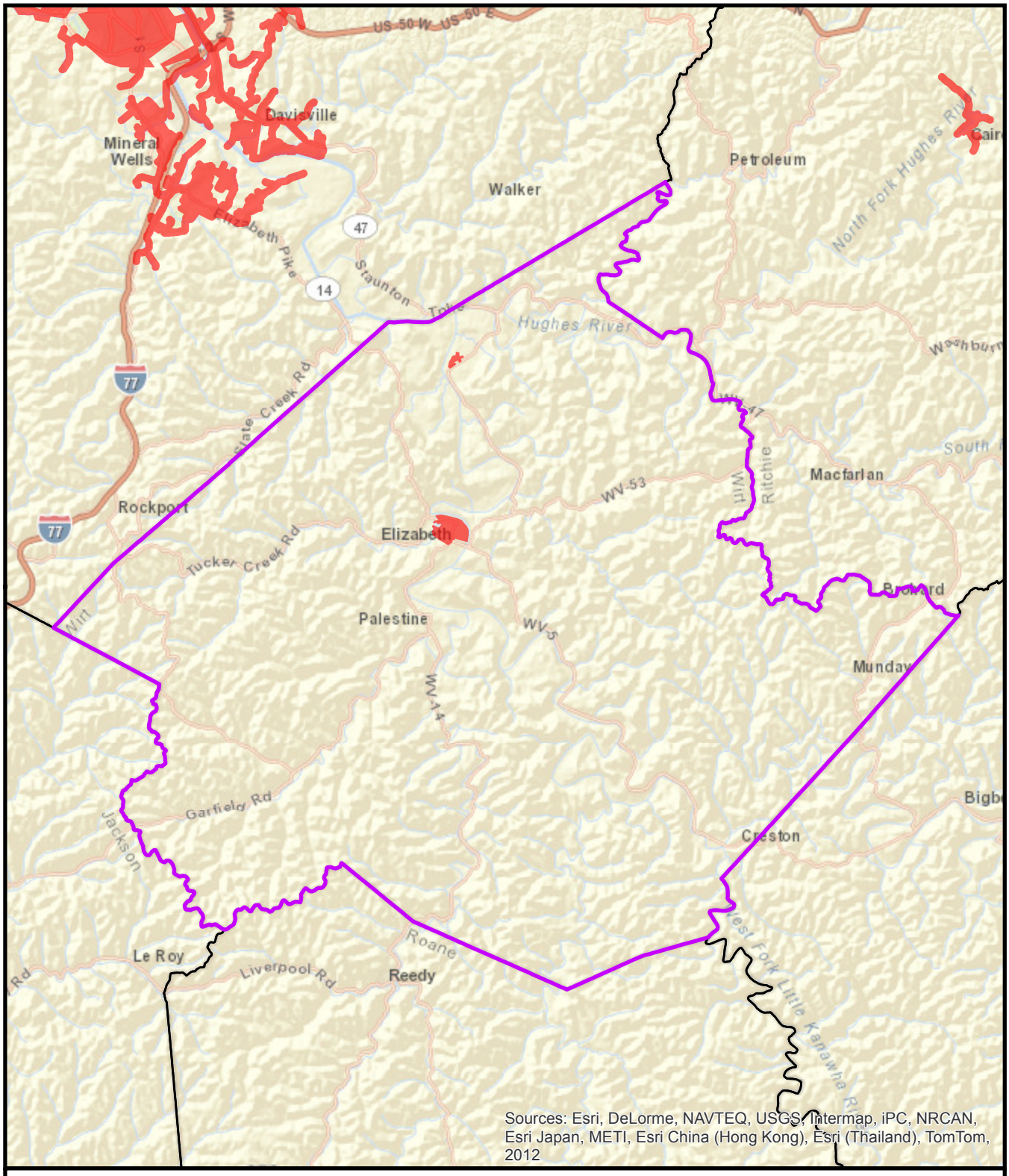
0 1.5 3 6 Miles

Served Area

Water Service Area
Wirt County

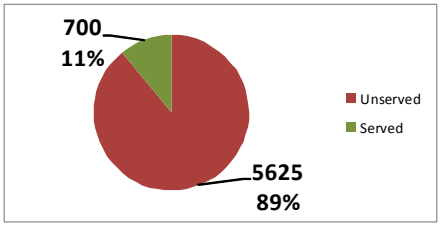
West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2012

