# Appendix A:
# TRENDS AND FORCES

*An assessment of existing conditions and forecasted trends*

UPDATED January 9, 2017

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# KEY FINDINGS

Wood County is a predominantly agricultural county located south of Toledo and Lucas County. Its location along the I-75 corridor puts Wood County in a unique situation that suggests a need to balance its agricultural base with growing residential and commercial pressures. The key findings from an assessment of the existing conditions and forecasted trends in Wood County and the surrounding region are highlighted below.

- Population growth trends for the Toledo MSA are generally flat, with the 2015 regional population of 606,000 just about 2,000 people less than the 1970 population of 608,000. As Lucas County loses population, Wood County gains it, shifting a greater share of regional population towards Wood County in the future.
- While Lucas County is experiencing a current decline in population (a loss of 48,000 people since its peak in 1975) and a long term decline in employment, forecasts for Wood County anticipate steady population and employment growth through 2050. This presents a significant opportunity for Wood County.
- Significant recent growth is visible in Perrysburg and the adjacent townships (Middleton, Perrysburg) along the I-75 corridor. As residential growth is anticipated to continue over the planning horizon , it will be critical to have a clear vision for the townships experiencing the greatest demand. Considerations about redevelopment and inter-jurisdictional development agreements may be needed to clearly implement the vision presented in the future land use plan.
- While the urban/suburban parts of Wood County are experiencing expanding greenfield growth pressures, shifts in the rural and village populations are generally on a decline. Factors such as land consolidation into corporate operations, average age of farmers and declining housing conditions in some of the villages have contributed to this decline.
- Some villages in Wood County are reporting significant recent changes in population and households, both positive and negative. This could be indicative of a shift in rural population from farmsteads, but is also likely supported by recent investment in water and sanitary sewer infrastructure to remedy failing septic systems in the areas near the villages. It is important to recognize this trend and provide a land use framework that supports this shift.
- Increasing land value for agricultural parcels, especially in transitional areas of the Wood County adjacent to Bowling Green, Perrysburg, and North Baltimore, could result in a shift of land use from agricultural to residential or commercial. Recognizing the critical agricultural zones in Wood County and encouraging continued agricultural uses will be important to maintaining the agrarian way of life in the county.
- The CSX inland port in Henry Township is a potential catalyst for shipping and distribution operations in the southern portions of the county. Further examination of utility and service capacities and interchange design with I-75 in the North Baltimore/Cygnet area will be necessary to capitalize on this potential.
- Four private gas transmission pipelines have been proposed to transect portions of

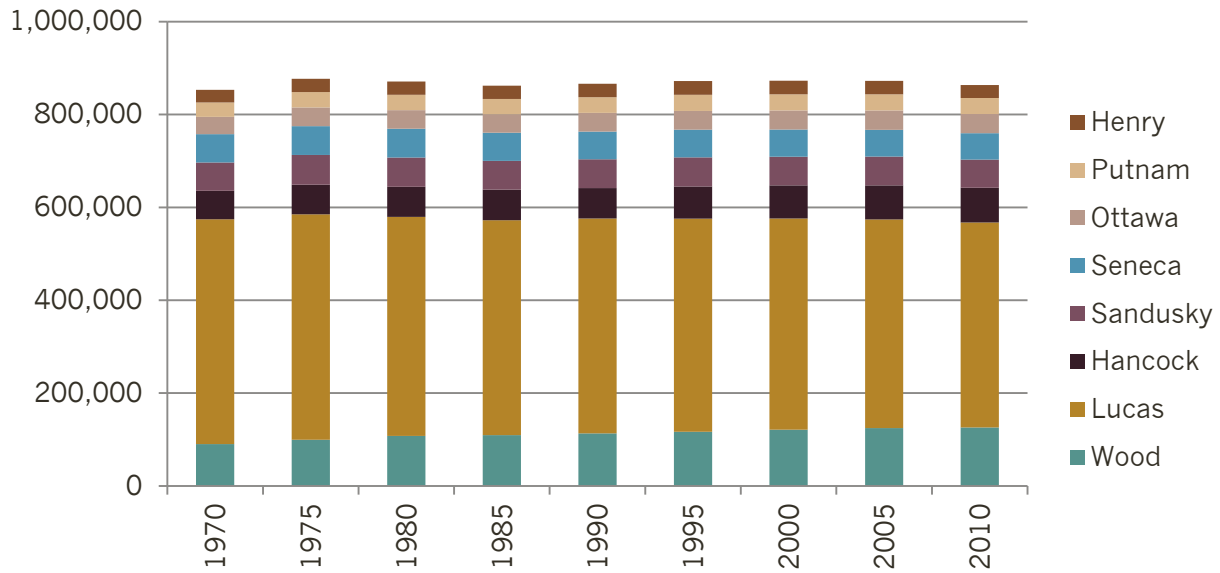
Wood County. These projects are in various stages of proposal and all have different routes or easements. Wood County has taken a position to establish an energy corridor to prevent multiple pipelines from crisscrossing the county in a random network. Further examination of preferred corridors will need to be considered in land use plan.

- The county's surface water is managed by a complex system of ditches and natural waterways. Assessment of developments impact on this system is necessary.
- Federally mandated sewer service areas and failing wells and septic systems as well as increased suburban growth pressures have resulted in expansion of sanitary sewer and potable water services to various areas of the county creating capacity for growth where there were once limitations.
- Agricultural runoff and other non-point source pollution contribute to the algae bloom in Lake Erie and other sediment levels in our region's water ways. In addition to agricultural preservation of prime farmlands, and development impact assessment on the county's drainage/stormwater systems, it will also be important to establish management practices for the riparian corridors and floodways in the county.

# POPULATION

## Historic and Current Population

Historically Wood County and surrounding counties, as a region, have recorded overall growth in population with intermittent periods of growth and decline. Despite the regional ups and downs, Wood County has maintained a gradual but steady population increase. The region includes Lucas County to the north which has recorded a steady decline in population since 1975. On the other hand, Hancock County to the south has recorded a small but positive population growth.




| COUNTY | TOTAL POPULATION | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1970 | 1975 | 1980 | 1985 | 1990 | 1995 | 2000 | 2005 | 2010 |
| **Wood** | 125,942 | 130,332 | 133,523 | 136,719 | 139,776 | 142,378 | 144,418 | 146,003 | 147,298 |
| **Lucas** | 441,589 | 435,625 | 435,279 | 434,701 | 433,459 | 430,636 | 426,027 | 420,079 | 413,348 |
| **Hancock** | 74,675 | 76,278 | 77,834 | 79,379 | 80,832 | 82,009 | 82,852 | 83,428 | 83,833 |
| **Sandusky** | 60,909 | 60,200 | 60,675 | 61,121 | 61,476 | 61,607 | 61,477 | 61,145 | 60,688 |
| **Seneca** | 56,621 | 55,904 | 56,082 | 56,231 | 56,293 | 56,149 | 55,770 | 55,210 | 54,542 |
| **Ottawa** | 41,399 | 41,227 | 41,561 | 41,876 | 42,129 | 42,228 | 42,148 | 41,930 | 41,626 |
| **Putnam** | 34,446 | 34,109 | 34,283 | 34,436 | 34,534 | 34,501 | 34,320 | 34,024 | 33,656 |
| **Henry** | 28,102 | 28,139 | 28,361 | 28,568 | 28,733 | 28,793 | 28,732 | 28,576 | 28,362 |
| **Total** | **863,683** | **861,814** | **867,598** | **873,031** | **877,232** | **878,301** | **875,744** | **870,395** | **863,353** |

*Figure 1: Comparative Population Trends for Wood County and adjacent counties (Source: Census 2010 and American Community Survey 2014)*

Since the 2010 census, Wood County has grown about 3.3% in population, which is significantly higher than the State of Ohio and surrounding counties. Lucas County, including the City of Toledo, shrank 1.5% in population between 2010 and 2014. According to migration trends published by the Ohio Development Services Agency in 2014, a significant portion of the regional in-migration to Wood County is from Lucas County.

In terms of population density, Lucas County is the most densely populated in the region with 1,296 persons per square mile. Wood County is sparsely populated in comparison to Lucas County and the State of Ohio.

| | Ohio | Wood County | Lucas County | Henry County | Putnam County | Hancock County | Seneca County | Sandusky County | Ottawa County |
|---|---|---|---|---|---|---|---|---|---|
| Population estimates, 2014 | 11,594,163 | 129,590 | 435,286 | 27,937 | 34,171 | 75,337 | 55,669 | 60,179 | 41,154 |
| Population, Census, 2010 | 11,536,504 | 125,488 | 441,815 | 28,215 | 34,499 | 74,782 | 56,745 | 60,944 | 41,428 |
| Population, percent change - 2010 to 2014 | 0.5 | 3.3 | -1.5 | -1.0 | -1.0 | 0.7 | -1.9 | -1.3 | -0.7 |
| Population per square mile, 2010 | 282.30 | 203.30 | 1,296.20 | 67.80 | 71.50 | 140.70 | 103.00 | 149.20 | 162.50 |
| Land area in square miles, 2010 | 40,860.69 | 617.21 | 340.86 | 416.01 | 482.52 | 531.36 | 551.02 | 408.45 | 254.92 |

*Figure 2: Comparative Population Trends for Wood County and adjacent counties (Source: Census 2010 and American Community Survey 2014)*

According to the 2010 Census, the City of Bowling Green and Perrysburg host almost 40% of the county population. In 2010, the City of Bowling Green had a population of 30,028, which was 23.93% of the county population, and the City of Perrysburg had a population of 20,623, which was 16.43% of the county population in 2010.

Compared to the 2000 Census population, the City of Perrysburg grew 21.71% in population which is significantly higher than the population change in the City of Bowling Green which only grew 1.32%. Perrysburg Township reported a 8.09% decline in population for the same period. This indicates significant growth pressure in the City of Perrysburg and Perrysburg Township.

Haskins village and Middleton Township have both reported significant population increase between 2000 and 2010. On the other hand, Perry and Milton townships reported substantial declines in population between 2000 and 2010. In Milton Township, the decline in population can be attributed to Milton Center and Custar village.

| | 2010 | 2000 | Change | % | | 2010 | 2000 | Change | % |
|---|---|---|---|---|---|---|---|---|---|
| **Cities** | | | | | | | | | |
| Bowling Green | 30,028 | 29,636 | 392 | 1.32% | | | | | |
| Perrysburg | 20,623 | 16,945 | 3,678 | 21.71% | | | | | |
| Rossford | 6,293 | 6,406 | -113 | -1.76% | | | | | |
| Northwood | 5,265 | 5,471 | -206 | -3.77% | | | | | |
| Fostoria | 1,038 | 842 | 196 | 23.28% | | | | | |
| **Cities Total** | **63,247** | **59,300** | **3,947** | **6.66%** | | | | | |
| **Townships** | | | | | **Villages** | | | | |
| Perrysburg | 12,512 | 13,613 | -1,101 | -8.09% | | | | | |
| Lake | 10,972 | 10,350 | 622 | 6.01% | Walbridge | 3,019 | 2,546 | 473 | 18.58% |
| | | | | | Millbury | 1,200 | 1,161 | 39 | 3.36% |
| Middleton | 4,454 | 2,598 | 1,856 | 71.44% | Haskins | 1,188 | 638 | 550 | 86.21% |
| Montgomery | 4,230 | 4,505 | -275 | -6.10% | Bradner | 985 | 1,171 | -186 | -15.88% |
| | | | | | Wayne | 887 | 842 | 45 | 5.34% |
| | | | | | Risingsun | 606 | 620 | -14 | -2.26% |
| Henry | 4,175 | 4,070 | 105 | 2.58% | N Baltimore | 3,432 | 3,361 | 71 | 2.11% |
| Troy | 3,870 | 4,355 | -485 | -11.14% | Luckey | 1,012 | 998 | 14 | 1.40% |
| Freedom | 2,727 | 2,695 | 32 | 1.19% | Pemberville | 1,371 | 1,365 | 6 | 0.44% |
| Bloom | 2,609 | 2,535 | 74 | 2.92% | Bloomdale | 678 | 724 | -46 | -6.35% |
| | | | | | Cygnet | 597 | 564 | 33 | 5.85% |
| | | | | | Bairdstown | 130 | 130 | | |
| Weston | 2,336 | 2,274 | 62 | 2.73% | Weston | 1,590 | 1,659 | -69 | -4.16% |
| Washington | 1,841 | 1,688 | 153 | 9.06% | Tontogany | 367 | 364 | 3 | 0.82% |
| Liberty | 1,766 | 1,862 | -96 | -5.16% | Portage | 438 | 428 | 10 | 2.34% |
| Plain | 1,663 | 1,706 | -43 | -2.52% | | | | | |
| Portage | 1,614 | 1,516 | 98 | 6.46% | Jerry City | 427 | 453 | -26 | -5.74% |
| Grand Rapids | 1,607 | 1,631 | -24 | -1.47% | Grand Rapids | 965 | 1,002 | -37 | -3.69% |
| Perry | 1,605 | 1,934 | -329 | -17.01% | West Millgrove | 174 | 78 | 96 | 123.08% |
| Webster | 1,283 | 1,277 | 6 | 0.47% | | | | | |
| Center | 1,206 | 1,246 | -40 | -3.21% | | | | | |
| Milton | 979 | 1,159 | -180 | -15.53% | Custar | 179 | 208 | -29 | -13.94% |
| | | | | | Milton Center | 144 | 195 | -51 | -26.15% |
| Jackson | 792 | 751 | 41 | 5.46% | Hoytville | 303 | 296 | 7 | 2.36% |
| **Twnships Total** | **62,241** | **61,765** | **476** | **0.77%** | **Villages Total** | **19,692** | **18,803** | **889** | **4.73%** |
| **County Total** | **125,488** | **121,065** | **4,423** | **3.65%** | | | | | |

*Notes: Village population is also reported as part of township population.*
*West Millgrove village population has an error in reporting for 2000.*

*Figure 3: Comparative Population Trends for Places in Wood County (Source: Census 2010 and Census 2000)*

According to 2010 Census data, the highest population densities in Wood County were in the cities and villages with Perrysburg and Bowling Green reporting over 1,000 persons per square mile in the core. The townships are mostly agricultural and reported about 10 to 100 persons per square mile. In additions to the townships, the city of Northwood reported low population densities in its industrial pockets.

Between 2010 and 2014, several townships reported declining populations with the exception of block groups in townships located in proximity to the cities, especially Perrysburg and Bowling Green, and townships along the I-75 corridor.

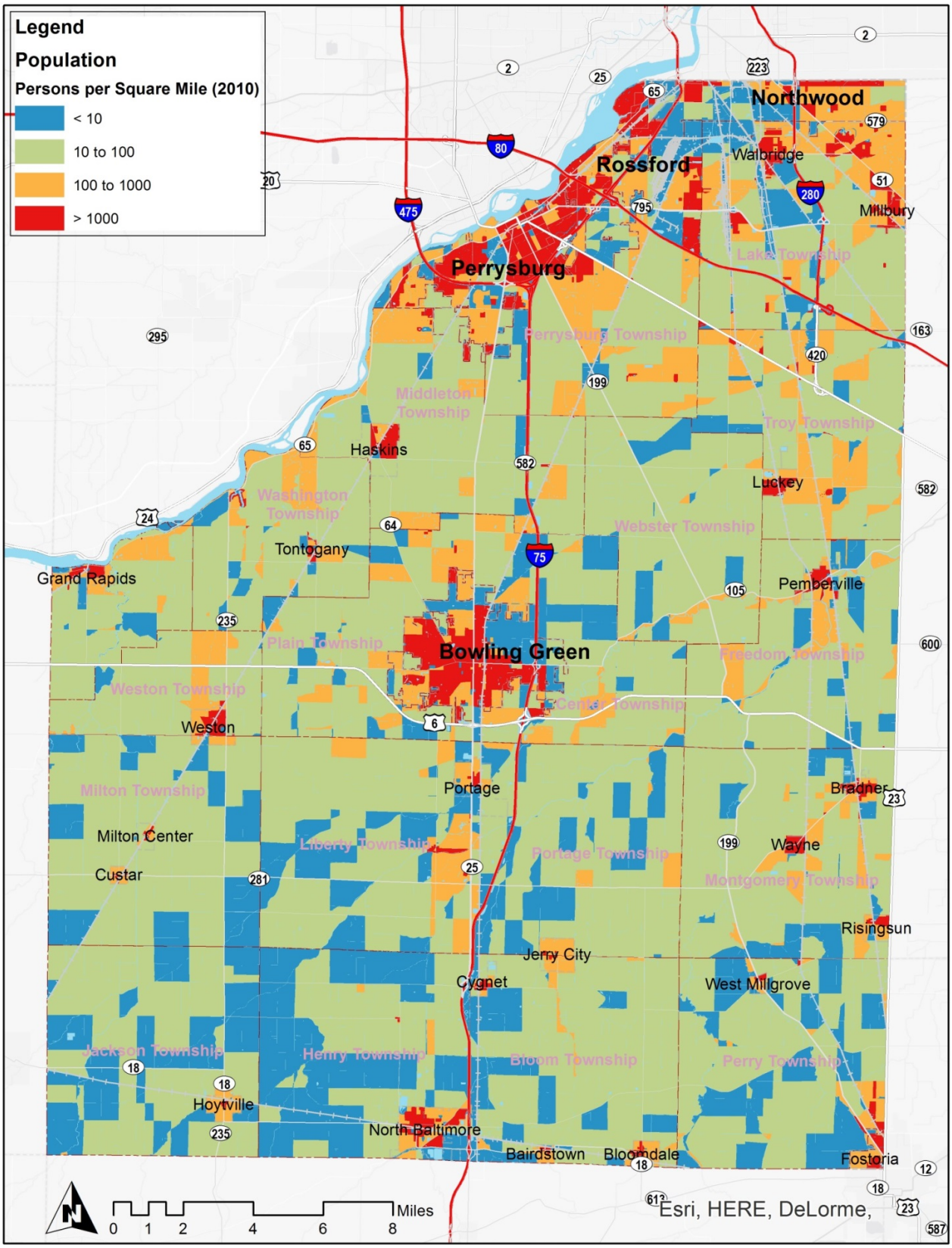



*Figure 4: Population Density (Block Level) for Wood County (Source: Census 2010)*

