

## Land Use in Big Creek Watershed

Land use provides an insight into development patterns and target populations for education, and influences the health of the watershed. How land is developed and maintained has an impact on the waterway system, transportation system, and the general character of the community. Figure 22 shows the distribution of the major land uses within the Big Creek Watershed.

During the period immediately following World War II, many communities sought to attract business, industrial, and residential growth for a number of reasons. Among these reasons was the thought that economic growth would raise the property tax base and generate increased revenues for local infrastructure, including schools, roads, and fire and police protection.

More recently, studies on the cost of community services for residential development have shown that the actual cost of services is substantially higher than tax revenues collected. Thus residential land is a net drain on local government budgets. Conversely, the cost of services for commercial/industrial land, as well as open space and agriculture, is substantially less than what a community collects; providing a greater benefit to local communities.

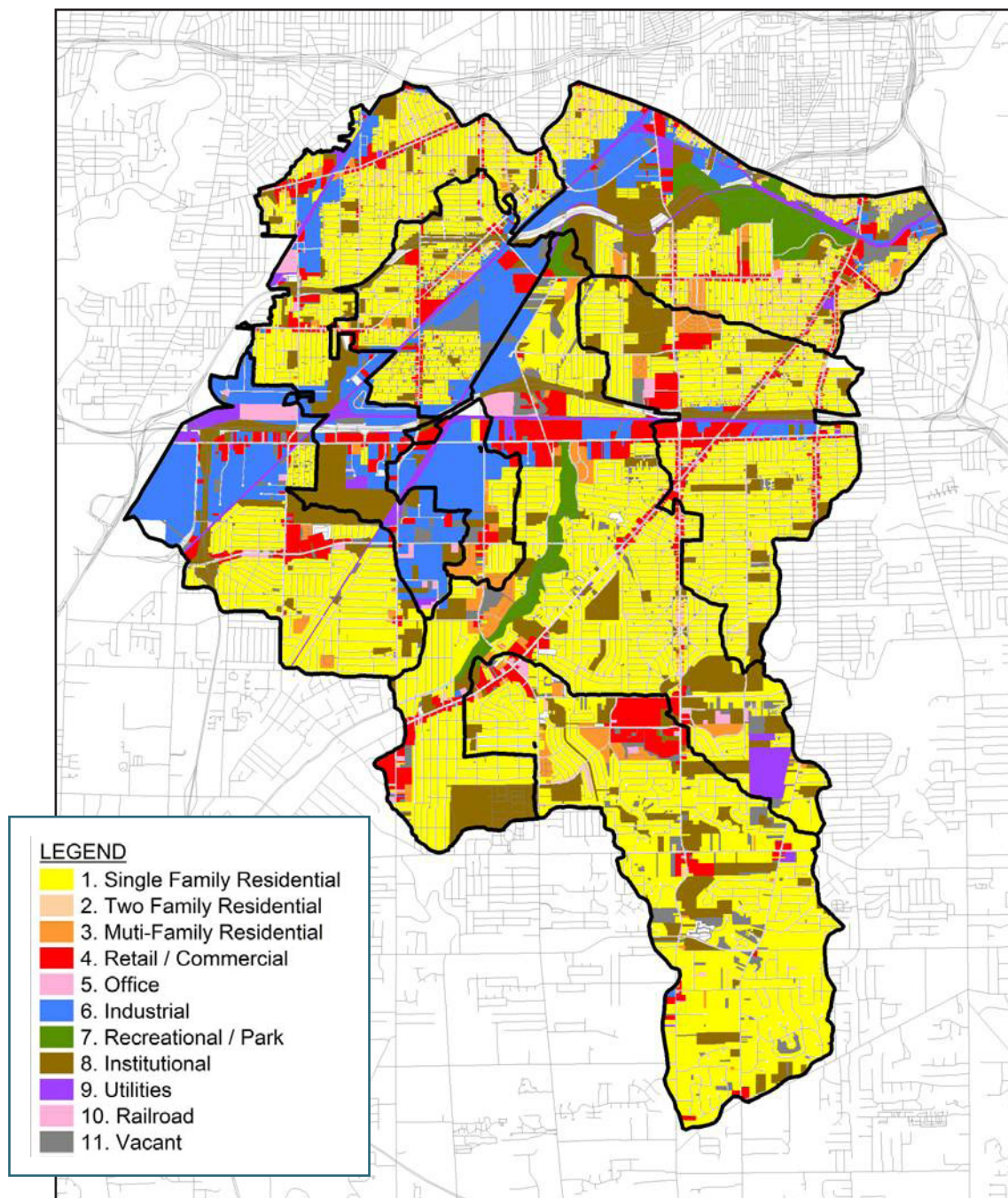
In Big Creek residential land use (single, two and multi-family) comprised the largest percentage of the watershed with approximately 52%. This was followed by institutional land use at 15%, industrial 11% and retail commercial with 7%.