Distribution of Service to Structures



N

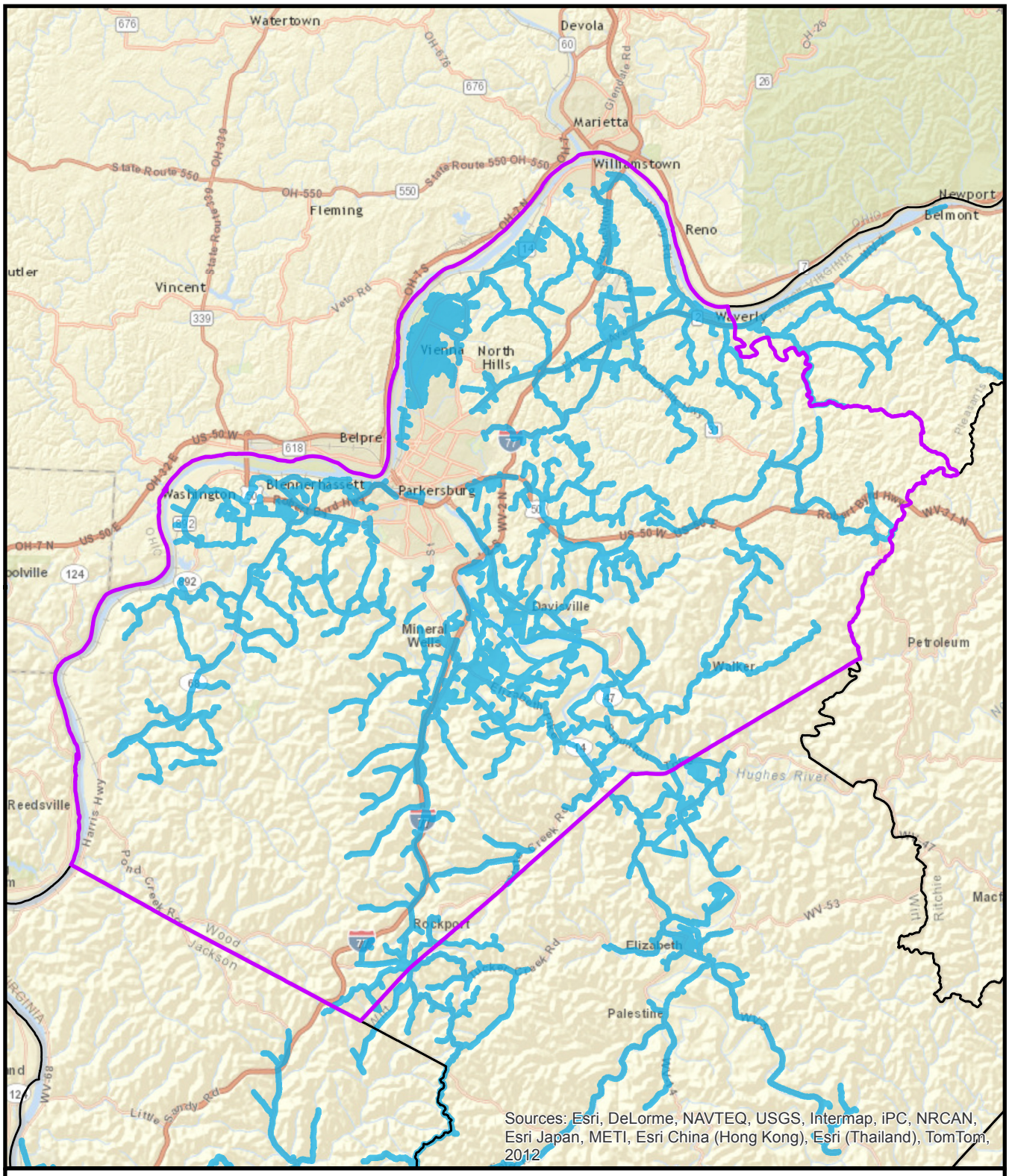
0 1.5 3 6 Miles

Served Area

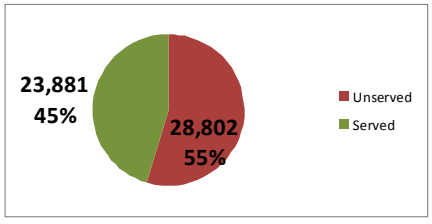
Sewer Service Area
Wirt County

West Virginia
Infrastructure & Jobs Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