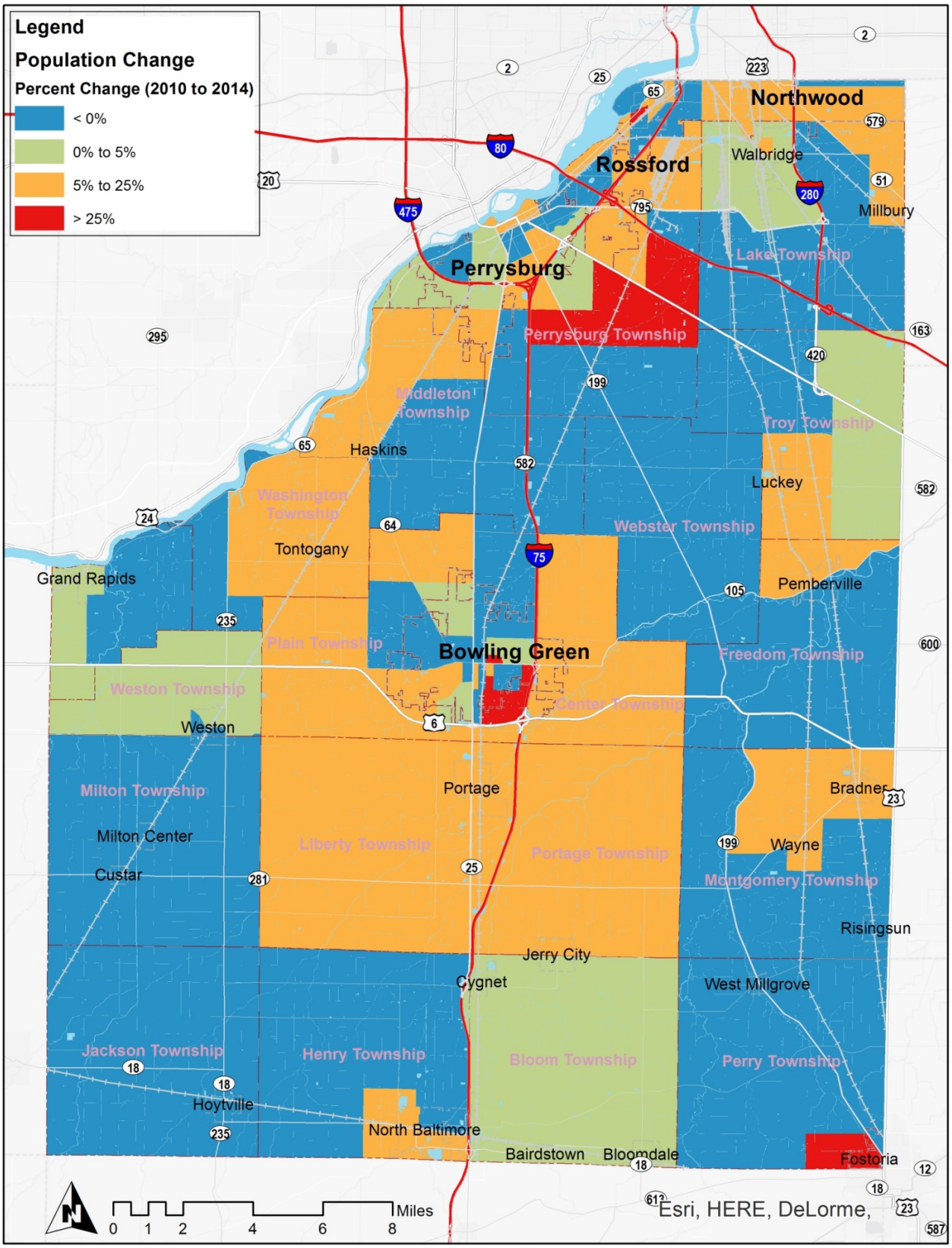
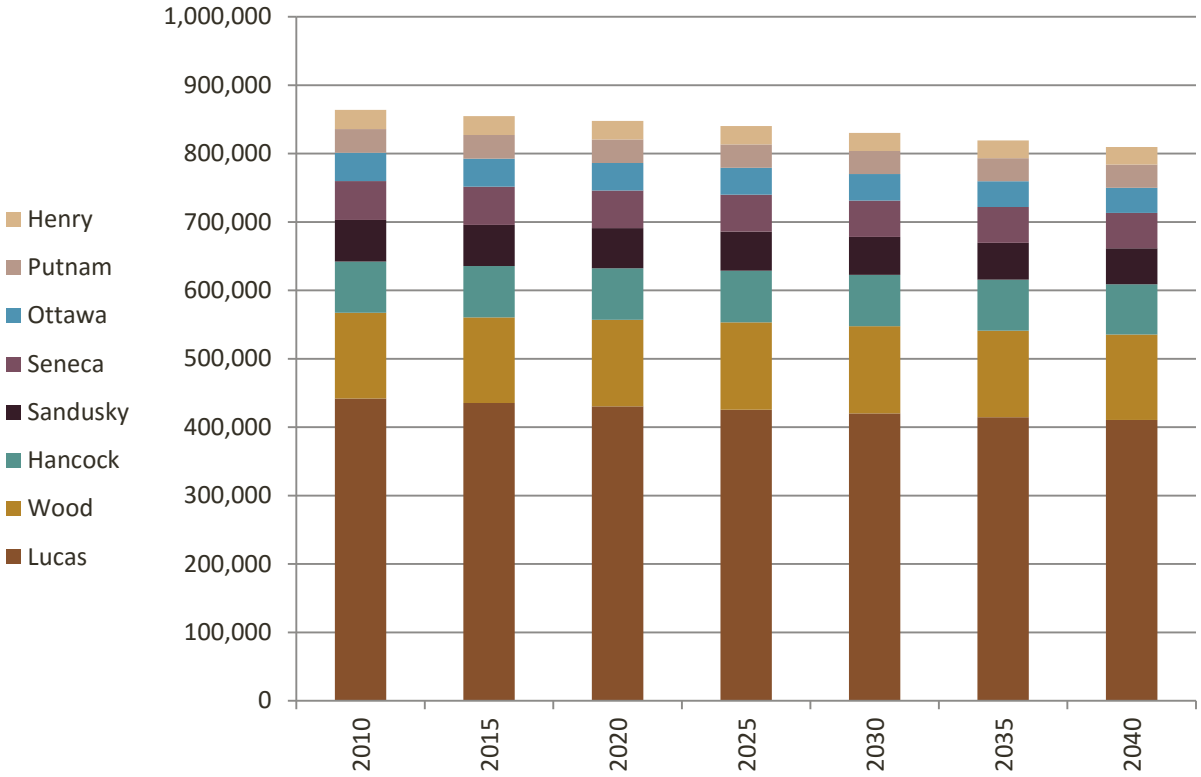



*Figure 5: Population Change (Block Group Level) for Wood County (Source: Census 2010 and American Community Survey 2014)*

# Population Forecasts

Both Woods and Poole Economics Inc. and Ohio Development Services Agency have prepared population forecasts for Wood County.

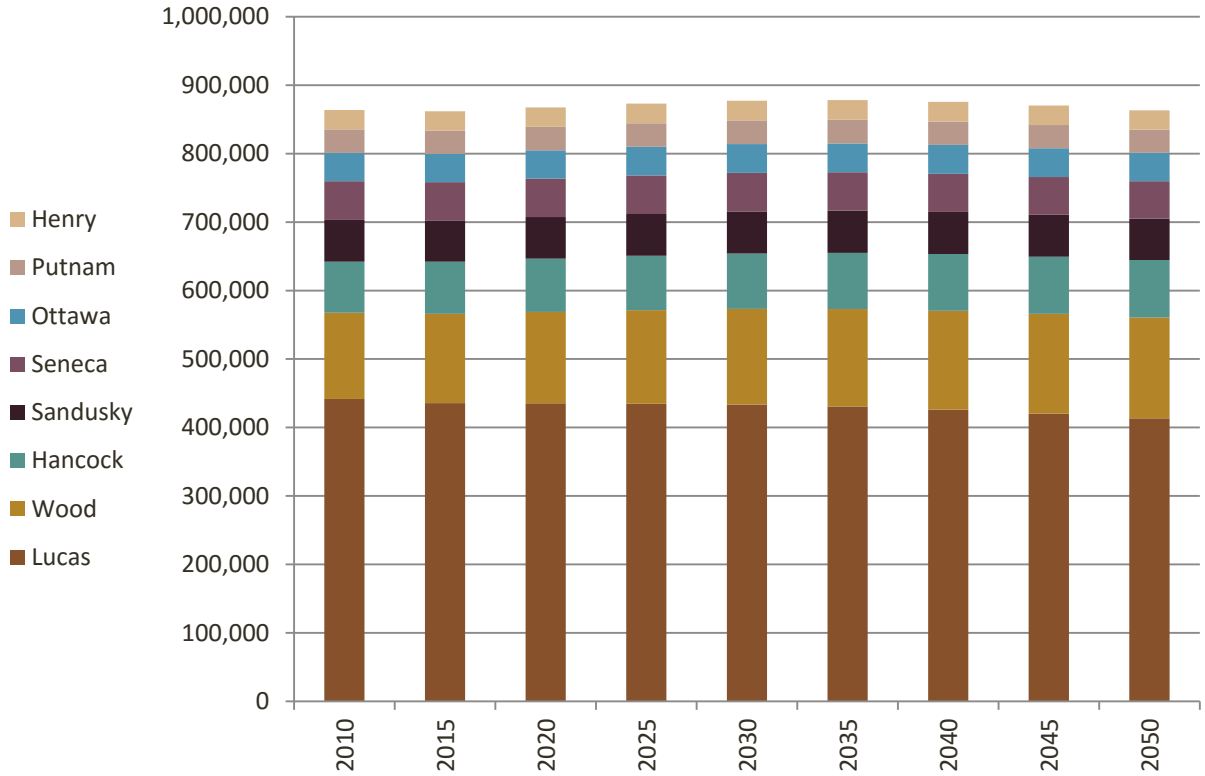
The Ohio Development Services Agency forecast (to 2040) anticipates gradually declining population growth for the region, especially Lucas County, and a moderate population growth for Wood County.




| | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 |
|---|---|---|---|---|---|---|---|
| **Lucas** | 441,815 | 435,300 | 430,450 | 425,620 | 420,080 | 414,630 | 410,570 |
| **Wood** | 125,488 | 125,220 | 126,540 | 127,530 | 127,600 | 126,400 | 124,910 |
| **Hancock** | 74,782 | 75,130 | 75,330 | 75,620 | 75,140 | 74,670 | 73,500 |
| **Sandusky** | 60,944 | 59,960 | 58,670 | 57,040 | 55,440 | 53,910 | 52,640 |
| **Seneca** | 56,745 | 56,030 | 55,050 | 54,030 | 53,040 | 52,190 | 51,560 |
| **Ottawa** | 41,428 | 40,860 | 40,100 | 39,420 | 38,720 | 37,780 | 36,880 |
| **Putnam** | 34,499 | 34,550 | 34,430 | 34,180 | 33,860 | 33,700 | 33,860 |
| **Henry** | 28,215 | 27,690 | 27,230 | 26,760 | 26,360 | 26,010 | 25,810 |

*Figure 6: Comparative Population Forecast for Wood County and Adjoining Counties (Source: ODSA 2012)*

The Woods and Poole forecast to 2050 anticipates an initial increase in regional population followed by a gradual decline back to about 2010 population levels. While this forecast anticipates a sharper decline in population for Lucas County, it holds the population growth rate for Wood County fairly steady.

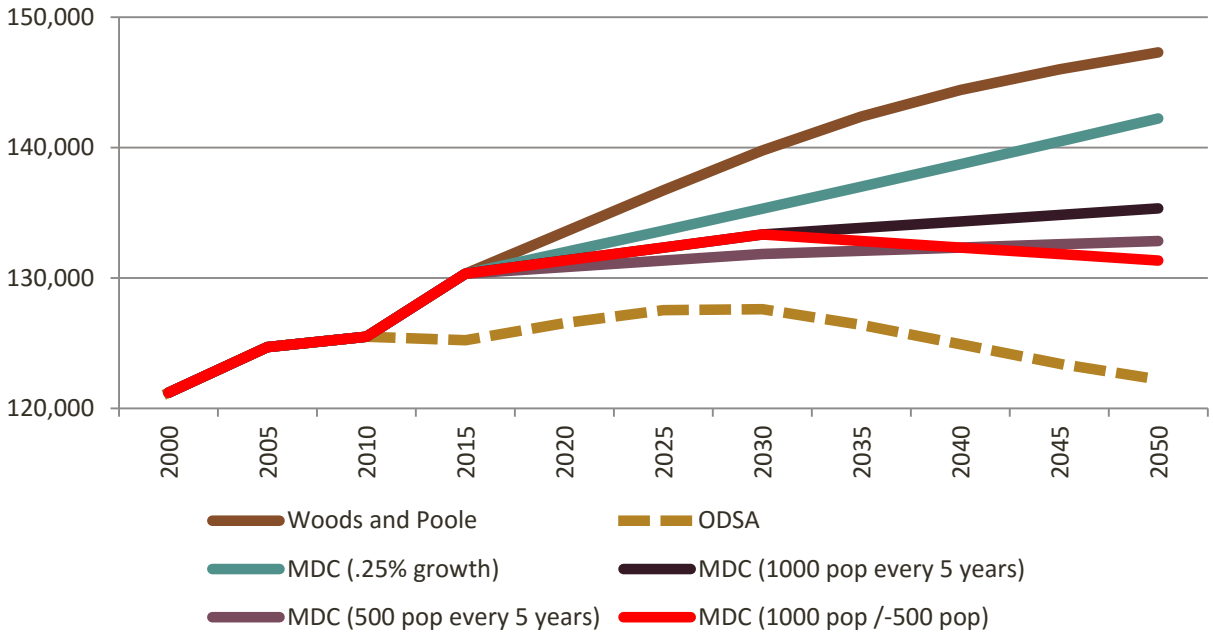



| | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|---|
| **Lucas** | 441,589 | 435,625 | 435,279 | 434,701 | 433,459 | 430,636 | 426,027 | 420,079 | 413,348 |
| **Wood** | 125,942 | 130,332 | 133,523 | 136,719 | 139,776 | 142,378 | 144,418 | 146,003 | 147,298 |
| **Hancock** | 74,675 | 76,278 | 77,834 | 79,379 | 80,832 | 82,009 | 82,852 | 83,428 | 83,833 |
| **Sandusky** | 60,909 | 60,200 | 60,675 | 61,121 | 61,476 | 61,607 | 61,477 | 61,145 | 60,688 |
| **Seneca** | 56,621 | 55,904 | 56,082 | 56,231 | 56,293 | 56,149 | 55,770 | 55,210 | 54,542 |
| **Ottawa** | 41,399 | 41,227 | 41,561 | 41,876 | 42,129 | 42,228 | 42,148 | 41,930 | 41,626 |
| **Putnam** | 34,446 | 34,109 | 34,283 | 34,436 | 34,534 | 34,501 | 34,320 | 34,024 | 33,656 |
| **Henry** | 28,102 | 28,139 | 28,361 | 28,568 | 28,733 | 28,793 | 28,732 | 28,576 | 28,362 |

*Figure 7: Comparative Population Forecast for Wood County and Adjoining Counties (Source: Woods & Poole Economics 2015)*

Based on the ODSA and Woods & Poole forecast, McBride Dale Clarion prepared adjusted forecasts that established several population growth scenarios for Wood County. Given that the ODSA forecasts for 2015 do not keep pace with population trends in the last 5 years, this forecast will not be used in this assessment.

Using the Woods & Poole population forecast as the high scenario, the MDC scenarios explored a steady .25% population growth from 2015 through 2050, addition of 1,000 persons every 5 years through 2050, addition of 500 persons every 5 years through 2050, and a combination of adding 1,000 persons every 5 years through 2030 followed by losing 500 persons every five years through 2050.




| Forecasts | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|---|
| Woods and Poole | 125,488 | 130,332 | 133,523 | 136,719 | 139,776 | 142,378 | 144,418 | 146,003 | 147,298 |
| MDC (.25% growth) | 125,488 | 130,332 | 131,969 | 133,627 | 135,306 | 137,006 | 138,727 | 140,470 | 142,234 |
| MDC (1000 pop every 5 years) | 125,488 | 130,332 | 131,332 | 132,332 | 133,332 | 133,832 | 134,332 | 134,832 | 135,332 |
| MDC (500 pop every 5 years) | 125,488 | 130,332 | 130,832 | 131,332 | 131,832 | 132,082 | 132,332 | 132,582 | 132,832 |
| MDC (1000 pop /-500 pop) | 125,488 | 130,332 | 131,332 | 132,332 | 133,332 | 132,832 | 132,332 | 131,832 | 131,332 |
| ODSA | 0 | 0 | 126,540 | 127,530 | 127,600 | 126,400 | 124,910 | 123,420 | 122,220 |

*Figure 8: Comparative Population Forecasts for Wood County (Source: Woods & Poole Economics 2015, Ohio Development Services Agency 2012, and MDC 2016)*

# Household Trends

According to 2010 Census data, Wood County reported approximately 49,561 households. At 2.46 persons per household, household size in Wood County is consistent with the State of Ohio and most adjoining counties.

| | Ohio | Wood County | Lucas County | Henry County | Putnam County | Hancock County | Seneca County | Sandusky County | Ottawa County |
|---|---|---|---|---|---|---|---|---|---|
| Households, 2010-2014 | 4,570,015 | 49,561 | 178,121 | 11,075 | 13,006 | 30,795 | 21,539 | 23,831 | 17,366 |
| Persons per household, 2010-2014 | 2.46 | 2.45 | 2.40 | 2.49 | 2.61 | 2.38 | 2.47 | 2.48 | 2.33 |

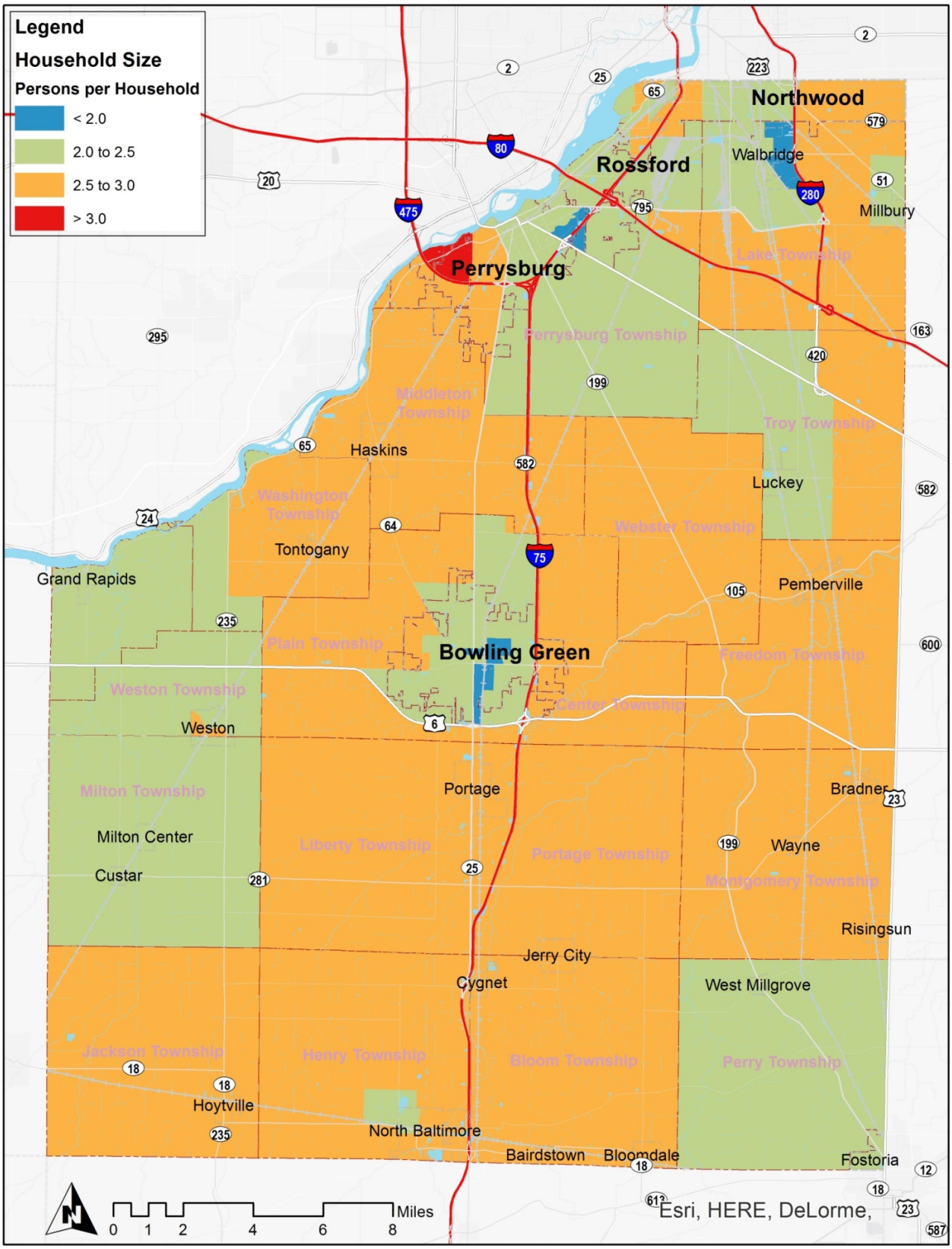
*Figure 9: Comparative Household Trends for Wood County and adjacent counties (Source: Census 2010 and American Community Survey 2014)*

Combined, one and two person households make up over 60% of Wood County's households. Three and four person households combined closely follow with approximately 30% of households. Wood County also has a significantThis translates into an average household size of 2.45 persons per household.

| Household Size | Number | Percent |
|---|---|---|
| 1-person household | 13502 | 27.53% |
| 2-person household | 17417 | 35.51% |
| 3-person household | 7589 | 15.47% |
| 4-person household | 6424 | 13.10% |
| 5-person household | 2844 | 5.80% |
| 6-person household | 871 | 1.78% |
| 7-or-more-person household | 396 | 0.81% |

*Figure 10: Household Size for Wood County (Source: Census 2010)*

Household sizes are notably high along the I-75 corridor, especially in the City of Perrysburg, where some block groups along I-75 and I-475 have household sizes of 3.0 or higher. On the other hand, the City of Bowling Green with its predominantly student population base has a notably lower household size around 2.0. The City of Northwood and Rossford are fairly consistent with the average household size for Wood County.




*Map 3: Housing Density (Block Group Level) for Wood County (Source: Census 2010)*

# EMPLOYMENT

According to Census and American Community Survey data, Wood County is a significant employer in the region with the exception of Lucas County. Wood County's total employment is approximately a quarter of Lucas County's employment. Total employment in Wood County also shrank by 0.2% between 2012 and 2013 compared to Lucas County and Hancock County which saw a 1.7% increase in total employment for the same time period.