Since residential land comprises over half of the watershed, stormwater practices should be directed toward as many homeowner properties as possible.

Policies, incentives and funding should be used to assist homeowners in retrofitting their properties with best management practices to reduce stormwater runoff and pollution.

Big Creek Watershed			Cuyahoga County	
Land Use	Acres	Pct of Watershed	ACRES	PERCENT
1. Single Family Residential	9,545	47.0%	118,135	45.0%
2. Two Family Residential	489	2.4%	6,674	2.5%
3. Multi Family Residential	639	3.1%	6,035	2.3%
4. Retail Commercial	1,525	7.5%	11,843	4.5%
5. Office	197	1.0%	3,373	1.3%
6. Industrial	2,306	11.4%	18,342	7.0%
7. Recreational, Park, Playground,	557	2.7%	19,678	7.5%
8. Institutional	3,118	15.4%	39,568	15.1%
9. Utilities	652	3.2%	3,856	1.5%
10. Railroads	49	0.2%	49	0.0%
11. Vacant Land	966	4.8%	25,941	9.9%
12. Agricultural		0.0%	1,151	0.4%
N/A	258	1.3%	7,783	3.0%
<b>Total Watershed:</b>	<b>20,301</b>	<b>100.0%</b>	<b>262,429</b>	<b>100.0%</b>