N

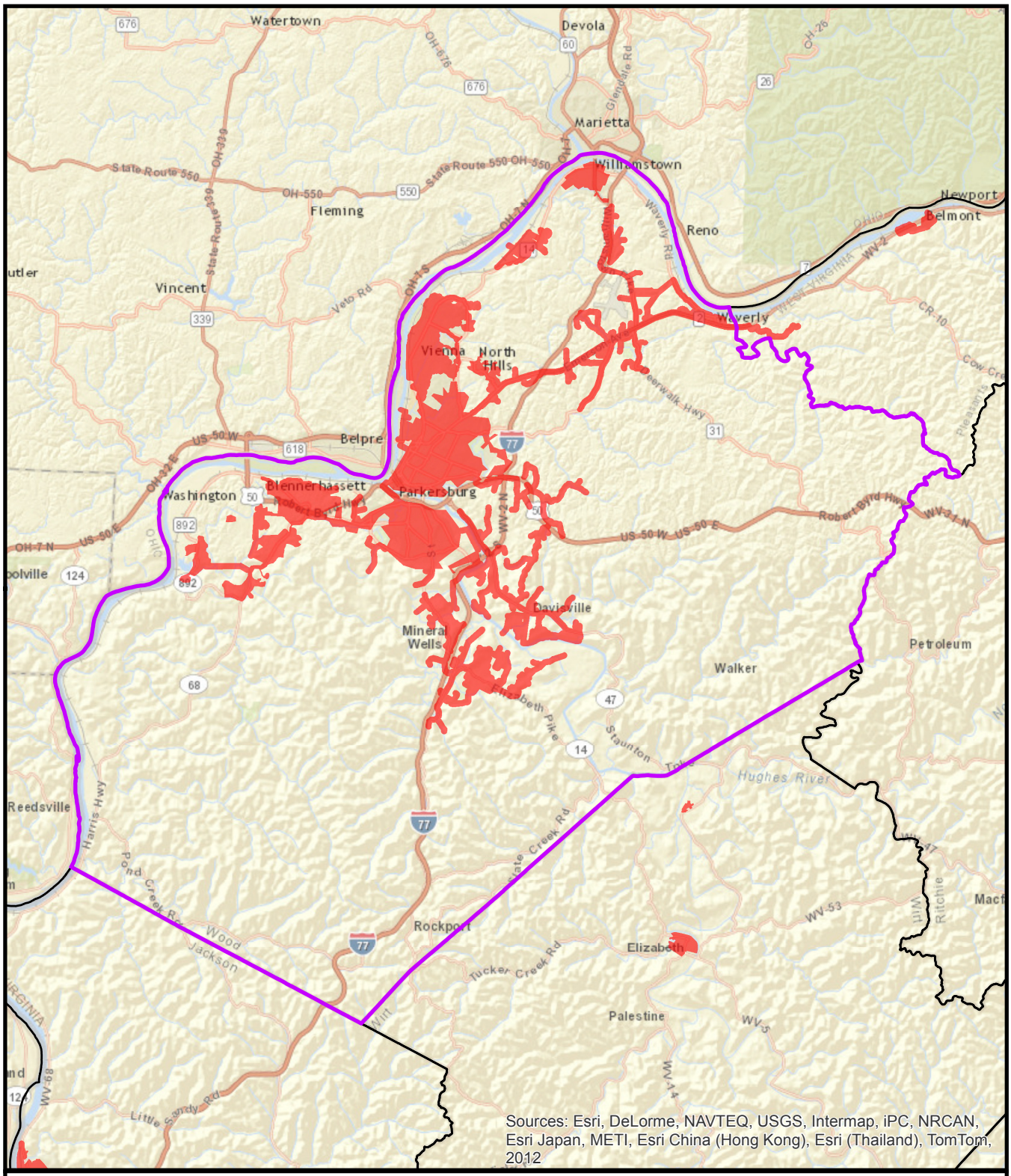
0 1.75 3.5 7 Miles

Served Area

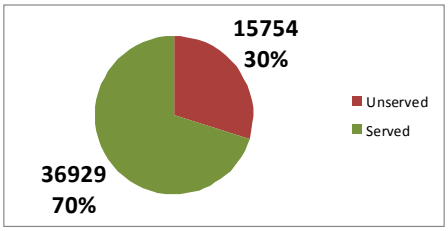
Water Service Area
Wood County

West Virginia
Infrastructure & Jobs
Development Council

2014 IJDC Needs Assessment



Distribution of Service to Structures



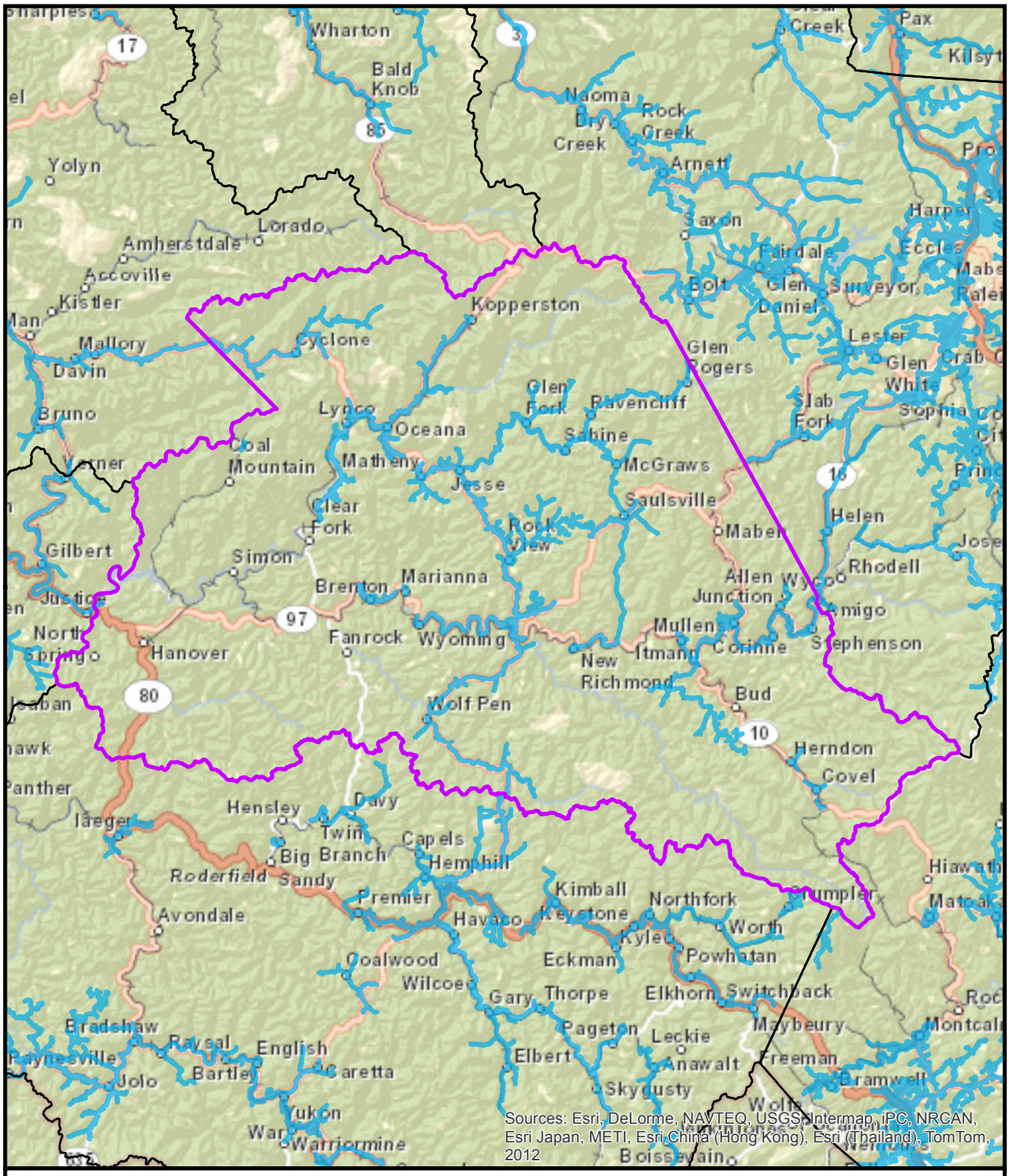