Wood County's civilian labor force employs approximately 66.6% of its 16 years and older population, which is consistent with the State of Ohio and adjoining counties. Wood County's median household income was $52,758 in 2014, which is higher than the State of Ohio and most adjoining counties as is the per capita retail sales of approximately $12,175. Poverty in Wood County is lower than the State of Ohio and Lucas County but higher than Hancock County, which is the third largest in total employment in the region.

| | Ohio | Wood County | Lucas County | Henry County | Putnam County | Hancock County | Seneca County | Sandusky County | Ottawa County |
|---|---|---|---|---|---|---|---|---|---|
| ***Economy*** | | | | | | | | | |
| In civilian labor force, total, percent of population age 16 years+, 2010-2014 | 63.5 | 66.6 | 63.4 | 65.5 | 69.8 | 66.6 | 62.6 | 63.8 | 60.5 |
| Total accommodation and food services sales, 2007 ($1,000) | 17,780 | 191 | 729 | 18 | 23 | 131 | 47 | 76 | 101 |
| Total health care and social assistance receipts/revenue, 2007 ($1,000,000) | 65,882 | 338 | 3,670 | 75 | 39 | 443 | 171 | 256 | 111 |
| Total manufacturer's shipments, 2007 ($1,000,000) | 295,891 | 4,416 | 20,076 | 2,284 | 1,985 | 3,757 | 1,409 | 3,373 | 763 |
| Total merchant wholesaler sales, 2007 ($1,000,000) | 135,575 | 1,505 | 4,944 | 318 | 172 | D | D | D | 72 |
| Total retail sales, 2007 ($1,000,000) | 138,816 | 1,522 | 5,830 | 268 | 252 | 1,093 | 459 | 598 | 461 |
| Total retail sales per capita, 2007 | 12,049 | 12,175 | 12,493 | 9,260 | 7,300 | 14,703 | 8,087 | 9,845 | 11,195 |
| ***Transportation*** | | | | | | | | | |
| Mean travel time to work (minutes), workers age 16 years+, 2010-2014 | 23.1 | 20.0 | 20.1 | 21.5 | 22.8 | 17 | 20.6 | 19.7 | 22.9 |
| ***Income and Poverty*** | | | | | | | | | |
| Median household | 48,849 | 52,758 | 41,751 | 52,526 | 61,036 | 50,166 | 44,947 | 46,099 | 53,599 |

| | Ohio | Wood County | Lucas County | Henry County | Putnam County | Hancock County | Seneca County | Sandusky County | Ottawa County |
|---|---|---|---|---|---|---|---|---|---|
| income (in 2014 dollars), 2010-2014 | | | | | | | | | |
| Per capita income in past 12 months (in 2014 dollars), 2010-2014 | 26,520 | 27,210 | 24,683 | 24,604 | 26,060 | 26,612 | 22,552 | 23,236 | 28,703 |
| Persons in poverty, percent | 15.8 | 13.5 | 20.7 | 10.2 | 7.8 | 12.7 | 17.5 | 14.5 | 10.1 |
| **Businesses** | | | | | | | | | |
| Total employer establishments, 2013 | 250,117 | 2,722 | 9,599 | 566 | 728 | 1,706 | 1,140 | 1,305 | 1,019 |
| Total employment, 2013 | 4,587,136 | 49,483 | 197,276 | 8,234 | 9,470 | 39,791 | 16,520 | 22,149 | 10,444 |
| Total annual payroll, 2013 ($1,000) | 195,631 | 2,034 | 7,696 | 319 | 324 | 1,714 | 521 | 834 | 416 |
| Total employment, percent change, 2012-2013 | 0.9 | -0.2 | 1.7 | -0.8 | 0.6 | 1.7 | -4.6 | -0.9 | -2.5 |

*Figure 11: Comparative Employment Trends for Wood County and adjacent counties (Source: Census 2010 and American Community Survey 2014)*

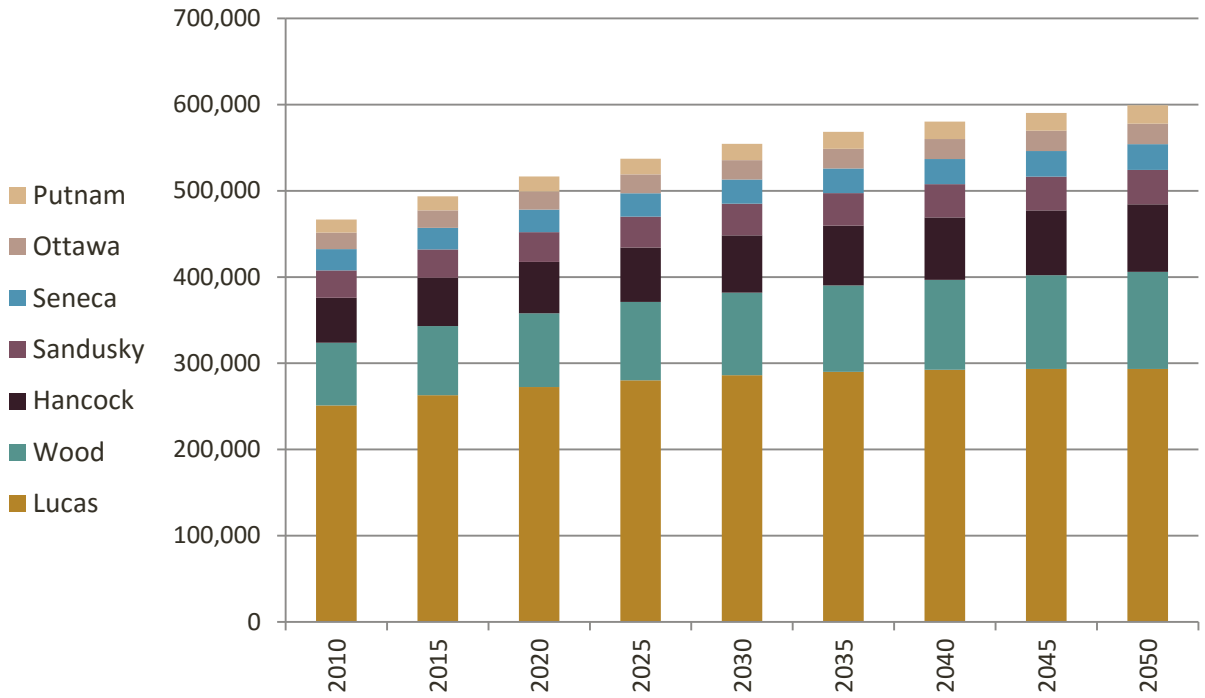
Based on Longitudinal Employment and Housing Dynamics (LEHD) inflow/outflow data, only 36.1% of employed Wood County residents are employment in the county. Approximately one third of employed Wood County residents have employment destinations in Lucas County. Approximately 26.5% of employed Perrysburg city residents and 29.7% of employed Perrysburg township residents work in Toledo, OH. On the other hand, 67.1% of employed Lucas County residents are employed in the county.

| | Ohio | Wood County | Lucas County | Henry County | Putnam County | Hancock County | Seneca County | Sandusky County | Ottawa County |
|---|---|---|---|---|---|---|---|---|---|
| Employed and Living in the selection Area | 96.00% | 33.50% | 60.80% | 47.10% | 57.90% | 46.30% | 56.40% | 49.20% | 51.20% |
| Living and Employed in the selection Area | 95.90% | 36.10% | 67.10% | 38.60% | 36.10% | 57.60% | 39.30% | 44.40% | 34.40% |

*Figure 12: Inflow/Outflow Trends for Wood County and adjacent counties (Source: On The Map/Longitudinal Employment and Housing Dynamics)*

# Employment Forecasts

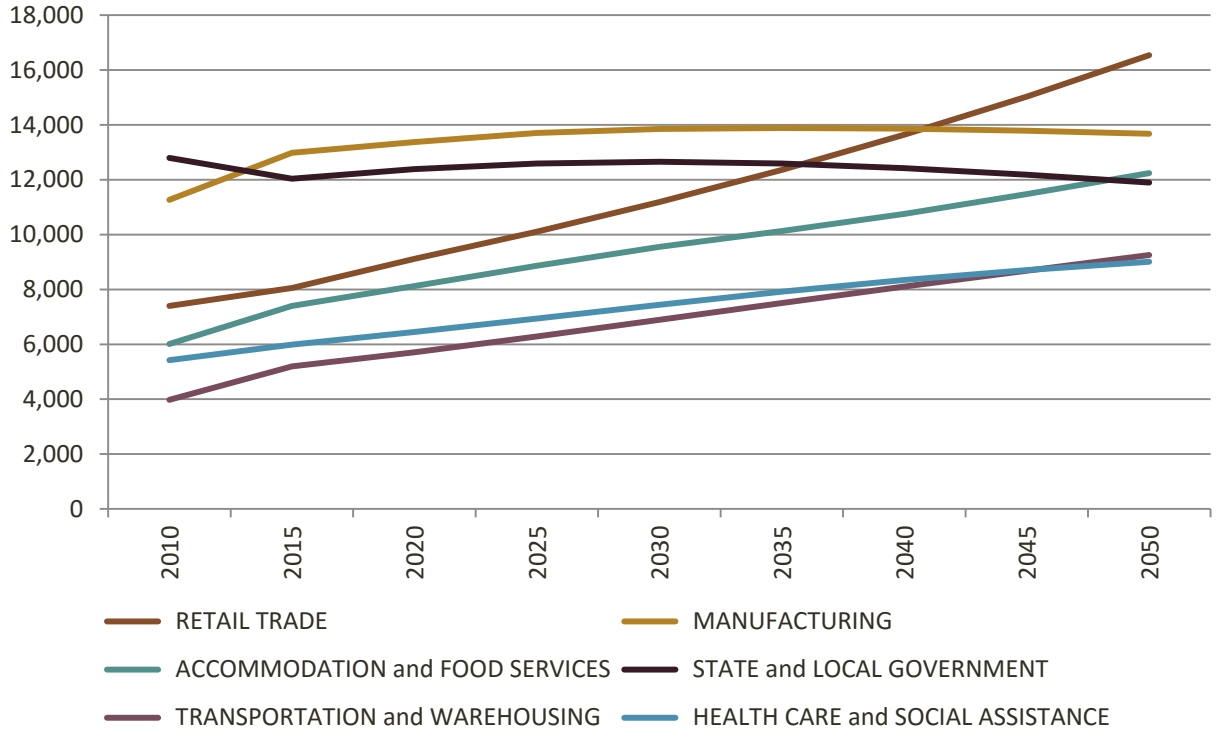
Woods and Poole Economics Inc. has prepared employment forecasts for Wood County through 2050. The Woods and Poole forecast to 2050 anticipates a gradual upswing in regional employment with Lucas County, Wood County and Hancock County, as the largest employment centers in that order. All three counties are located along the I-75 corridor.




| | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|---|
| **Lucas** | 251,023 | 263,008 | 272,417 | 280,295 | 286,228 | 290,125 | 292,443 | 293,478 | 293,382 |
| **Wood** | 72,905 | 80,091 | 85,575 | 90,859 | 95,719 | 100,159 | 104,410 | 108,602 | 112,754 |
| **Hancock** | 52,003 | 56,029 | 59,624 | 63,106 | 66,346 | 69,378 | 72,337 | 75,277 | 78,221 |
| **Sandusky** | 31,786 | 32,834 | 34,372 | 35,740 | 36,851 | 37,747 | 38,515 | 39,200 | 39,823 |
| **Seneca** | 24,626 | 25,146 | 26,215 | 27,175 | 27,954 | 28,572 | 29,089 | 29,543 | 29,954 |
| **Ottawa** | 19,242 | 20,235 | 21,085 | 21,820 | 22,410 | 22,860 | 23,230 | 23,546 | 23,811 |
| **Putnam** | 15,218 | 16,357 | 17,329 | 18,231 | 18,998 | 19,651 | 20,230 | 20,761 | 21,244 |
| **Henry** | 14,763 | 15,469 | 15,826 | 16,092 | 16,235 | 16,277 | 16,251 | 16,180 | 16,070 |

*Figure 13: Comparative Employment Forecasts for Wood County and Adjoining Counties (Source: Woods & Poole Economics 2015)*

For Wood County, the Woods & Poole forecast anticipates steady increase in employment through 2050 with the sharpest increase in retail trade followed by manufacturing. It is anticipated that manufacturing will grow through 2030 followed by a small decline. While state and local government will continue as a major employment sector, the Woods & Poole employment forecast anticipates a gradual decline in employment in this sector.




| | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|---|---|---|
| RETAIL TRADE | 7,397 | 8,052 | 9,113 | 10,104 | 11,183 | 12,360 | 13,639 | 15,030 | 16,541 |
| MANUFACTURING | 11,268 | 12,980 | 13,371 | 13,704 | 13,850 | 13,883 | 13,860 | 13,786 | 13,675 |
| ACCOMMODATION and FOOD SERVICES | 6,012 | 7,399 | 8,121 | 8,863 | 9,551 | 10,131 | 10,754 | 11,476 | 12,239 |
| STATE and LOCAL GOVERNMENT | 12,795 | 12,034 | 12,386 | 12,592 | 12,656 | 12,591 | 12,422 | 12,183 | 11,899 |
| TRANSPORTATION and WAREHOUSING | 3,979 | 5,193 | 5,710 | 6,288 | 6,894 | 7,507 | 8,105 | 8,685 | 9,252 |
| HEALTH CARE and SOCIAL ASSISTANCE | 5,420 | 5,989 | 6,450 | 6,940 | 7,442 | 7,918 | 8,344 | 8,704 | 9,007 |

*Figure 14: Top 5 Employment Sectors for Wood County (Source: Woods & Poole Economics 2015)*

On the other hand, the Woods and Poole employment forecast for Lucas County anticipates a significant decline in manufacturing. Regionally, this decline is counteracted by strong manufacturing employment in Wood County and Hancock County.

# HOUSING

## Existing Inventory of Housing Units

According to 2014 American Community Survey data, Wood County has a housing inventory of 53,840 housing units. Overall Wood County has the highest increase in housing inventory compared to the state and adjoining counties. The 2014 American Community Survey data reported a net gain of approximately 476 housing units in Wood County while Lucas County reported a net loss of housing units between 2010 and 2014. Wood County also has the highest median home value and highest median monthly owner/rent costs but has a low occupancy rate for owner-occupied housing units compared to adjoining counties.

| | Ohio | Wood County | Lucas County | Henry County | Putnam County | Hancock County | Seneca County | Sandusky County | Ottawa County |
|---|---|---|---|---|---|---|---|---|---|
| ***Housing*** | | | | | | | | | |
| Housing units, 2014 | 5,146,933 | 53,840 | 202,107 | 11,917 | 13,782 | 33,273 | 23,932 | 26,222 | 28,014 |
| Housing units, 2010 | 5,127,508 | 53,376 | 202,630 | 11,963 | 13,731 | 33,174 | 24,122 | 26,390 | 27,909 |
| Housing, percent change - 2010 to 2014 | 0.38 | 0.87 | -0.26 | -0.38 | 0.37 | 0.30 | -0.79 | -0.64 | 0.38 |
| Owner-occupied housing unit rate, 2010-2014 | 66.9 | 67.2 | 61.6 | 79.6 | 82.9 | 70.7 | 71.8 | 74.3 | 79.9 |
| Median value of owner-occupied housing units, 2010-2014 | 129,600 | 145,700 | 106,300 | 110,600 | 134,300 | 124,500 | 97,200 | 109,400 | 135,800 |
| Median selected monthly owner costs - with a mortgage, 2010-2014 | 1,274 | 1,356 | 1,206 | 1,140 | 1,115 | 1,196 | 1,002 | 1,109 | 1,228 |
| Median selected monthly owner costs - without a mortgage, 2010-2014 | 442 | 462 | 435 | 428 | 414 | 423 | 375 | 389 | 417 |
| Median gross rent, 2010-2014 | 729 | 726 | 664 | 682 | 692 | 664 | 635 | 623 | 703 |

*Figure 15: Comparative Housing Trends for Wood County and adjacent counties (Source: Census 2010 and American Community Survey 2014)*

# Housing Density

According to 2010 Census data, the highest housing densities in Wood County are in the City of Bowling Green and Perrysburg with some blocks of greater than 5 housing units per acre density. Other cities such as Rossford and Northwood as well as the villages have blocks with greater than 1 housing unit per acre densities. Wood County also has several blocks of industrial and agricultural uses with no housing units recorded. The city of Bowling Green has a public university which also has a housing density of 0 units per acre.

Wood County has increased their overall housing inventory by less than 1% between 2010 and 2014. This change in inventory includes approximately 2,435 housing units added to the inventory, notably in the city of Bowling Green, Northwood, and Perrysburg, and 2,223 housing units that were eliminated from the housing inventory due to aging, deterioration and delinquency. This combined with the population increase points to a change in housing trends in Wood County with increasing household sizes in owner-occupied and renter housing.

The predominant housing type in Wood County is detached 1-unit (detached single family unit) which supports 2 person and larger households. There is also a significant inventory of mobile homes in the county.

| Housing Unit Types | Housing Units | Percent |
|---|---|---|
| 1-unit, detached | 35,162 | 65.6% |
| 1-unit, attached | 1,759 | 3.3% |
| 2 units | 1,432 | 2.7% |
| 3 or 4 units | 2,296 | 4.3% |
| 5 to 9 units | 3,891 | 7.3% |
| 10 to 19 units | 3,178 | 5.9% |
| 20 or more units | 2,507 | 4.7% |
| Mobile home | 3,363 | 6.3% |
| **Total housing units** | **53,588** | |

*Table 16: Housing Unit Types for Wood County (Source: American Community Survey 2014)*

| Number of Bedrooms | Housing Units | Percent |
|---|---|---|
| No bedroom | 566 | 1.1% |
| 1 bedroom | 4926 | 9.2% |
| 2 bedrooms | 13946 | 26.0% |
| 3 bedrooms | 21878 | 40.8% |
| 4 bedrooms | 10508 | 19.6% |
| 5 or more bedrooms | 1764 | 3.3% |
| **Total housing units** | **53,588** | |

*Figure 16: Housing Unit number of Bedrooms for Wood County (Source: American Community Survey 2014)*