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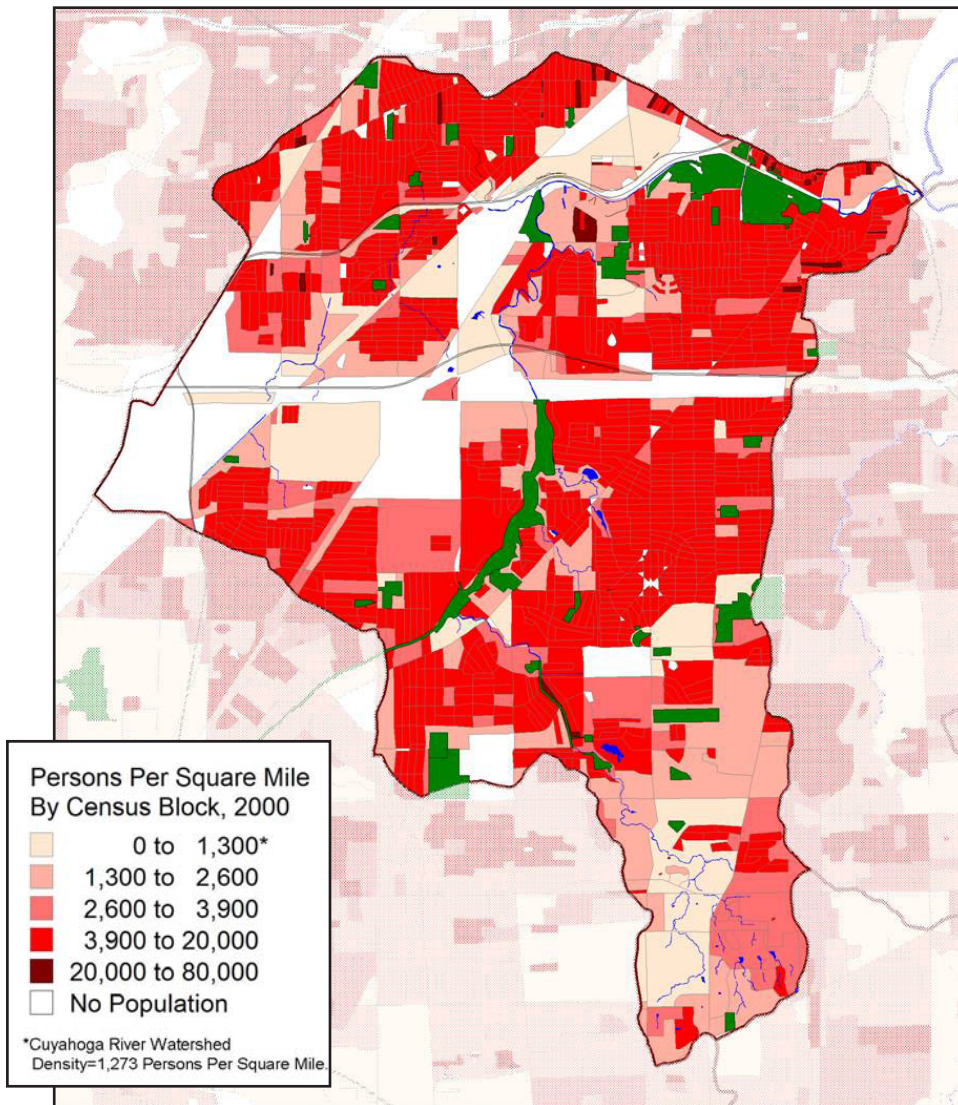


### Demographics of the Big Creek Watershed

Future patterns of growth in the region show that the trend of migration away from the larger cities is expected to continue. Overall, the total population of northeast Ohio is expected to grow very little over the next 20 years. However, the population base is expected to continue its shift away from the traditional urban population centers in the region. While the region is not adding a significant number of new people, we are still consuming new land.