N

0 1.75 3.5 7 Miles

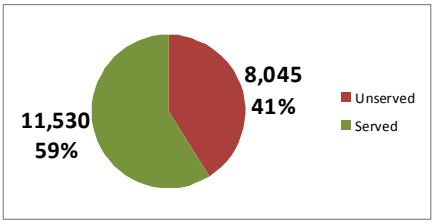
Served Area

Sewer Service Area
Wood County

West Virginia
Infrastructure & Jobs
Development Council



Distribution of Service to Structures



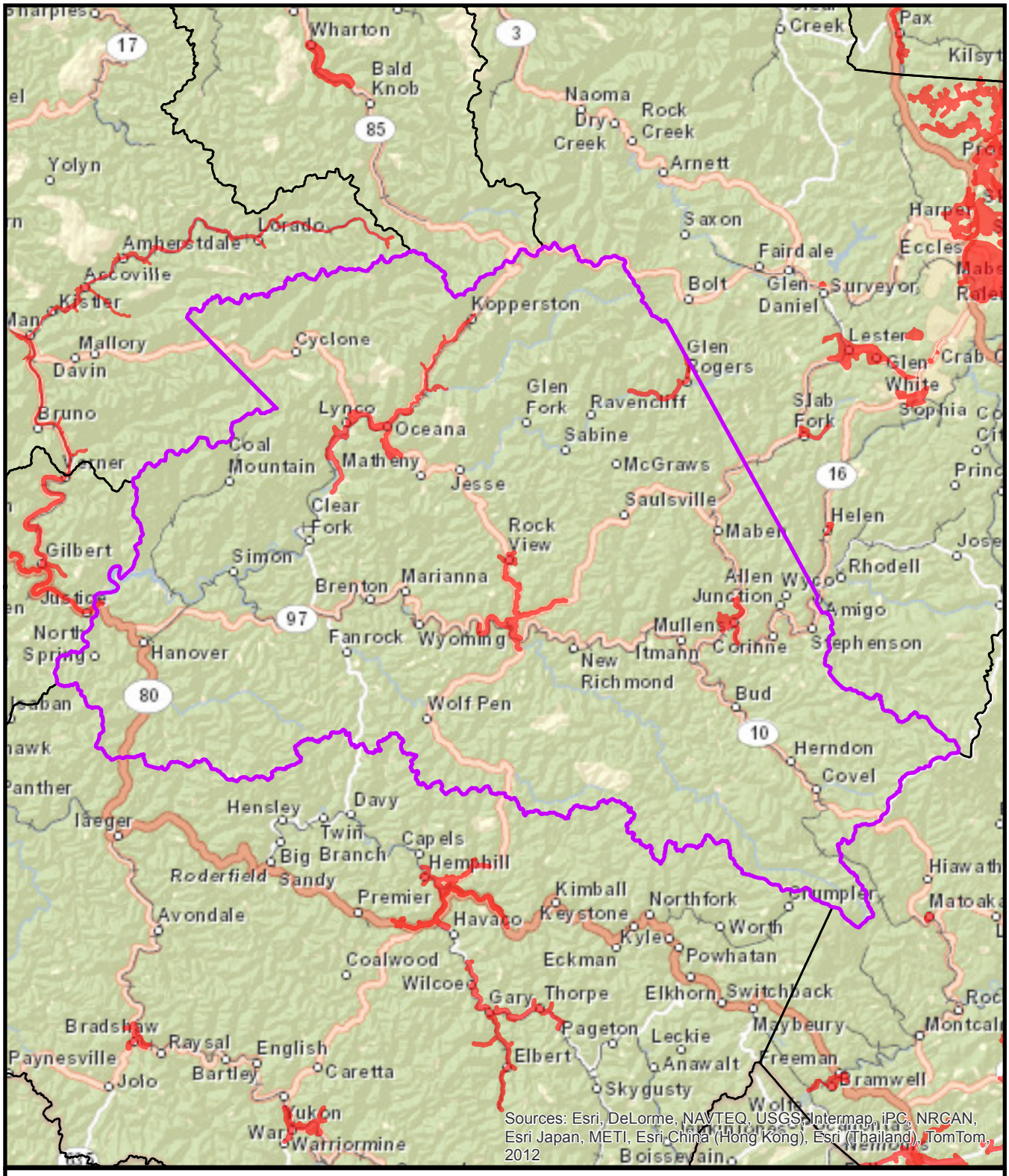
N

0 2.25 4.5 9 Miles

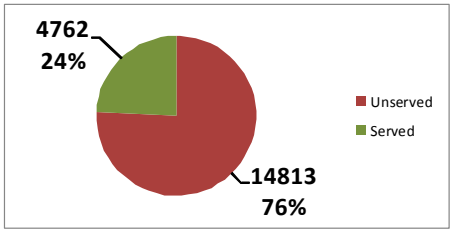
Served Area

Water Service Area
Wyoming County

West Virginia
Infrastructure & Jobs Development Council



Distribution of Service to Structures



N

0 2.25 4.5 9 Miles

Served Area

Sewer Service Area
Wyoming County

West Virginia
Infrastructure & Jobs Development Council