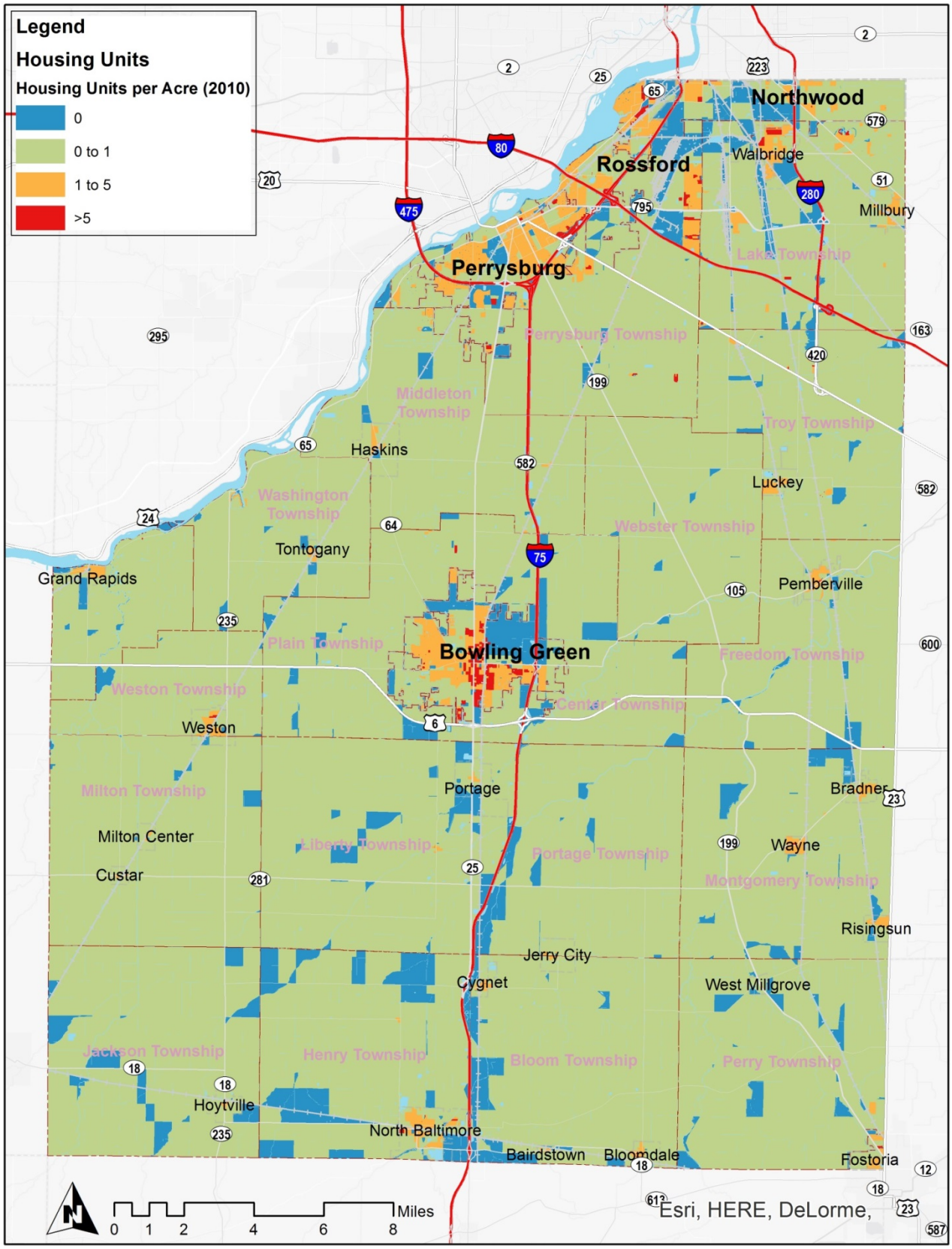



*Figure 17: Housing Density (Block Level) for Wood County (Source: Census 2010)*

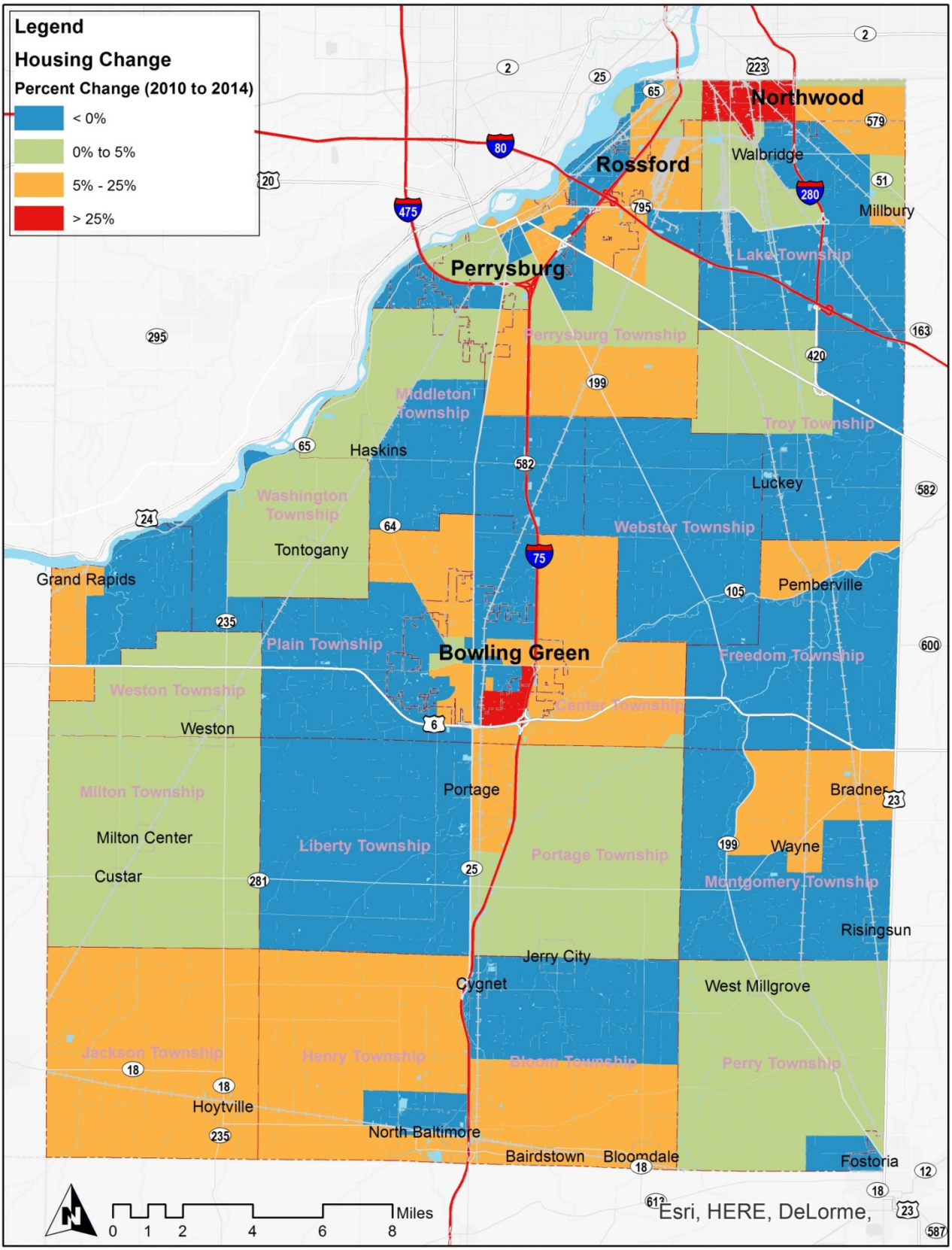



*Figure 18: Housing Change (Block Group Level) for Wood County (Source: Census 2010 and American Community Survey 2014)*

# Occupancy and Tenure

According to 2010 Census and 2014 American Community Survey data, housing vacancy rates in Wood County have been fairly steady between 2010 and 2014. The vacancy rate in 2014 for Wood County was 7.51%. Given the limitations of Census geography, the highest vacancy rates in Wood County are most likely newer housing tracts in the city of Bowling Green and on the periphery of the city of Perrysburg. Other block groups with high vacancy rates are located in largely agricultural areas just north of Hancock County. These townships, specifically Jackson and Henry, show the highest increase in vacancy rates from 2010 to 2014.

In 2014, approximately one third of the occupied housing in Wood County is renter-occupied. As with the vacancy rate, the rental tenure rate in Wood County has been fairly steady between 2010 and 2014. The city of Bowling Green has the highest rental tenure given its largely student population base. The city of Bowling Green also has areas in the heart of the city that have declining rental tenure rates indicating a shift in the renter population to university housing or to newer housing tracts east of I-75. The cities of Perrysburg, Rossford and Northwood as well as Perrysburg Township have a generally lower rental tenure rate but also have block groups with significant increases in rental tenure rates.

| | 2014 | 2010 | Change | % Change |
|---|---|---|---|---|
| **Total Housing Units** | 53,588 | 53,376 | 212 | 0.40% |
| **Owner-occupied** | 33,286 | 33,250 | 36 | 0.11% |
| **Renter-occupied** | 16,275 | 15,793 | 482 | 3.05% |
| **Rental Tenure Rate** | 32.84% | 32.20% | -0.64% | |
| **Vacancy Rate** | 7.51% | 8.12% | 0.60% | |

*Figure 19: Housing Occupancy and Tenure Trends for Wood County (Source: Census 2010 and American Community Survey 2014)*

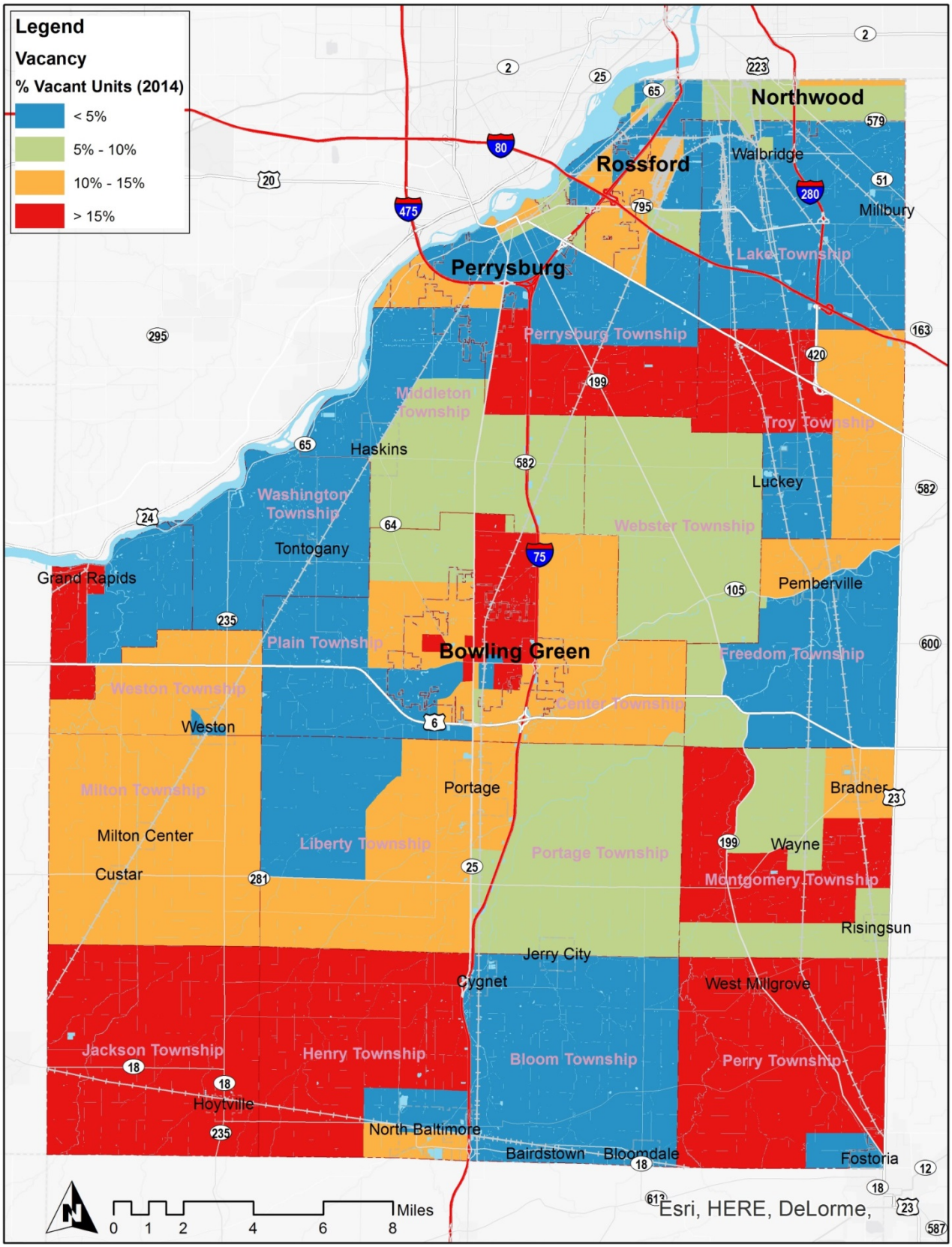



*Figure 20: Vacancy Rate (Block Group Level) for Wood County (Source: American Community Survey 2014)*

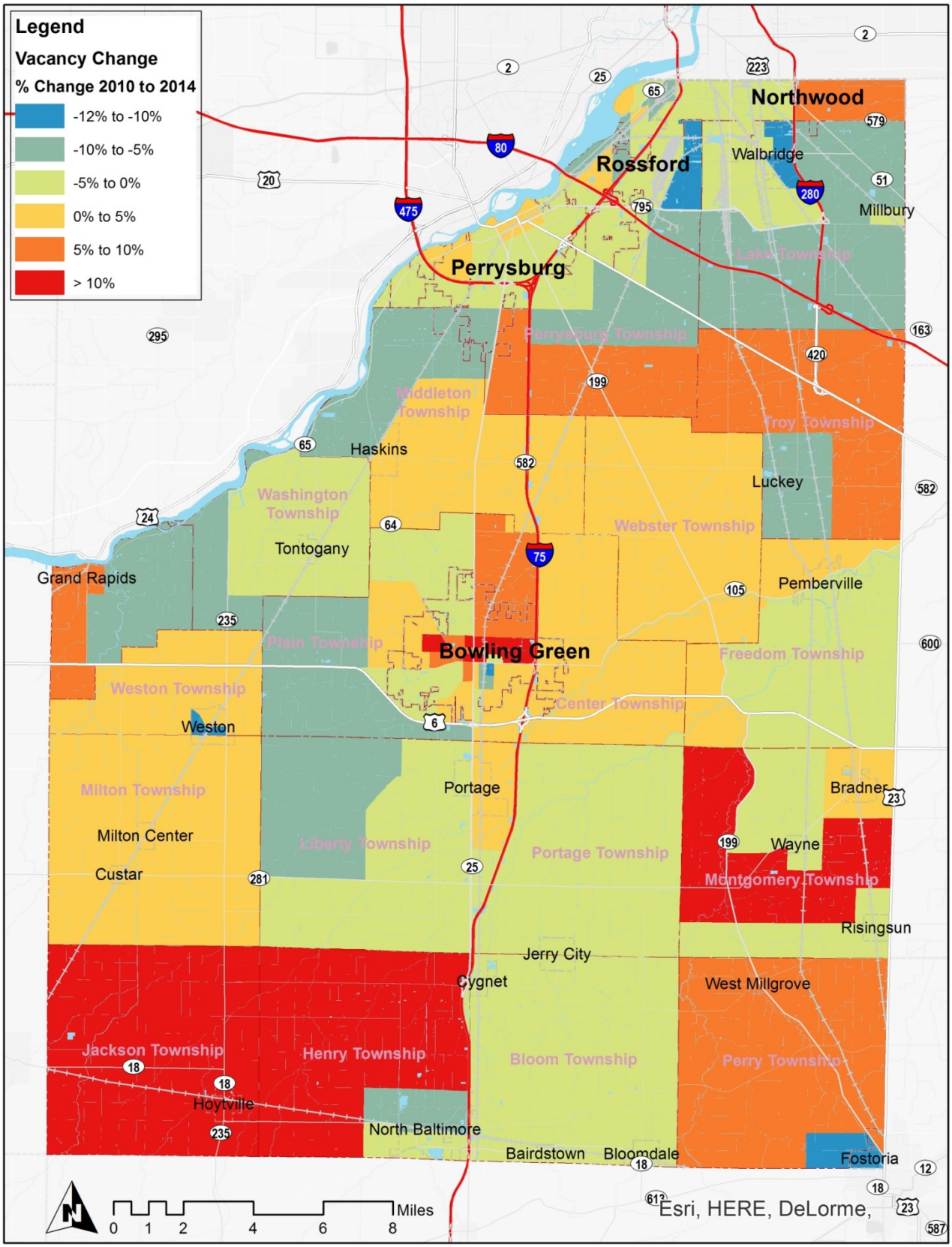



*Figure 21: Change in Vacancy Rates (Block Group Level) for Wood County (Source: Census 2010 and American Community Survey 2014)*

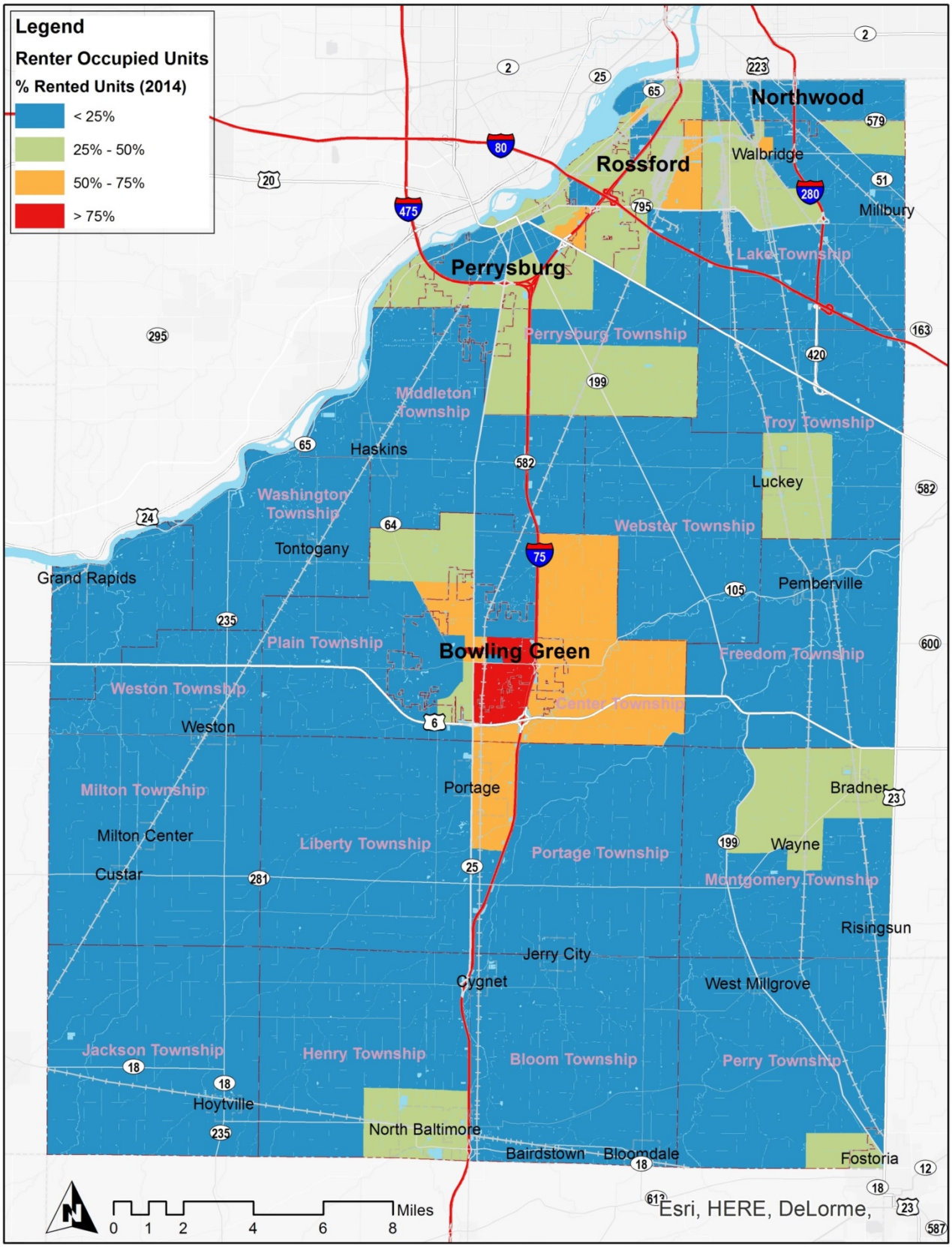



*Figure 22: Renter-occupied Units (Block Group Level) for Wood County (Source: American Community Survey 2014)*

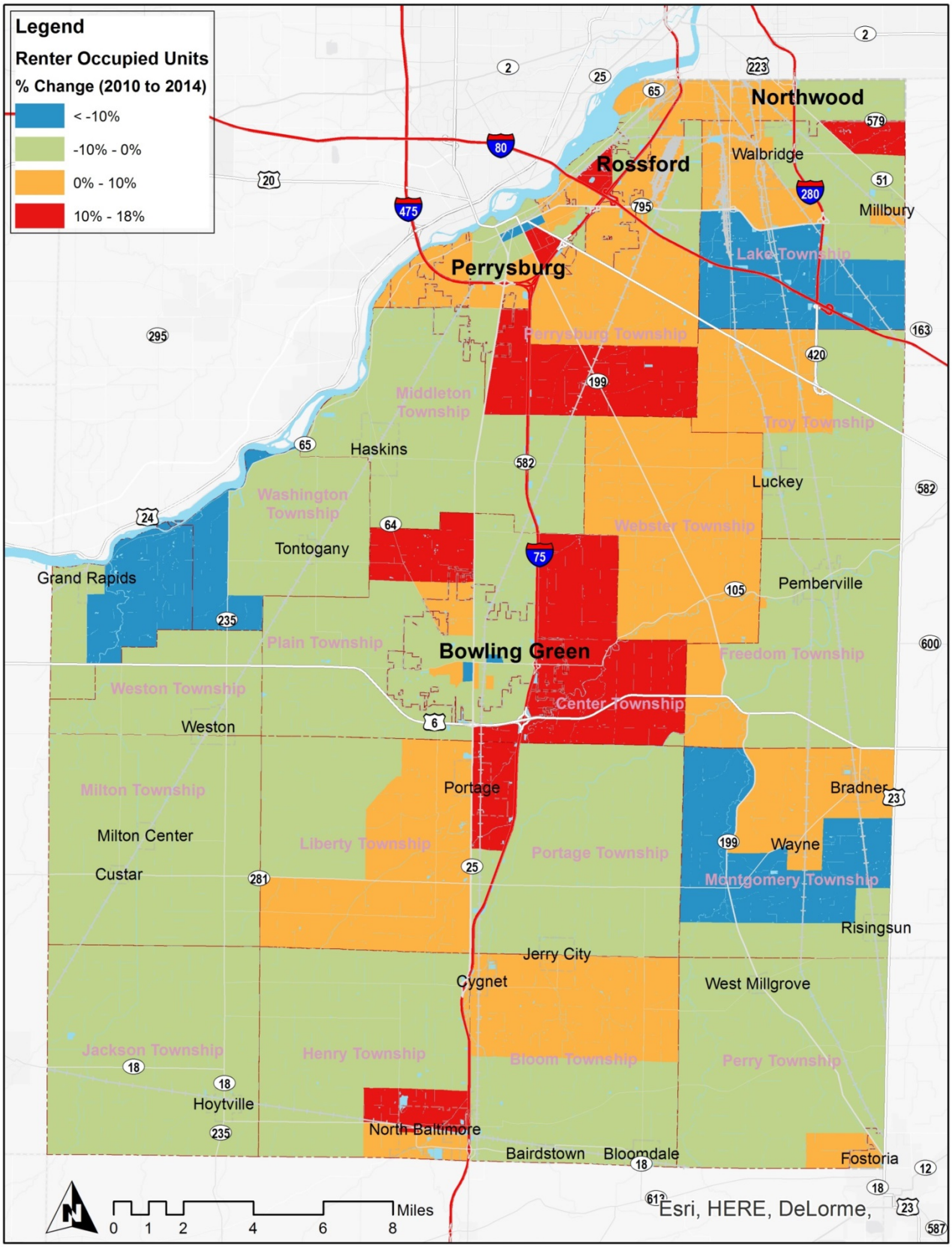



*Figure 23: Change in Renter-occupied Units (Block Group Level) for Wood County (Source: Census 2010 and American Community Survey 2014)*

# Median Value and Housing Affordability

At $145,700, the 2014 median home value for owner-occupied units in Wood County is higher than the state of Ohio and adjoining counties. The highest median home values, greater than $150,000, in the county are in the cities of Perrysburg, Rossford and Bowling Green. The city of Bowling Green also has some of the lowest median home values, less than $50,000, in proximity to the university campus.