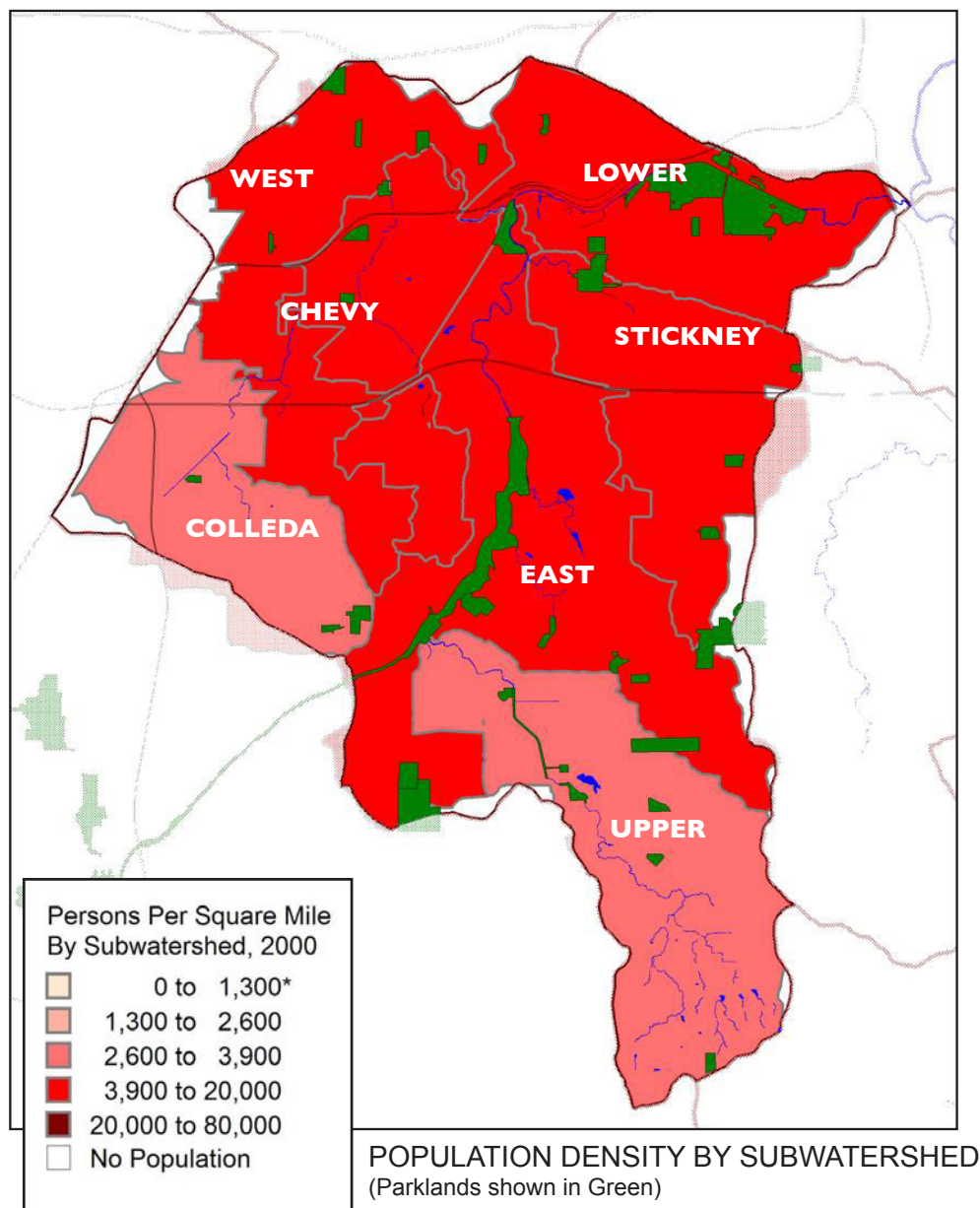
The Big Creek Watershed is one of the most highly urbanized watersheds within the Cuyahoga River Watershed and northeast Ohio. According to 2000 Census figures, Big Creek watershed contains approximately 168,727 people within the watershed boundary. The average number of persons per square mile equals 4,594. The Stickney Creek subwatershed contains the most people per square mile with 6,350 and the Upper subwatershed contains the least with 3,208. For reference, the Cuyahoga River Watershed averages 1,273 persons per square mile.

Most of the Big Creek Watershed Census Blocks contain 3,900 to 20,000 people per square mile.



POPULATION DENSITY BY CENSUS BLOCKS  
(Parklands shown in Green. Industrial and Businesses shown in White)