The median household income in 2014 for Wood County was $52,758 which was also the highest compared to the state of Ohio and adjoining counties. The median monthly cost for owner-occupied housing units with mortgages for Wood County is $1,356 which is approximately 30% of the median household income. This housing affordability metric is slightly lower than the state of Ohio (approximately 31%) and significantly lower than Lucas County (approximately 34%). This is indicative of relatively affordable housing options in Wood County.

Considering monthly housing costs as a percentage of household income, approximately 72.7% of households in Wood County contribute less than 30% of their household income towards housing costs with 48.8% of households contributing less than 20% of their household income towards housing costs. On average, the townships are more affordable than cities with 48.8% of households in townships contributing less than 20% of household income towards housing costs compared to 43.2% in cities.

Of the townships, Perry, Washington and Portage townships are most affordable with only 12% to 14% of households contributing 30% or more of household income towards housing costs. On the other hand, Plain and Center townships, both adjoining Bowling Green, are least affordable with approximately 34% of households contributing 30% or more of household income towards housing costs.

Of the cities in Wood County, Perrysburg is the most affordable with only 23.5% of households contributing 30 % or more of household income towards housing costs and Bowling Green is less affordable with 41.2% of households contributing 30% or more of household income towards housing costs.

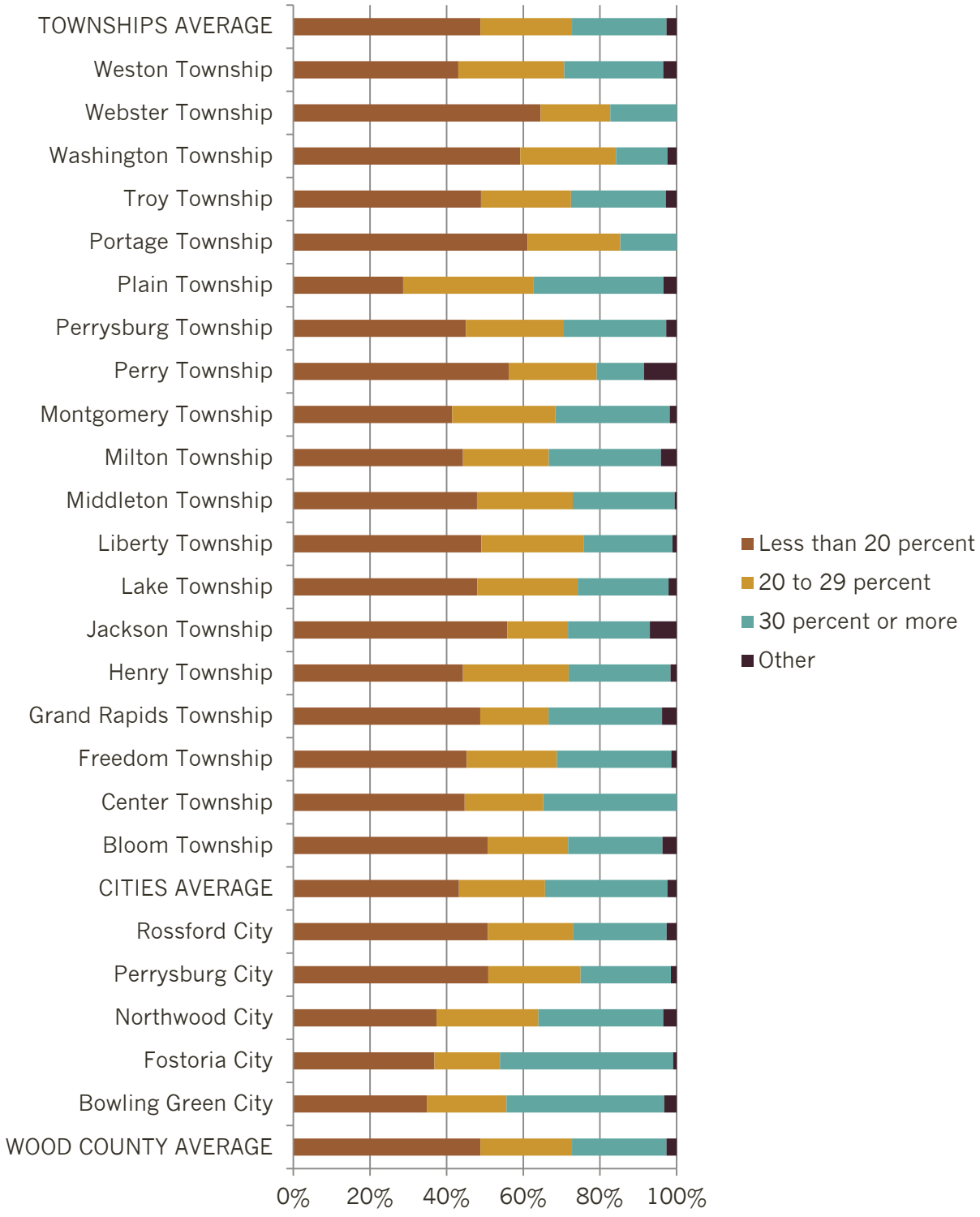



*Figure 24: Housing Affordability (Monthly Housing Costs as a percentage of Household Income) for Wood County (Source: American Community Survey 2014)*

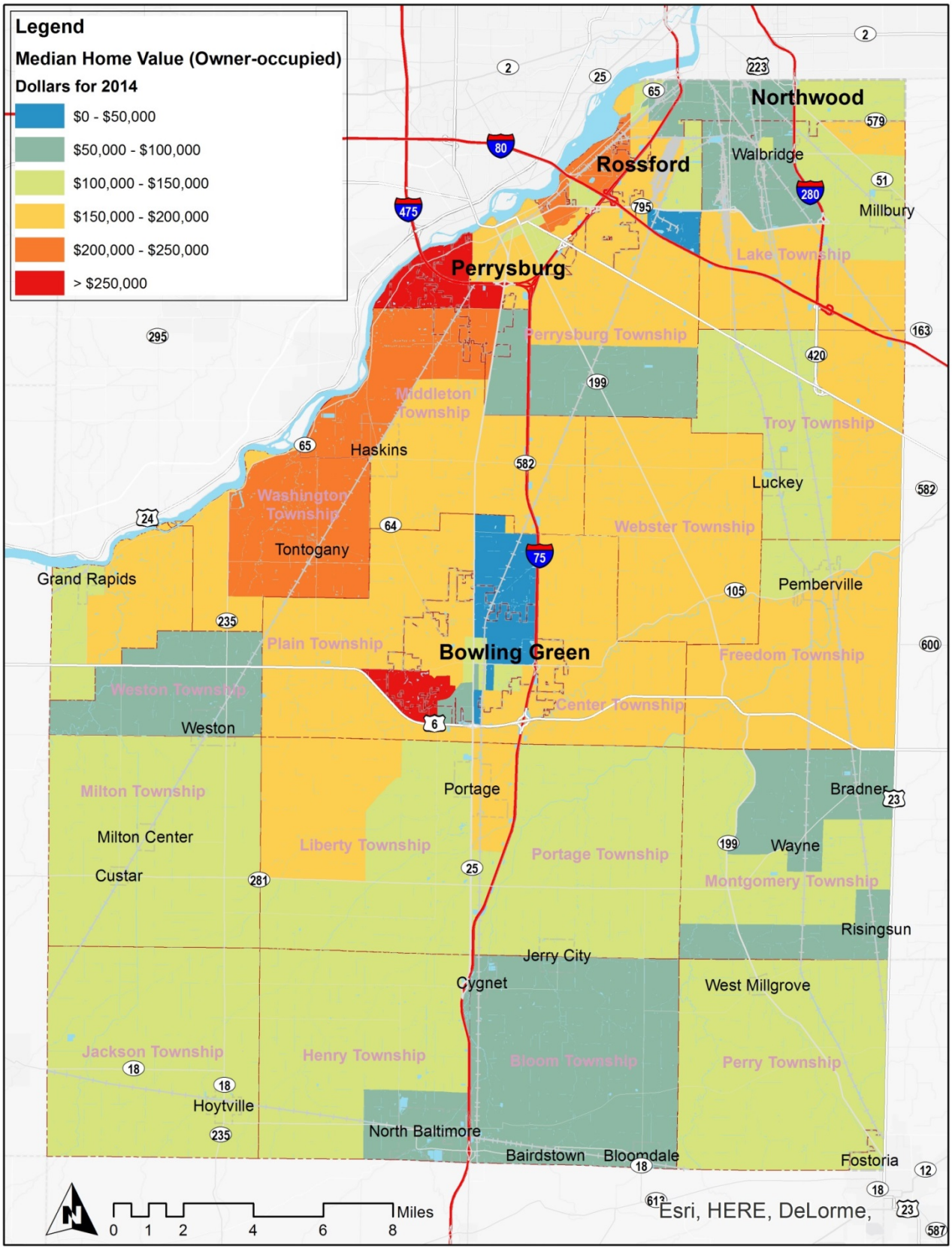



*Figure 25: Median Home Value (Block Group Level) for Wood County (Source: American Community Survey 2014)*

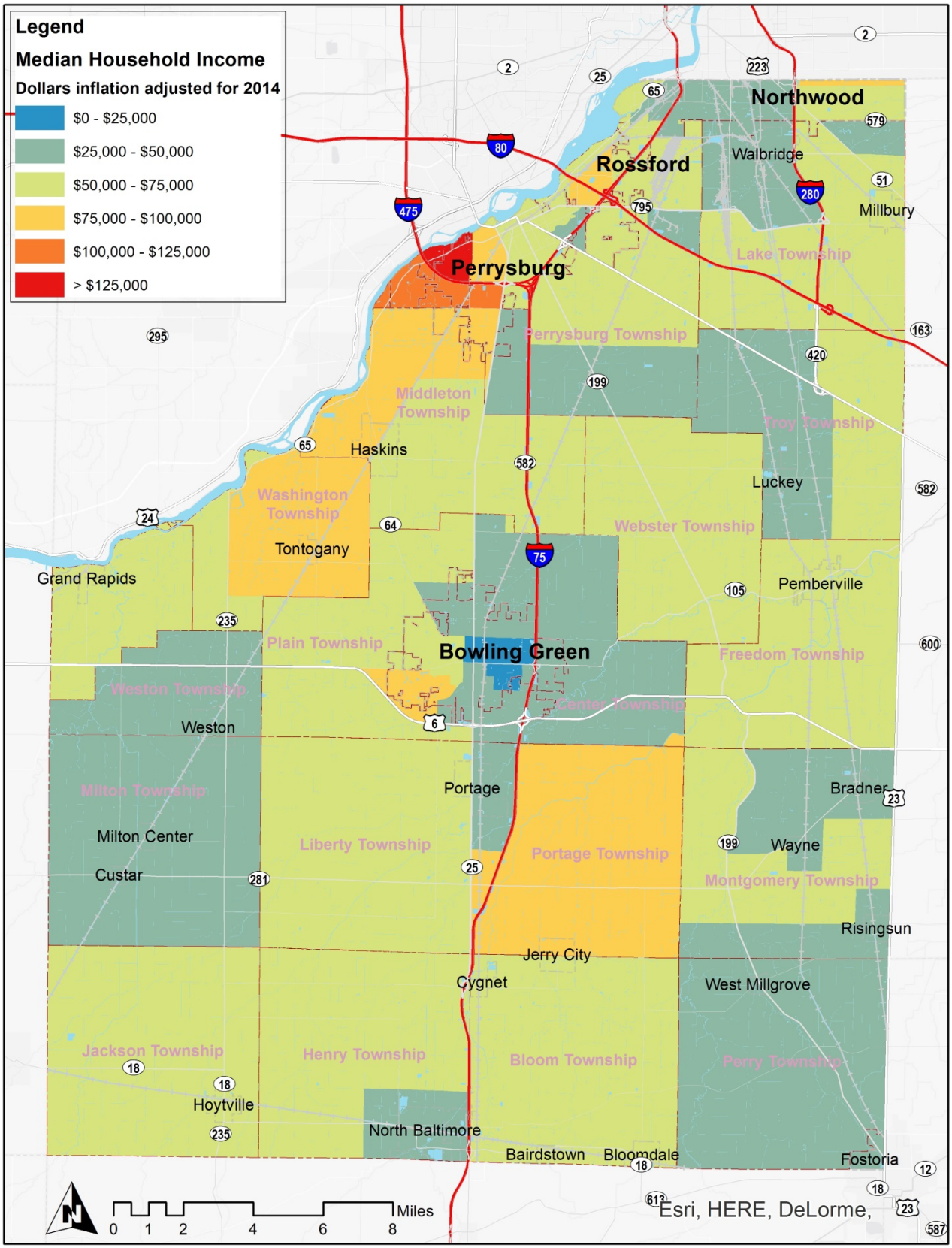



*Figure 26: Median Household Income (Block Group Level) for Wood County (Source: American Community Survey 2014)*

# LAND USE ANALYSIS

Wood County is approximately 620 square miles in area with approximately 617 square miles in land area and 3.3 square miles in water.

Wood County consists of 45 jurisdictional entities of 3 types: cities, villages and townships. Wood County consists of 5 cities with approximately 6.65% of total area, 21 villages with approximately 3% of the total area, and 19 townships with the remaining 90.35% of the total land area that is not incorporated by the cities and villages.

While some of the jurisdictions in the county maintain zoning, this land use analysis is based on parcel data prepared and maintained by the Wood County Auditor dated January 2016. Using this data provided up to date information and consistency across jurisdictional boundaries.

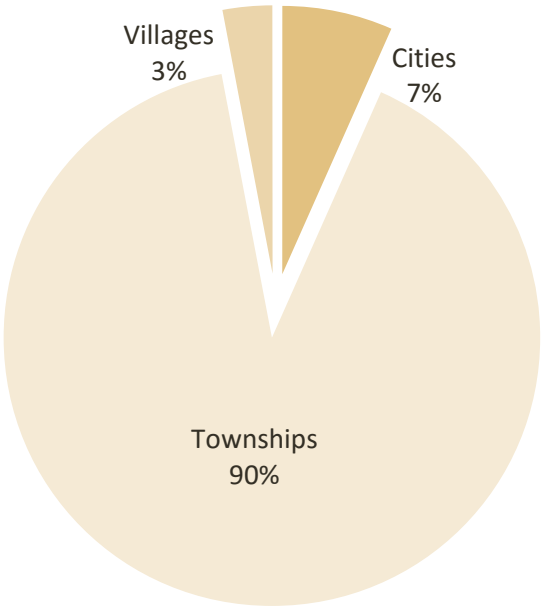



*Figure 27: Jurisdictional Land Distribution for Wood County (Source: Wood County Auditor Parcel Data 2016)*

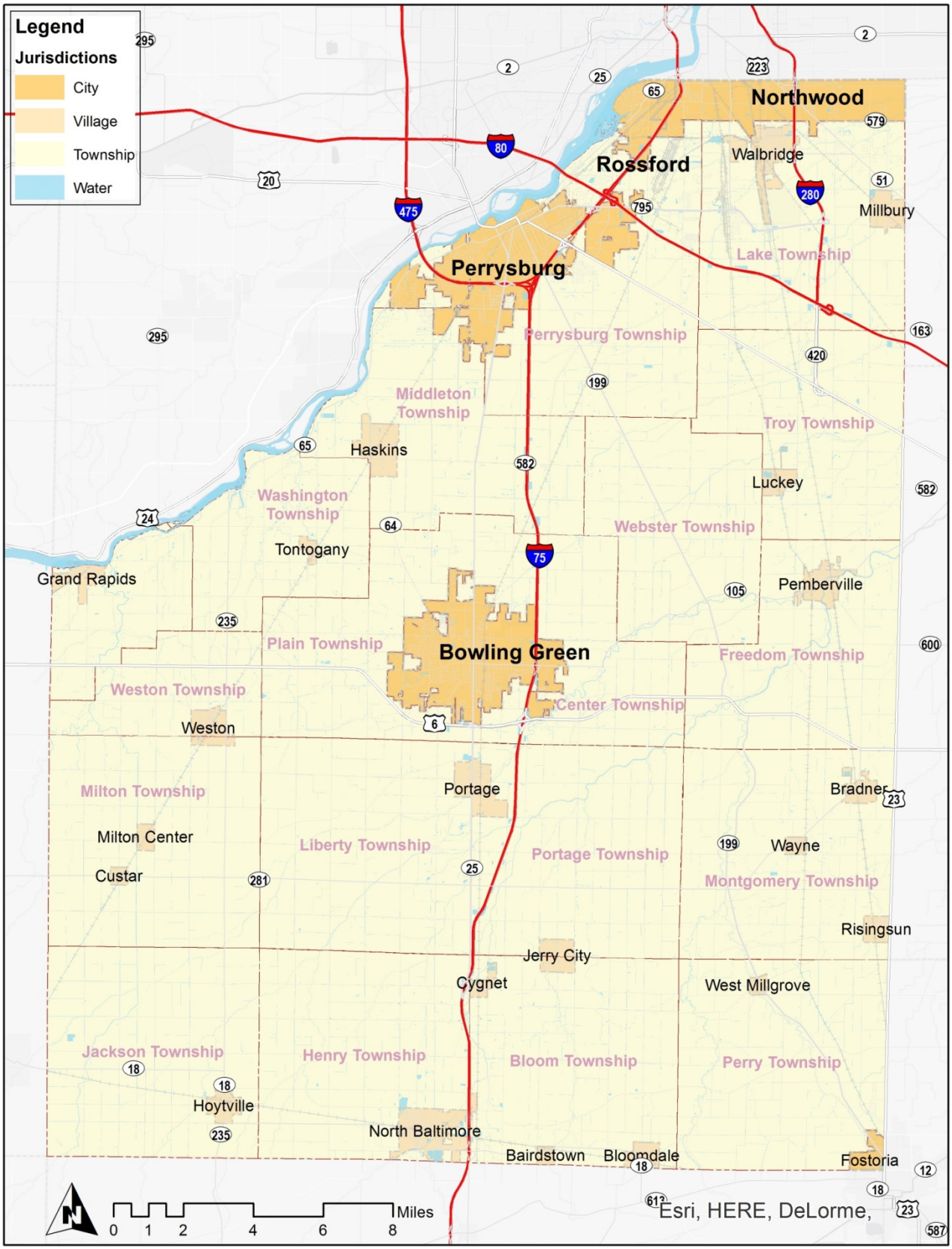



*Figure 28: Cities, Villages and Townships in Wood County (Source: Wood County Auditor Parcel Data 2016)*

# Existing Land Use

The existing land use categories for Wood County were derived from the land use classification code in the parcel data. The land use classification codes were grouped into 8 generalized existing land use categories – Residential Single Family, Residential Multifamily, Commercial, Industrial, Agricultural, Parks/Open Space, Public/Institutional and Transportation (including rail and road right-of-way).

Agriculture is the predominant existing land use in Wood County with approximately 76.6% of land in agricultural uses. A significant portion of the land is agricultural in townships (approximately 82.8% of land area in townships) but some agricultural uses are also included in cities and villages.

Overall Wood County has approximately 13.8% land in residential uses. Approximately one third of the land area in cities and villages is residential uses (single family and multifamily) whereas only 12% of the land area in the townships is residential. Residential uses in Wood County are predominantly single family with limited multifamily uses in the cities and villages.

Commercial uses, approximately 16% of land area in cities, are predominantly located along major transportation corridors in cities and some, approximately 6.4% of land area in the villages. Commercial uses in townships, approximately 1.6% of land area in townships, are generally located along major road or rail infrastructure. Overall Wood County has approximately 2.5% land area in commercial uses.

Overall Wood County has only 1.6% of land in industrial uses. Industrial uses are predominantly located in cities, specifically the city of Northwood (approximately 21% of the city's land area). Perrysburg Township includes approximately 1,561 acres in industrial uses along major road and rail infrastructure.

Overall Wood County has only 1.8% of land in public and/or institutional uses. The most significant is in the city of which includes the county seat and Bowling Green State University. The city of Bowling Green has approximately 20.8% land in public/institutional uses. Other land uses include parks and open spaces (approximately 0.4% of county land area) and road and rail infrastructure (approximately 2.8% of county land area.

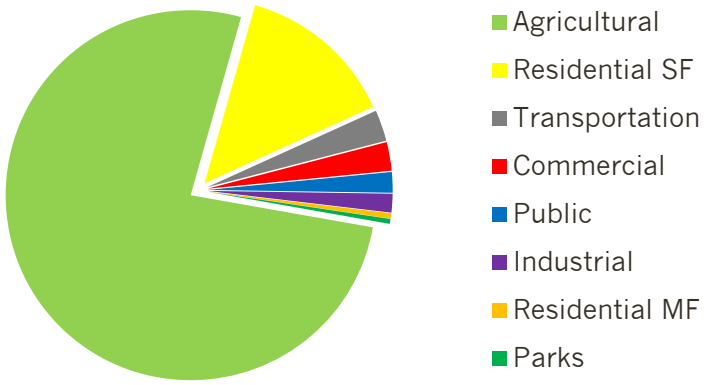



*Figure 29: Existing Land Use Distribution for Wood County (Source: Wood County Auditor Parcel Data 2016)*

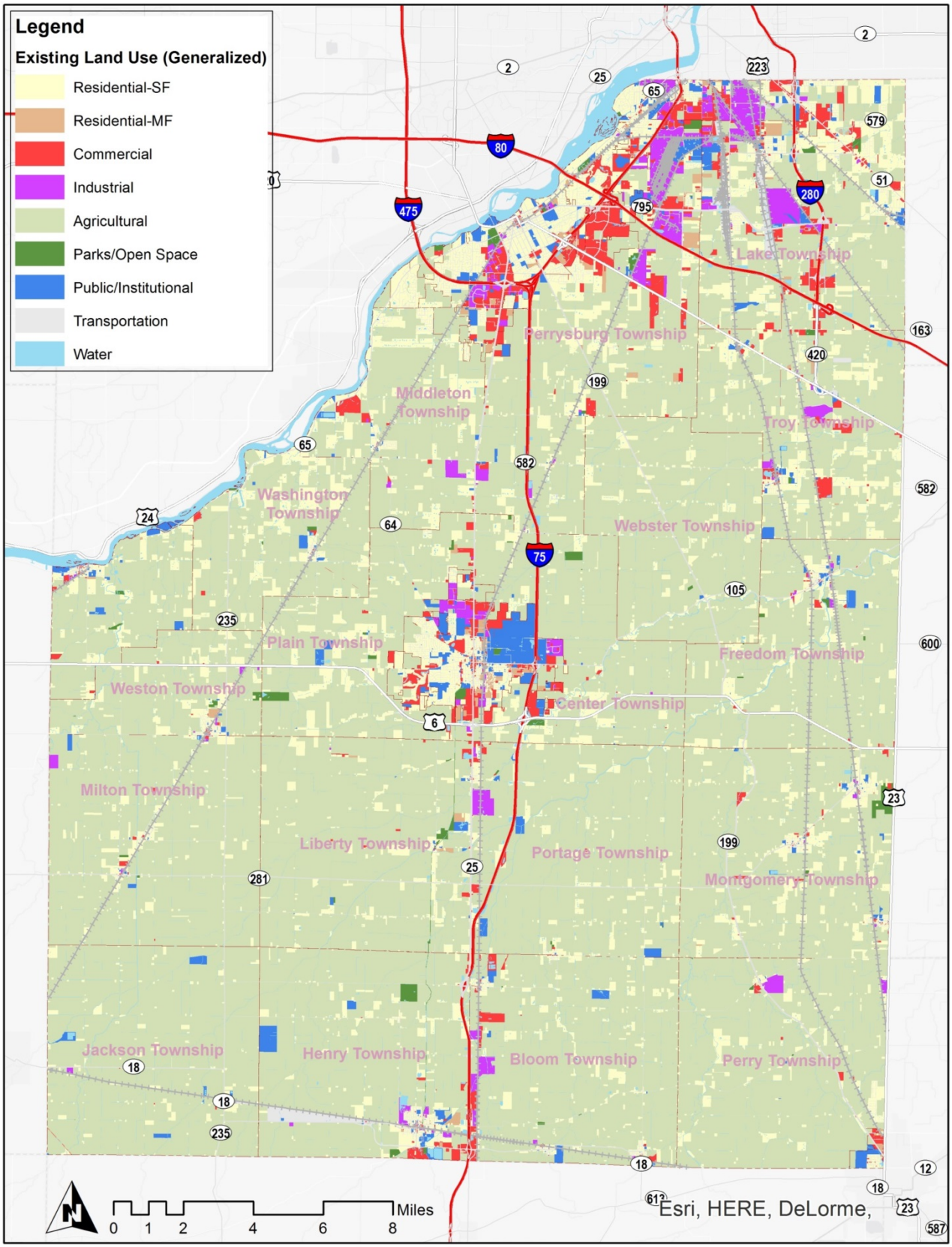



*Figure 30: Existing Land Use in Wood County (Source: Wood County Auditor Parcel Data 2016)*

| | Jurisdiction | Total Land | Existing Land Use | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Residential SF | | Residential MF | | Commercial | | Industrial | | Public | |
| | | | Acres | % | Acres | % | Acres | % | Acres | % | Acres | % |
| Cities | Bowling Green | 9,011 | 3,039 | 33.7% | 391 | 4.3% | 1,475 | 16.4% | 562 | 6.2% | 1,874 | 20.8% |
| | Fostoria | 627 | 103 | 16.4% | 34 | 5.4% | 93 | 14.8% | 0 | 0.0% | 145 | 23.1% |
| | Northwood | 5,350 | 1,270 | 23.7% | 65 | 1.2% | 823 | 15.4% | 1,131 | 21.1% | 267 | 5.0% |
| | Perrysburg | 8,215 | 3,478 | 42.3% | 262 | 3.2% | 1,036 | 12.6% | 347 | 4.2% | 678 | 8.3% |
| | Rossford | 3,263 | 1,027 | 31.5% | 45 | 1.4% | 908 | 27.8% | 261 | 8.0% | 271 | 8.3% |
| | Total | **26,466** | **8,917** | 33.7% | **797** | 3.0% | **4,335** | 16.4% | **2,301** | 8.7% | **3,235** | 12.2% |
| Townships | Bloom | 21,565 | 1,457 | 6.8% | 0 | 0.0% | 299 | 1.4% | 314 | 1.5% | 171 | 0.8% |
| | Center | 16,044 | 1,828 | 11.4% | 0 | 0.0% | 124 | 0.8% | 18 | 0.1% | 34 | 0.2% |
| | Freedom | 18,562 | 1,921 | 10.3% | 18 | 0.1% | 92 | 0.5% | 8 | 0.0% | 99 | 0.5% |
| | Grand Rapids | 8,142 | 1,245 | 15.3% | 4 | 0.0% | 36 | 0.4% | 0 | 0.0% | 238 | 2.9% |
| | Henry | 21,428 | 1,303 | 6.1% | 6 | 0.0% | 167 | 0.8% | 48 | 0.2% | 298 | 1.4% |
| | Jackson | 22,844 | 770 | 3.4% | 0 | 0.0% | 9 | 0.0% | 21 | 0.1% | 202 | 0.9% |
| | Lake | 20,308 | 4,234 | 20.8% | 186 | 0.9% | 1,138 | 5.6% | 793 | 3.9% | 387 | 1.9% |
| | Liberty | 23,211 | 1,727 | 7.4% | 84 | 0.4% | 112 | 0.5% | 4 | 0.0% | 96 | 0.4% |
| | Middleton | 19,672 | 4,096 | 20.8% | 6 | 0.0% | 264 | 1.3% | 291 | 1.5% | 133 | 0.7% |
| | Milton | 22,818 | 1,079 | 4.7% | 0 | 0.0% | 31 | 0.1% | 63 | 0.3% | 66 | 0.3% |
| | Montgomery | 22,277 | 2,532 | 11.4% | 5 | 0.0% | 189 | 0.8% | 2 | 0.0% | 51 | 0.2% |
| | Perry | 22,382 | 1,639 | 7.3% | 7 | 0.0% | 69 | 0.3% | 197 | 0.9% | 20 | 0.1% |
| | Perrysburg | 23,417 | 5,159 | 22.0% | 448 | 1.9% | 1,526 | 6.5% | 1,561 | 6.7% | 445 | 1.9% |
| | Plain | 15,595 | 2,450 | 15.7% | 24 | 0.2% | 169 | 1.1% | 19 | 0.1% | 236 | 1.5% |
| | Portage | 22,348 | 1,549 | 6.9% | 0 | 0.0% | 122 | 0.5% | 22 | 0.1% | 256 | 1.1% |
| | Troy | 18,649 | 3,405 | 18.3% | 74 | 0.4% | 487 | 2.6% | 217 | 1.2% | 182 | 1.0% |
| | Washington | 13,152 | 2,789 | 21.2% | 0 | 0.0% | 56 | 0.4% | 0 | 0.0% | 46 | 0.4% |
| | Webster | 18,456 | 1,624 | 8.8% | 0 | 0.0% | 6 | 0.0% | 0 | 0.0% | 8 | 0.0% |
| | Weston | 8,721 | 1,244 | 14.3% | 2 | 0.0% | 8 | 0.1% | 21 | 0.2% | 4 | 0.0% |
| | Total | **359,592** | **42,049** | 11.7% | **865** | 0.2% | **4,904** | 1.4% | **3,601** | 1.0% | **2,972** | 0.8% |
| Villages | Bairdstown | 167 | 48 | 28.8% | 0 | 0.0% | 6 | 3.3% | 0 | 0.0% | 2 | 0.9% |
| | Bloomdale | 424 | 106 | 24.9% | 0 | 0.0% | 34 | 8.1% | 7 | 1.7% | 37 | 8.8% |
| | Bradner | 439 | 233 | 53.0% | 3 | 0.6% | 4 | 1.0% | 14 | 3.2% | 43 | 9.7% |
| | Custar | 166 | 83 | 50.3% | 0 | 0.0% | 2 | 1.2% | 8 | 5.1% | 6 | 3.6% |
| | Cygnet | 269 | 104 | 38.8% | 2 | 0.8% | 59 | 21.8% | 2 | 0.8% | 46 | 16.9% |
| | Grand Rapids | 624 | 292 | 46.9% | 11 | 1.8% | 50 | 8.0% | 11 | 1.8% | 45 | 7.3% |
| | Haskins | 1,007 | 205 | 20.4% | 0 | 0.0% | 44 | 4.4% | 6 | 0.6% | 18 | 1.7% |
| | Hoytville | 478 | 138 | 28.9% | 0 | 0.0% | 9 | 1.8% | 0 | 0.0% | 14 | 2.8% |
| | Jerry City | 602 | 193 | 32.1% | 0 | 0.1% | 4 | 0.7% | 0 | 0.0% | 1 | 0.2% |
| | Luckey | 435 | 217 | 49.9% | 0 | 0.1% | 87 | 20.1% | 6 | 1.4% | 74 | 17.0% |
| | Millbury | 635 | 318 | 50.1% | 2 | 0.3% | 18 | 2.8% | 0 | 0.0% | 99 | 15.7% |
| | Milton Center | 253 | 102 | 40.2% | 0 | 0.0% | 10 | 3.9% | 0 | 0.0% | 2 | 0.6% |
| | North Baltimore | 1,666 | 537 | 32.3% | 83 | 5.0% | 205 | 12.3% | 126 | 7.5% | 240 | 14.4% |
| | Pemberville | 762 | 347 | 45.5% | 2 | 0.2% | 24 | 3.2% | 47 | 6.1% | 78 | 10.2% |
| | Portage | 1,043 | 140 | 13.4% | 0 | 0.0% | 32 | 3.0% | 275 | 26.3% | 9 | 0.9% |
| | Risingsun | 366 | 105 | 28.7% | 0 | 0.1% | 13 | 3.7% | 5 | 1.4% | 22 | 5.9% |
| | Tontogany | 194 | 80 | 41.4% | 0 | 0.0% | 3 | 1.5% | 2 | 1.2% | 66 | 34.0% |
| | Walbridge | 1,342 | 308 | 23.0% | 83 | 6.2% | 99 | 7.4% | 57 | 4.2% | 50 | 3.7% |
| | Wayne | 199 | 129 | 65.1% | 1 | 0.6% | 8 | 3.9% | 3 | 1.4% | 20 | 9.9% |
| | West Millgrove | 166 | 61 | 37.0% | 0 | 0.0% | 29 | 17.8% | 13 | 7.9% | 2 | 1.1% |
| | Weston | 717 | 321 | 44.7% | 43 | 6.1% | 23 | 3.2% | 19 | 2.6% | 41 | 5.8% |
| | Total | **11,951** | **4,068** | 34.0% | **231** | 1.9% | **764** | 6.4% | **602** | 5.0% | **913** | 7.6% |
| | **Total Acres** | **398,008** | **55,034** | **13.8%** | **1,893** | **0.5%** | **10,003** | **2.5%** | **6,503** | **1.6%** | **7,121** | **1.8%** |
| | **Total Sq.Mi.** | **621.89** | **85.99** | | **2.96** | | **15.63** | | **10.16** | | **11.13** | |

*Figure 31: Existing Land Use Audit Wood County (Source: Wood County Auditor Parcel Data 2016)*

| | Jurisdiction | Total Land | Existing Land Use | | | | | | | | Maumee River |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Agricultural | | Parks | | Rail | | Road | | |
| | | | Acres | % | Acres | % | Acres | % | Acres | % | |
| Cities | Bowling Green | 9,011 | 880 | 9.8% | 78 | 0.9% | 23 | 0.3% | 688 | 7.6% | 0 |
| | Fostoria | 627 | 94 | 14.9% | 0 | 0.0% | 125 | 20.0% | 34 | 5.4% | 0 |
| | Northwood | 5,350 | 1,355 | 25.3% | 0 | 0.0% | 38 | 0.7% | 401 | 7.5% | 0 |
| | Perrysburg | 8,215 | 829 | 10.1% | 83 | 1.0% | 98 | 1.2% | 1,403 | 17.1% | 0 |
| | Rossford | 3,263 | 352 | 10.8% | 6 | 0.2% | 0 | 0.0% | 393 | 12.0% | 0 |
| | Total | **26,466** | **3,510** | 13.3% | **167** | 0.6% | **286** | 1.1% | **2,919** | 11.0% | **0** |
| Townships | Bloom | 21,565 | 19,095 | 88.5% | 13 | 0.1% | 114 | 0.5% | 102 | 0.5% | 0 |
| | Center | 16,044 | 13,462 | 83.9% | 146 | 0.9% | 26 | 0.2% | 408 | 2.5% | 0 |
| | Freedom | 18,562 | 16,300 | 87.8% | 22 | 0.1% | 61 | 0.3% | 41 | 0.2% | 0 |
| | Grand Rapids | 8,142 | 6,564 | 80.6% | 36 | 0.4% | 0 | 0.0% | 19 | 0.2% | 43 |
| | Henry | 21,428 | 18,605 | 86.8% | 190 | 0.9% | 547 | 2.6% | 264 | 1.2% | 0 |
| | Jackson | 22,844 | 21,723 | 95.1% | 0 | 0.0% | 118 | 0.5% | 2 | 0.0% | 0 |
| | Lake | 20,308 | 11,744 | 57.8% | 82 | 0.4% | 888 | 4.4% | 856 | 4.2% | 0 |
| | Liberty | 23,211 | 21,034 | 90.6% | 130 | 0.6% | 0 | 0.0% | 24 | 0.1% | 0 |
| | Middleton | 19,672 | 14,509 | 73.8% | 0 | 0.0% | 87 | 0.4% | 285 | 1.4% | 0 |
| | Milton | 22,818 | 21,451 | 94.0% | 16 | 0.1% | 109 | 0.5% | 2 | 0.0% | 0 |
| | Montgomery | 22,277 | 19,181 | 86.1% | 252 | 1.1% | 63 | 0.3% | 1 | 0.0% | 0 |
| | Perry | 22,382 | 20,385 | 91.1% | 2 | 0.0% | 35 | 0.2% | 30 | 0.1% | 0 |
| | Perrysburg | 23,417 | 13,054 | 55.7% | 227 | 1.0% | 146 | 0.6% | 850 | 3.6% | 81 |
| | Plain | 15,595 | 12,316 | 79.0% | 172 | 1.1% | 27 | 0.2% | 182 | 1.2% | 0 |
| | Portage | 22,348 | 20,036 | 89.7% | 6 | 0.0% | 47 | 0.2% | 310 | 1.4% | 0 |
| | Troy | 18,649 | 13,867 | 74.4% | 30 | 0.2% | 109 | 0.6% | 277 | 1.5% | 0 |
| | Washington | 13,152 | 10,142 | 77.1% | 34 | 0.3% | 69 | 0.5% | 17 | 0.1% | 57 |
| | Webster | 18,456 | 16,803 | 91.0% | 8 | 0.0% | 0 | 0.0% | 7 | 0.0% | 0 |
| | Weston | 8,721 | 7,346 | 84.2% | 53 | 0.6% | 37 | 0.4% | 6 | 0.1% | 0 |
| | Total | **359,592** | **297,616** | 82.8% | **1,420** | 0.4% | **2,482** | 0.7% | **3,684** | 1.0% | **181** |
| Villages | Bairdstown | 167 | 85 | 50.5% | 0 | 0.0% | 6 | 3.6% | 22 | 12.9% | 0 |
| | Bloomdale | 424 | 187 | 44.2% | 0 | 0.0% | 11 | 2.6% | 41 | 9.7% | 0 |
| | Bradner | 439 | 89 | 20.4% | 0 | 0.0% | 7 | 1.7% | 46 | 10.4% | 0 |
| | Custar | 166 | 46 | 27.7% | 0 | 0.0% | 9 | 5.4% | 11 | 6.8% | 0 |
| | Cygnet | 269 | 25 | 9.1% | 0 | 0.0% | 4 | 1.6% | 27 | 10.1% | 0 |
| | Grand Rapids | 624 | 158 | 25.3% | 1 | 0.1% | 0 | 0.0% | 55 | 8.9% | 12 |
| | Haskins | 1,007 | 686 | 68.2% | 0 | 0.0% | 13 | 1.3% | 34 | 3.4% | 0 |
| | Hoytville | 478 | 275 | 57.6% | 0 | 0.0% | 27 | 5.6% | 16 | 3.2% | 0 |
| | Jerry City | 602 | 371 | 61.6% | 7 | 1.2% | 0 | 0.0% | 25 | 4.2% | 0 |
| | Luckey | 435 | 0 | 0.0% | 10 | 2.3% | 2 | 0.4% | 38 | 8.7% | 0 |
| | Millbury | 635 | 123 | 19.4% | 0 | 0.0% | 15 | 2.4% | 59 | 9.3% | 0 |
| | Milton Center | 253 | 103 | 40.6% | 0 | 0.0% | 16 | 6.2% | 21 | 8.5% | 0 |
| | North Baltimore | 1,666 | 201 | 12.1% | 50 | 3.0% | 25 | 1.5% | 199 | 11.9% | 0 |
| | Pemberville | 762 | 184 | 24.2% | 24 | 3.1% | 13 | 1.8% | 43 | 5.7% | 0 |
| | Portage | 1,043 | 552 | 52.9% | 8 | 0.8% | 11 | 1.1% | 16 | 1.5% | 0 |
| | Risingsun | 366 | 181 | 49.5% | 0 | 0.0% | 9 | 2.3% | 31 | 8.4% | 0 |
| | Tontogany | 194 | 9 | 4.7% | 0 | 0.0% | 6 | 3.3% | 27 | 13.9% | 0 |
| | Walbridge | 1,342 | 316 | 23.5% | 0 | 0.0% | 318 | 23.7% | 110 | 8.2% | 0 |
| | Wayne | 199 | 2 | 0.9% | 0 | 0.0% | 0 | 0.0% | 36 | 18.2% | 0 |
| | West Millgrove | 166 | 40 | 24.0% | 7 | 4.4% | 0 | 0.0% | 13 | 7.8% | 0 |
| | Weston | 717 | 196 | 27.3% | 0 | 0.0% | 14 | 1.9% | 60 | 8.4% | 0 |
| | Total | **11,951** | **3,829** | 32.0% | **106** | 0.9% | **507** | 4.2% | **931** | 7.8% | **12** |
| | **Total Acres** | **398,008** | **304,954** | **76.6%** | **1,694** | **0.4%** | **3,274** | **0.8%** | **7,533** | **1.9%** | **194** |
| | **Total Sq.Mi.** | **621.89** | **476.49** | | **2.65** | | **5.12** | | **11.77** | | **0.30** |

*Figure 32: Existing Land Use Audit Wood County (Source: Wood County Auditor Parcel Data 2016)*

# Vacant/Underutilized Land

The vacant and underutilized land analysis is focused on parcels with non-agricultural existing land use. This analysis identifies parcels with no structure as vacant. Underutilized parcels are identified using improved value to land value ratio which is an indicator of the potential of the land to redevelop. A low improved to land value ratio, usually 1.0 or lesser, is indicative of high potential for redevelopment. An improved to land value ratio of 1.0 to 2.0 is indicative of moderate redevelopment potential and an improved to land value ratio higher than 2.0 is indicative of a low potential for redevelopment. While there are other factors such as structure age and local zoning regulations that contribute to redevelopment potential, this methodology provides a preview of the areas with redevelopment potential and would suffice for the development of a land use plan.