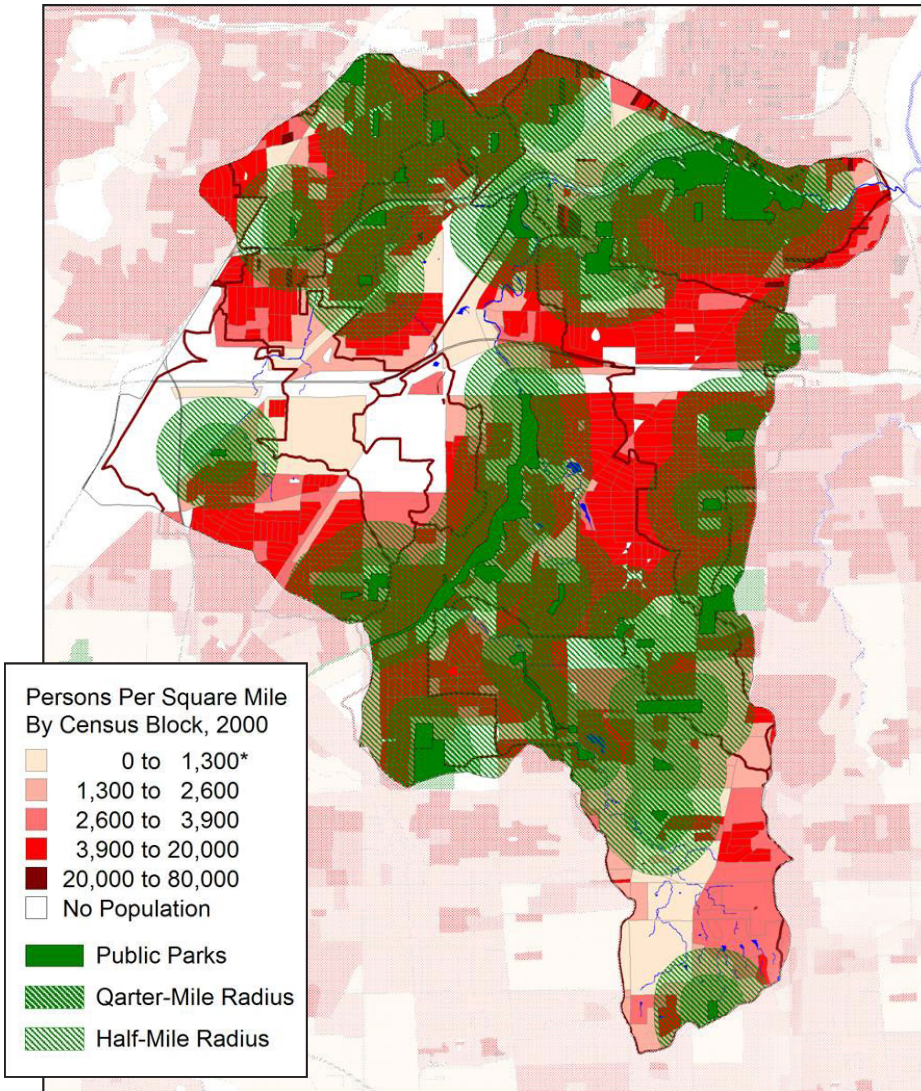
Demographics, Land Use and Development in the Big Creek Watershed



TRIBUTARY	POPULATION	SQUARE MILES	DENSITY (PERSONS/ SQUARE MILE)	RANK
Stickney Creek	28,768	4.53	6,350.55	1
Lower Big Creek	27,875	4.85	5,747.42	2
West Branch	26,536	4.88	5,437.70	3
Chevy Branch	16,039	3.51	4,569.52	4
East Branch	35,403	8.49	4,169.96	5
Colleda Branch	13,539	4.06	3,334.73	6
Upper	20,567	6.41	3,208.38	7
<b>TOTAL</b>	<b>168,727</b>	<b>36.73</b>	<b>4,593.71</b>	

Park Systems & Proximity to Population

The map below shows that the established park systems in the watershed are extremely valuable as they serve very large populations. We measured populations within 0.25 and 0.50 mile radii from the parks within the Big Creek Watershed. Such a measurement provides an insight into the usability and proximity of people to greenspaces. There are approximately 74,016 people (42% of the watershed population) within 0.25 mile distance from a park. There are also 128,287 people (74% of the watershed population) within 0.50 mile distance from a park.



POPULATION DENSITY & DISTANCE FROM PUBLIC PARKS

DISTANCE	AREA	POPULATION	PERCENT
0.25 mi	14.1623 mi <sup>2</sup>	74,016	42.8%
0.50 mi	25.1511 mi <sup>2</sup>	128,187	74.2%
<b>TOTAL</b>		172,890	100%

### Primary & Secondary School Systems in Big Creek Watershed

The Big Creek watershed contains numerous schools to engage in watershed stewardship related activities. Each one of these schools presents an opportunity to educate the public and implement watershed restoration projects. In the Big Creek Watershed there are 54 primary and secondary schools, which includes 24,533 students and 2,380 teachers. This amount of students and teachers represent a big educational opportunity and potentially a significant number of volunteers for projects. Also, there are four school properties that touch Big Creek or a tributary. These properties are a particular interest for restoration projects.