## Vacant Parcels

The highest proportion of vacant land in Wood County is commercial land. The inventory of vacant commercial parcels in Wood County is approximately 2,591 acres. Majority of this land is located in the cities – Rossford, Bowling Green, Perrysburg and Northwood. In addition to the cities, Perrysburg Township and Lake Township also has a significant inventory of vacant commercial land. These vacant commercial parcels are mostly located in proximity to highways and major roads. Vacant commercial parcels also include multifamily residential uses.

The inventory of vacant residential parcels is notably smaller in acres compared to commercial parcels for Wood County overall. Majority of the vacant residential parcels are in the cities – Perrysburg and Bowling Green. Perrysburg Township and Middleton Township also have substantial inventory of vacant residential parcels.

| Jurisdictions | Total Land Area | Vacant Acreage | % Vacant |
|---|---|---|---|
| **Unincorporated County (Townships)** | 359,592 | 1,753 | <0.05% |
| **Villages** | 11,951 | 608 | 5% |
| **Cities** | 26,466 | 3,273 | 12.36% |
| ***Total Wood County*** | ***398,008*** | ***5,634*** | ***1.41%*** |

*Figure 33: Vacant Land Use Audit Summary Wood County (Source: Wood County Auditor Parcel Data 2016)*

## Parks and Recreational Open Spaces

Overall Wood County has approximately 1,694 acres set aside as parks and open space which translates into 0.01 acres per capita when compared to County population estimates for 2014. This category includes all parks, recreational trails and cemeteries identified by the Wood County Park District. Some parks and recreational open space parcels are classified as public land but not specifically identified as such. For example, parks, playgrounds and recreational open spaces associated with schools or other institutional uses may not be identified in this category. Maumee River and the recreational areas associated with the river are identified on the following map but not all acreage is included in this analysis.

| | 2014 ACS Population | Parks | |
|---|---|---|---|
| | | Acres | Acres per Capita |
| Bowling Green | 31366 | 78 | 0.00 |
| Fostoria | 944 | 0 | 0.00 |
| Northwood | 5285 | 0 | 0.00 |
| Perrysburg | 21122 | 83 | 0.00 |
| Rossford | 6434 | 6 | 0.00 |
| **Total Cities** | **65,151** | **167** | **0.00** |
| Bloom | 2633 | 13 | 0.01 |
| Center | 1429 | 146 | 0.10 |
| Freedom | 2760 | 46 | 0.02 |
| Grand Rapids | 1533 | 37 | 0.02 |
| Henry | 4241 | 240 | 0.06 |
| Jackson | 802 | 0 | 0.00 |
| Lake | 11127 | 82 | 0.01 |
| Liberty | 1624 | 138 | 0.09 |
| Middleton | 4543 | 0 | 0.00 |
| Milton | 877 | 16 | 0.02 |
| Montgomery | 4290 | 252 | 0.06 |
| Perry | 1517 | 10 | 0.01 |
| Perrysburg | 12482 | 227 | 0.02 |
| Plain | 1950 | 172 | 0.09 |
| Portage | 1628 | 13 | 0.01 |
| Troy | 3924 | 40 | 0.01 |
| Washington | 2040 | 34 | 0.02 |
| Webster | 1211 | 8 | 0.01 |
| Weston | 2377 | 53 | 0.02 |
| **Total Townships** | **62,988** | **1,526** | **0.02** |
| **Total All** | **128,139** | **1,694** | **0.01** |

*Figure 34: Parks and Recreation Open Acreage per Capita for Wood County (Source: American Community Survey 2014 and Wood County Auditor Parcel Data 2016)*

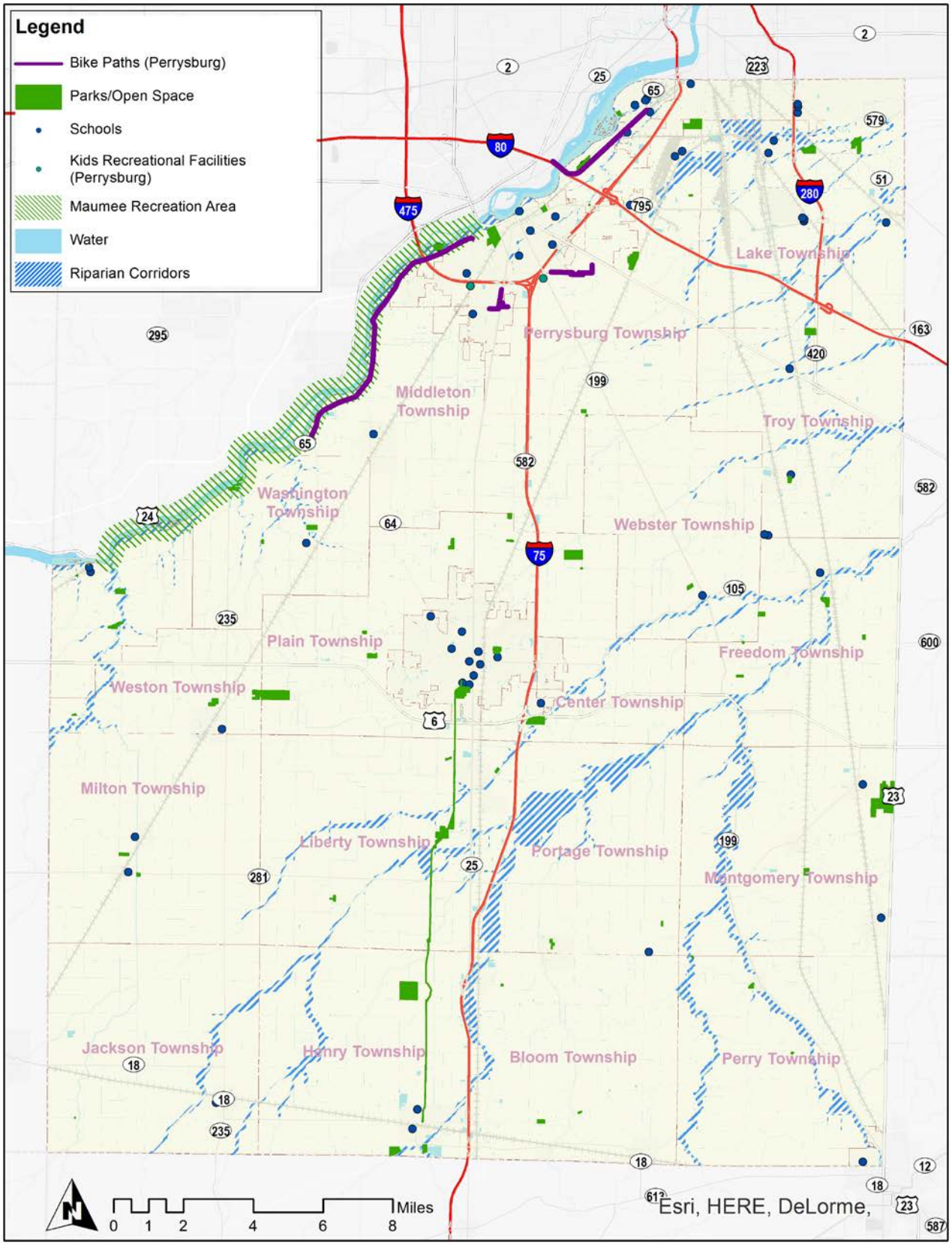



*Figure 35: Parks and Open Spaces in Wood County (Source: Wood County Auditor Parcel Data 2016)*

## Prime Agricultural Soils and Farms

Wood County has predominantly agricultural land uses with approximately 76.6% land classified as agriculture. Farmland values have grown steeply in Wood County and the County has instituted a special assessment program to reflect production capabilities and not agricultural property sales. Since market land values for agricultural parcels are higher along the I-75 corridor and in the periphery of cities, the pressure to convert agricultural land to other uses is higher. The current agricultural use value minimizes the property tax increases associated with increasing land values and creates an incentive for agricultural land owners to maintain current agricultural uses.

| | 2014 ACS Population | Agricultural | |
|---|---|---|---|
| | | Acres | Acres per Capita |
| Bowling Green | 31366 | 880 | 0.03 |
| Fostoria | 944 | 94 | 0.10 |
| Northwood | 5285 | 1,355 | 0.26 |
| Perrysburg | 21122 | 829 | 0.04 |
| Rossford | 6434 | 352 | 0.05 |
| **Total Cities** | **65,151** | **3,510** | **0.05** |
| Bloom | 2633 | 19,391 | 7.36 |
| Center | 1429 | 13,462 | 9.42 |
| Freedom | 2760 | 16,485 | 5.97 |
| Grand Rapids | 1533 | 6,722 | 4.38 |
| Henry | 4241 | 18,806 | 4.43 |
| Jackson | 802 | 21,999 | 27.43 |
| Lake | 11127 | 12,183 | 1.09 |
| Liberty | 1624 | 21,585 | 13.29 |
| Middleton | 4543 | 15,195 | 3.34 |
| Milton | 877 | 21,600 | 24.63 |
| Montgomery | 4290 | 19,453 | 4.53 |
| Perry | 1517 | 20,424 | 13.46 |
| Perrysburg | 12482 | 13,054 | 1.05 |
| Plain | 1950 | 12,316 | 6.32 |
| Portage | 1628 | 20,407 | 12.53 |
| Troy | 3924 | 13,867 | 3.53 |
| Washington | 2040 | 10,152 | 4.98 |
| Webster | 1211 | 16,803 | 13.88 |
| Weston | 2377 | 7,542 | 3.17 |
| **Total Townships** | **62,988** | **301,445** | **4.79** |
| **Total All** | **128,139** | **304,954** | **2.38** |

*Figure 36: Agricultural Acreage per Capita for Wood County (Source: American Community Survey 2014 and Wood County Auditor Parcel Data 2016)*

Several factors contribute to optimal use of agriculture land – prime farming soils, low slopes, and proper drainage. The United States Department of Agriculture (USDA) and National Resources Conservation Service (NRCS) conduct regular soil surveys and maintain soil data including information about soil properties and qualities as well as suitabilities and limitations for use (https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx).

While Wood County has substantial acreage of prime farmland soils, a vast majority of the agricultural parcels have slopes less than 1% and are not located in 'A' flood zones.

| | Acres | Percent |
|---|---|---|
| Prime Soils | 284,407 | 93.26% |
| Slopes <1% | 46,968 | 17.44% |
| Good drainage | 10,652 | 3.96% |
| Total Agriculture | 304,954 | |

*Figure 37: Agricultural Land Use Audit Wood County (Source: Wood County Auditor Parcel Data 2016and USDA/NRCS Soil Survey))*

Consolidating the three factors together presents a more comprehensive view of agricultural land in Wood County. Each parcel with one of the above factors was assigned a value of 1. The values were added up to tabulate the acreage and percentage of land with 1, 2 or 3 contributing factors. While the proportion of agricultural parcels with all three contributing factors is only 6.21%, a majority of agricultural parcels in Wood County have at least two contributing factors.

| | Acres | Percent |
|---|---|---|
| Ag Value = 1 | 233,979 | 76.73% |
| Ag Value = 2 | 57,095 | 18.72% |
| Ag Value = 3 | 12,713 | 4.17% |
| Total Agriculture | 304,954 | |

*Figure 38: Agricultural Land Use Audit Wood County (Source: Wood County Auditor Parcel Data 2016)*

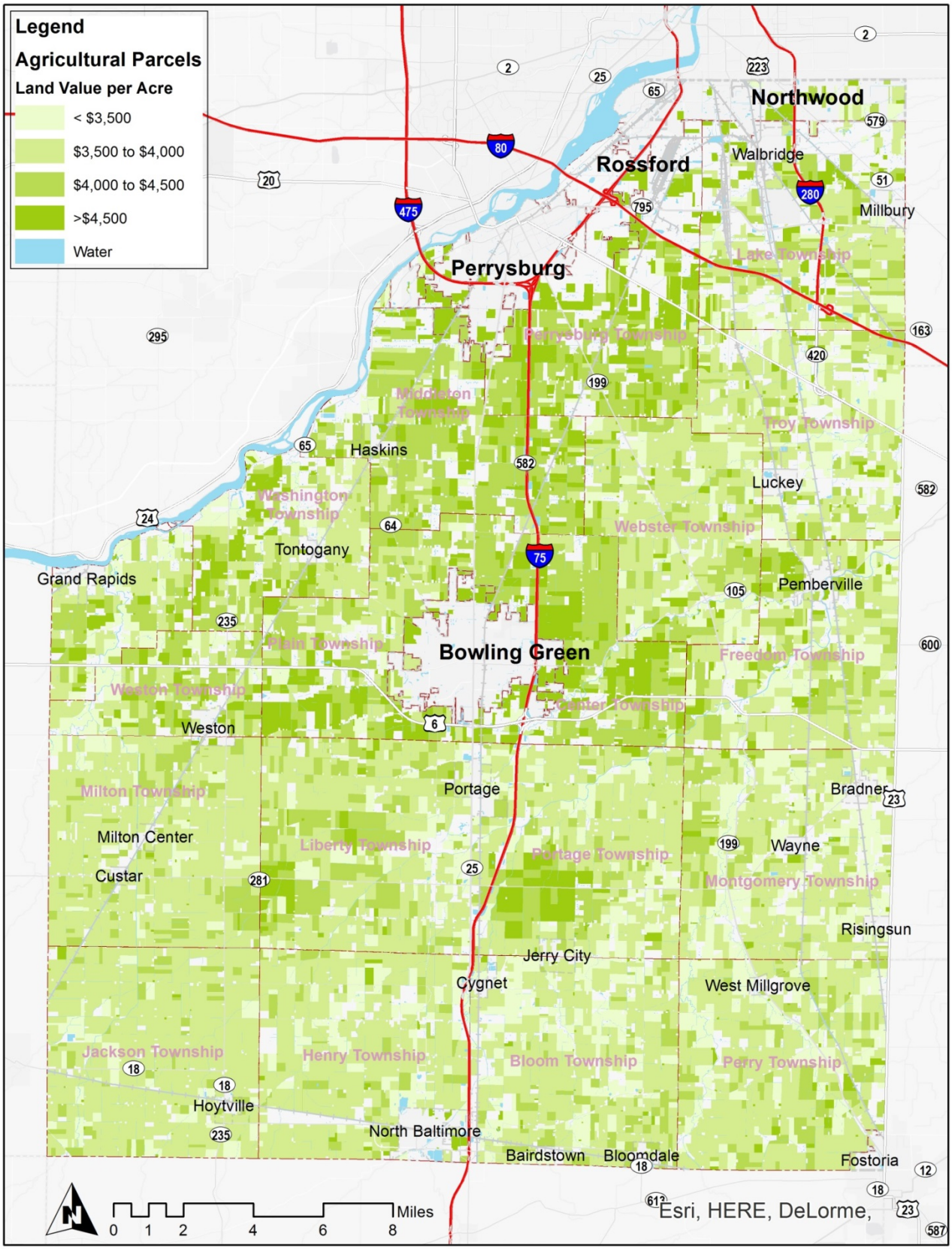



*Figure 39: Agricultural Land Value in Wood County (Source: Wood County Auditor Parcel Data 2016)*

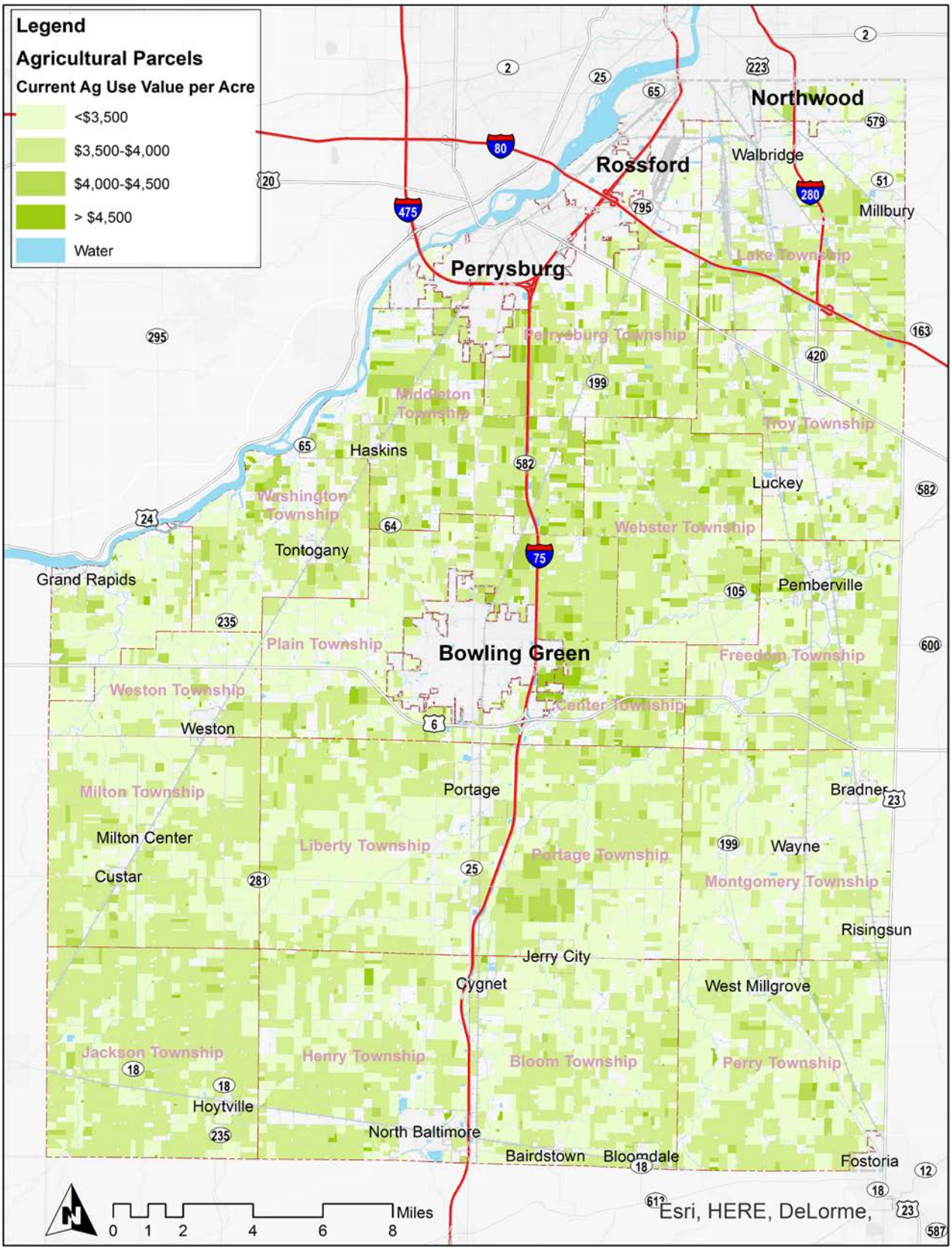



*Figure 40: Current Agricultural Use Value in Wood County (Source: Wood County Auditor Parcel Data 2016)*

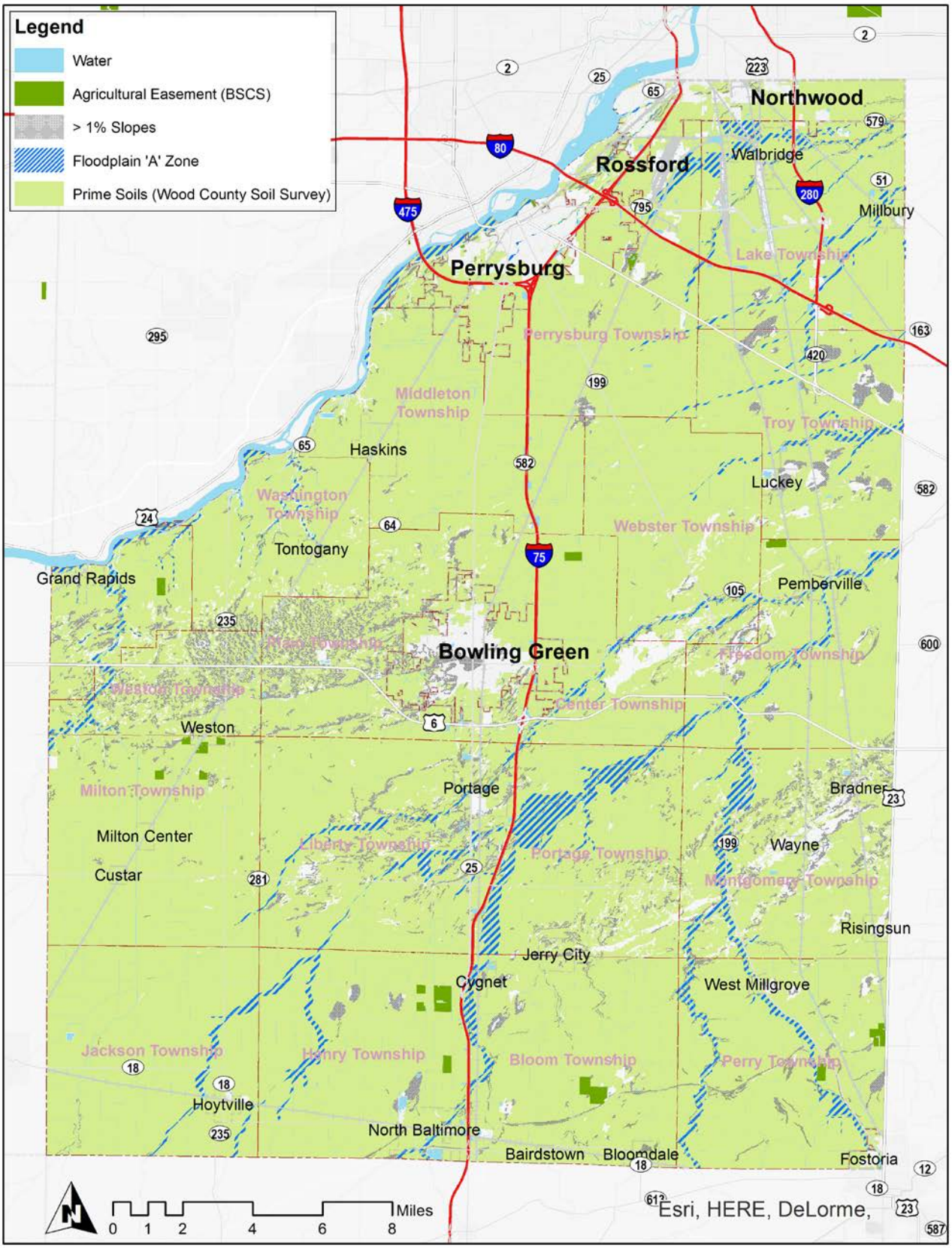



*Figure 41: Contributing Factors to Agricultural Use in Wood County (Source: Wood County Auditor Parcel Data 2016)*

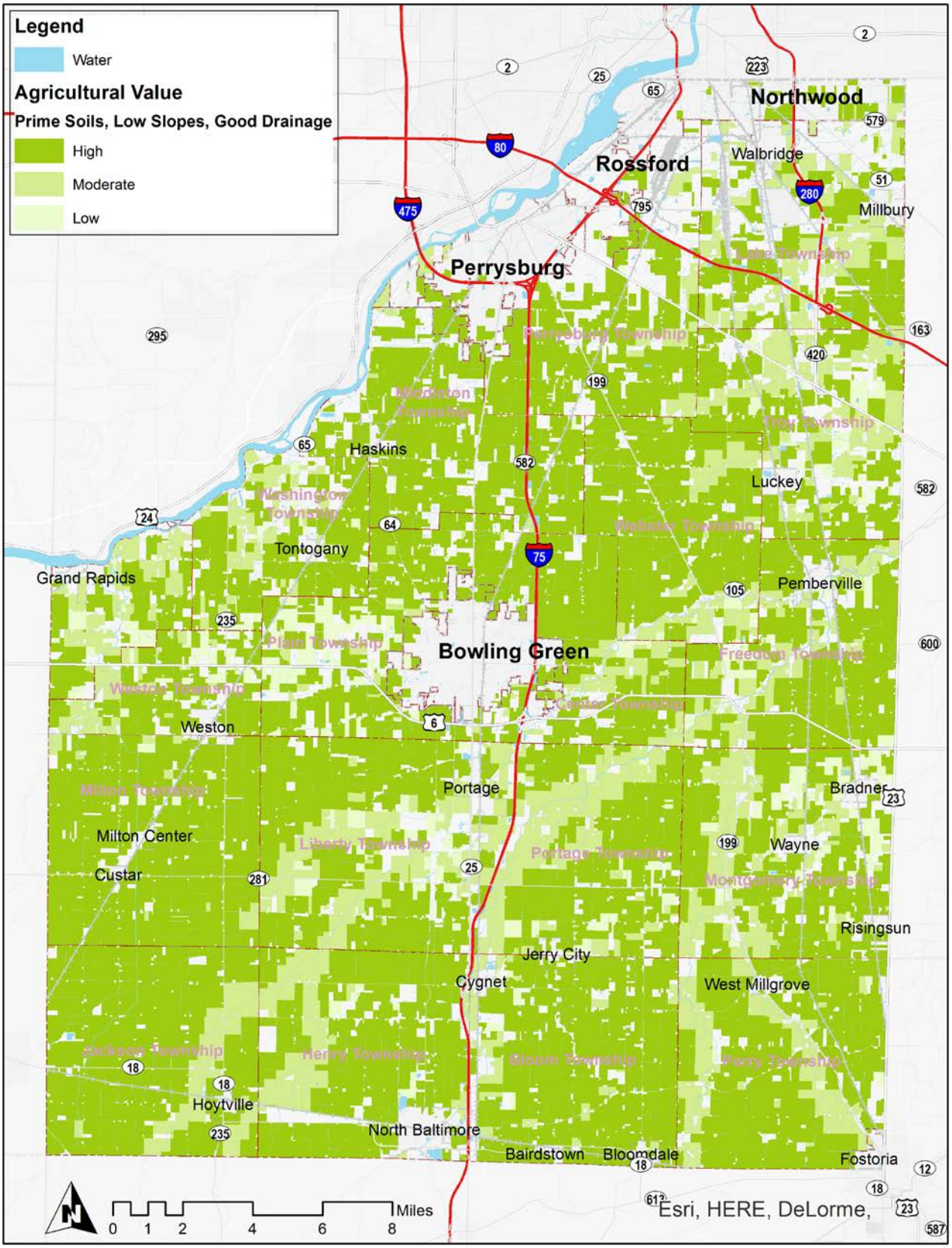



*Figure 42: Agricultural Use in Wood County (Source: Wood County Auditor Parcel Data 2016)*

## Water and Sanitary/Sewer Service

Water and sanitary/sewer service in Wood County is mostly focused in the cities and townships adjoining the major cities. The data for the following map was provided by Northwestern Water & Sewer District. The cities maintain the water and sewer data for their jurisdiction. The following maps include water and sewer data for Perrysburg, Rossford and Northwood but not Bowling Green.

The USDA/NRCS soil survey evaluates the suitability of soils for septic facilities and rates the majority of soil in Wood County as somewhat or very limited. For more details, refer to the Web Soil Survey Application at https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx.

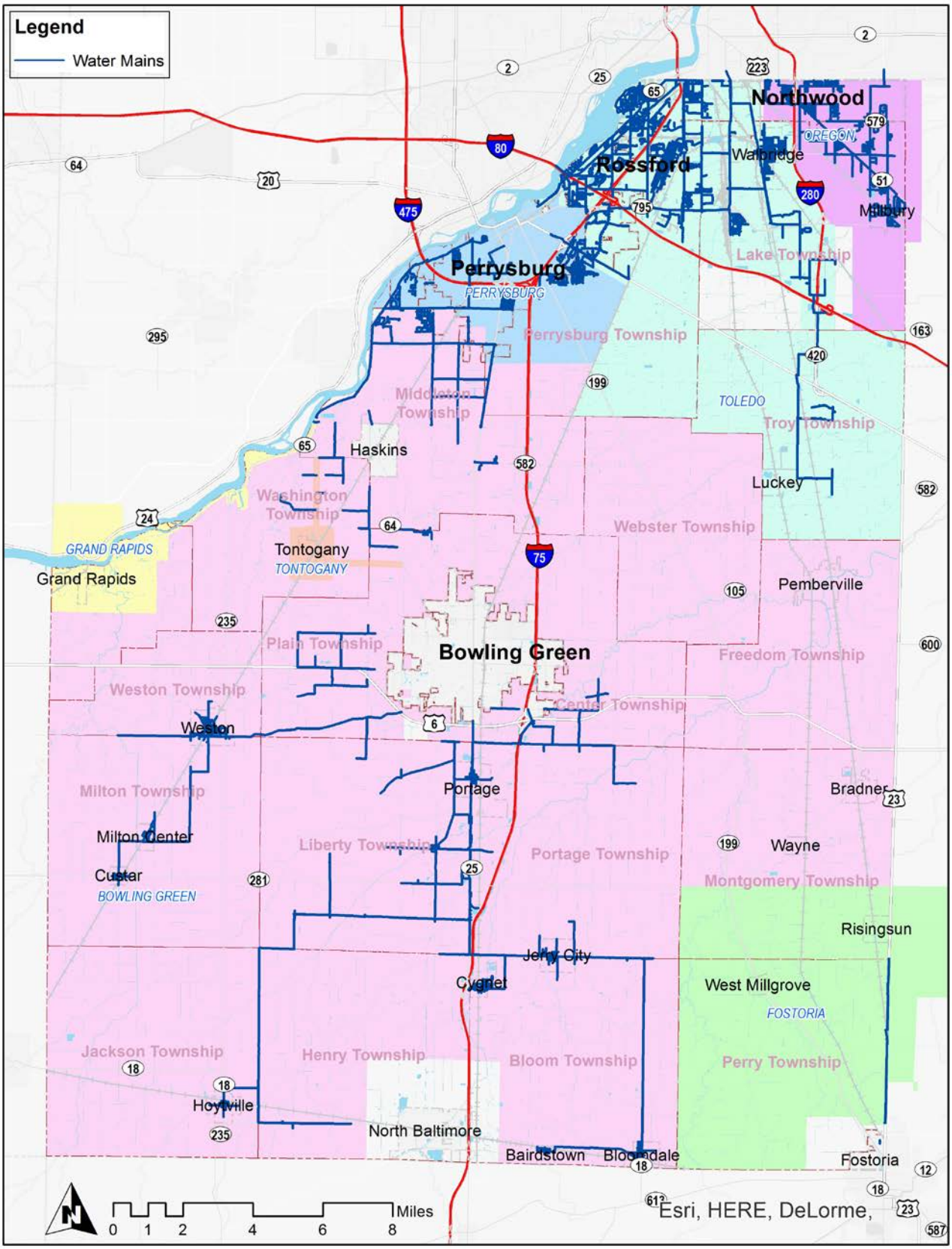



*Figure 43: Water Service Districts and Mains in Wood County (Source: Northwestern Water & Sewer District Data 2016)*

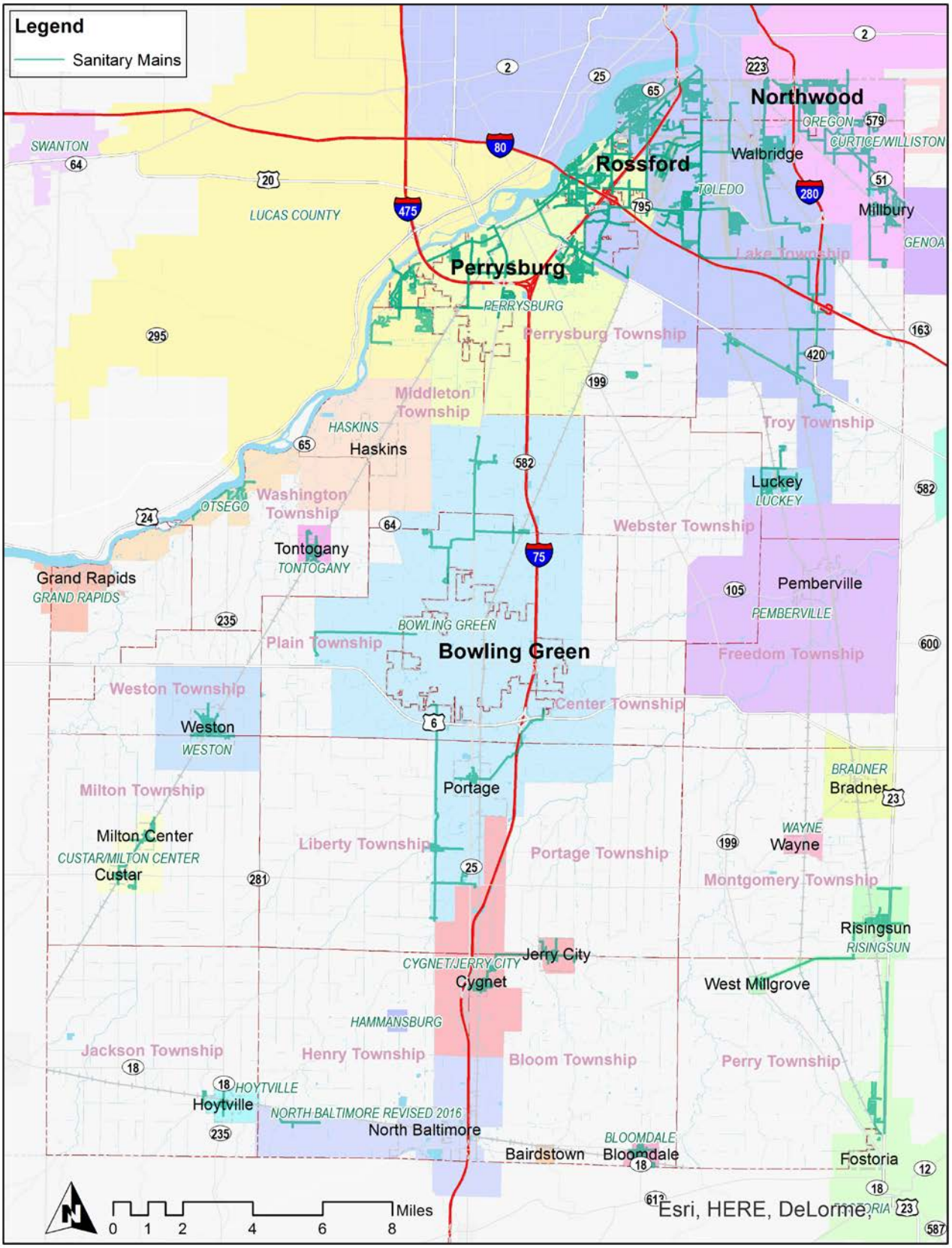



*Figure 44: Sanitary Facilities Planning Areas and Mains in Wood County (Source: Northwestern Water & Sewer District Data 2016)*

# RESIDENTIAL/NON-RESIDENTIAL LAND DEMAND

Using Census/American Community Survey (ACS) population estimates for 2014, population forecasts for 2050, and existing land use data, MDC estimated existing residential and non-residential land supply for 2014 and future residential and non-residential land demand for 2050. The non-residential land demand estimates include the following use categories: commercial, industrial, and public. In addition to residential and non-residential uses, this analysis also looked at land allocation and demand for parks/open space.

In this analysis, existing land use acreage was distributed based on 2014 Census/ACS population estimates to calculate per capita land usage for residential and non-residential uses. The per capita land use estimates were attributed to 2050 population forecasts to calculate residential and non-residential land demand. The current distribution of population between cities and townships was held constant for 2050 population distribution. This analysis also holds other residential and non-residential development trends, such as household size and vacancy, constant through 2050. The township estimates include any villages included within the township boundaries.

| | | Existing (2014) | | |
|---|---|---|---|---|
| | | **All** | **Cities** | **Townships** |
| | **Total Population** | **128,139** | **65,151** | **62,988** |
| | Population Distribution | | 50.84% | 49.16% |
| **Land Allocation** | **Residential Total Acres** | **56,927** | **9,713** | **47,213** |
| | **Residential Vacant** | **2.72%** | **5.42%** | **2.16%** |
| | **Residential Acres per Capita** | **0.44** | **0.15** | **0.75** |
| | **Non-Residential Total Acres** | **23,626** | **9,871** | **13,755** |
| | Commercial | 10,003 | 7,411 | 5,667 |
| | Industrial | 6,503 | 2,301 | 4,202 |
| | Public | 7,121 | 3,235 | 3,885 |
| | **Non-Residential Vacant** | **17.31%** | **27.83%** | **9.75%** |
| | Commercial | 25.91% | 41.70% | 13.83% |
| | Industrial | 23.02% | 40.82% | 13.27% |
| | Public | 0.00% | 0.00% | 0.00% |
| | **Non-Residential Acres per Capita** | **0.18** | **0.15** | **0.22** |
| | Commercial | 0.08 | 0.07 | 0.09 |
| | Industrial | 0.05 | 0.04 | 0.07 |
| | Public | 0.06 | 0.05 | 0.06 |
| | **Parks/Open Space Total Acres** | **1,694** | **167** | **1,526** |
| | **Parks/Open Space Acres per Capita** | **0.01** | **0.00** | **0.02** |

*Figure 45: Existing(2014) Population Distribution and Residential/Non-Residential Land Allocation for Wood County (Source: Census/ACS 2014, MDC Population 2016, Wood County Auditor Parcel Data 2016)*

Based on Census/ACS population estimates for 2014, 50.84% of Wood County's population was located in cities and 49.16% in townships. It is anticipated that Wood County's population will

grow to 131,332 by 2050. While there are some demographic indicators that suggest a shift in population from rural to urban, this land demand analysis holds this population distribution constant.

As anticipated, per capita land allocation for residential and non-residential uses is higher in townships compared to the cities. Although cities constitute only 7% of total land acres in Wood County, cities include a significant proportion of population and have higher density of residential and higher intensity of non-residential land uses. The primarily rural/agricultural character of the townships results in 0.75 acres per capita residential land allocation which id significantly higher than the cities at 0.15 acres per capita of residential land allocation. On the other hand, the townships include insignificant commercial, industrial or public uses which results in a non-residential land allocation of 0.06 acres per capita. The public land use category also includes an open space component. The parks/open space category only includes lands that are identified in the Wood County Auditor's database as such.

Vacancy of residential and non-residential land is higher in cities compared to townships. Vacancy of commercial and industrial land is as high 41% which is indicative of lack of investment and locational/dimensional inefficiency in land use allocation. Vacant public land is not reported in the Wood County Auditor's parcel database.

| | | Trend (2050) | | |
|---|---|---|---|---|
| | | **All** | **Cities** | **Townships** |
| | **Total Population** | **131,332** | **66,774** | **64,558** |
| | Population Distribution | | 50.84% | 49.16% |
| **Land Demand** | **Residential New Acres** | **1,419** | **242** | **1,176** |
| | **Non-Residential New Acres** | **589** | **246** | **343** |
| | Commercial | 249 | 108 | 141 |
| | Industrial | 162 | 57 | 105 |
| | Public | 177 | 81 | 97 |
| | **Parks/Open Space New Acres** | **42** | **4** | **38** |
| | **Total Land Demand in New Acres** | **2,049** | **492** | **1,557** |
| **Land Capacity** | **Available Land Total Acres** | **310,590** | **6,783** | **303,807** |
| | Residential Vacant | 1,546 | 526 | 1,020 |
| | Non-Residential Vacant | 4,089 | 2,747 | 1,342 |
| | Agricultural | 304,954 | 3,510 | 301,445 |
| | **Percent of Available Land needed to meet Demand** | **0.66%** | **7.26%** | **0.51%** |
| | Residential | 0.46% | 3.57% | 0.39% |
| | Non-Residential | 0.19% | 3.63% | 0.11% |
| | Parks/Open Space | 0.01% | 0.06% | 0.01% |

*Figure 46: Trend (2050) Population Distribution and Residential/Non-Residential Land Demand for Wood County (Source: Census/ACS 2014, MDC Population 2016, Wood County Auditor Parcel Data 2016)*

Future land demand was estimated based on the existing per capita land allocations for both residential and non-residential uses. The analysis estimates an overall demand for 1,419 new residential acres. A significant portion of this land demand (1,176 acres) is anticipated in townships since the per capita residential land allocation in townships is higher than the cities. On the other hand, the analysis estimates 589 acres of non-residential land demand overall. A little less than half the non-residential land demand is for new commercial acreage. The analysis also estimated a demand for 177 new acres of public land and 42 acres of parks/open space through 2050.

Wood County has an estimated 310,590 acres of land available to meet future land demand. This estimate of available land includes vacant residential and non-residential land as well as agricultural land. Given the large inventory of available land and the marginal future land demand, the percent of available land needed to meet demand overall is only 0.66%. The highest proportion of overall land demand is in the cities where the supply of land for future use is limited.