

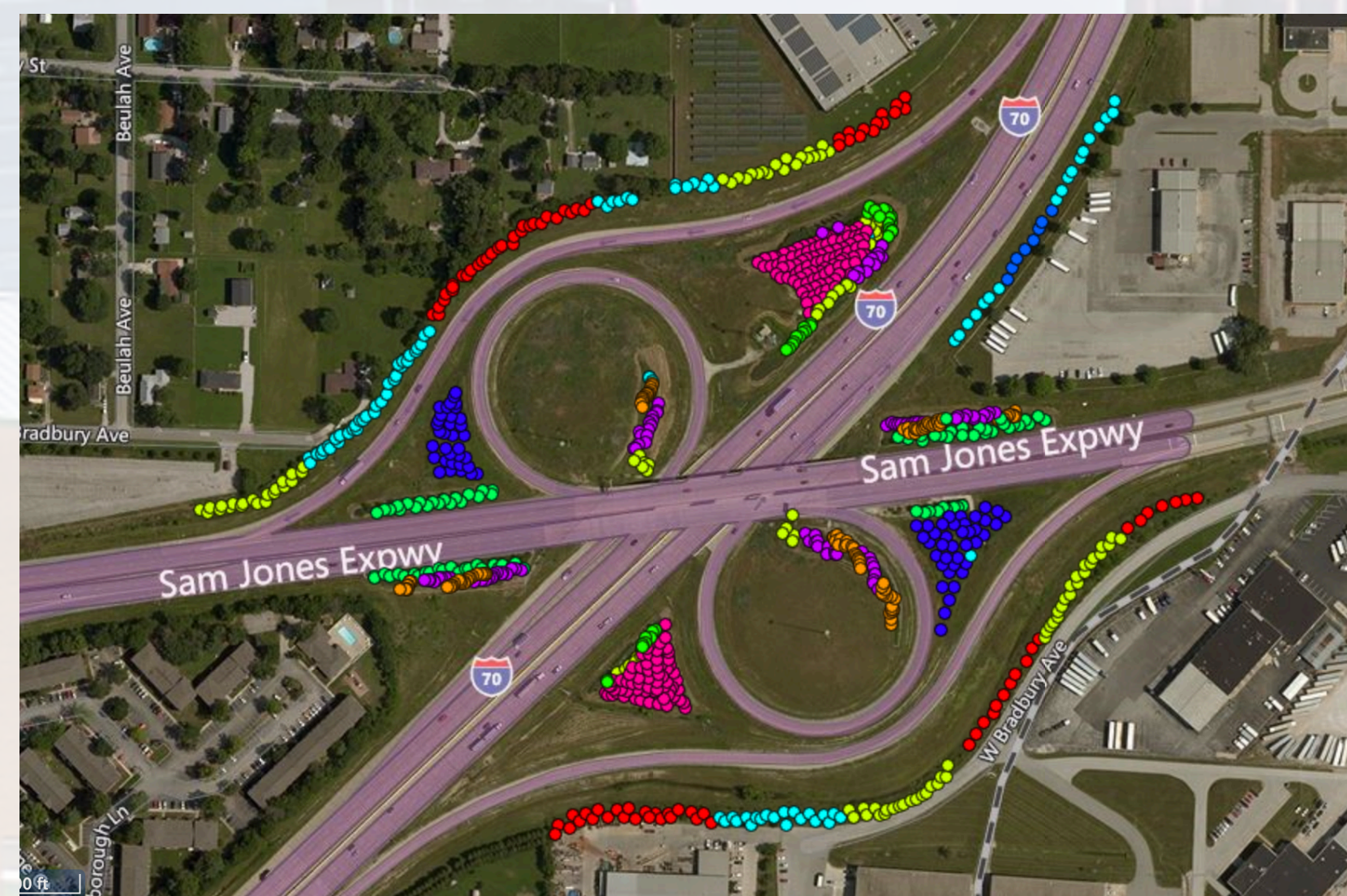
# KIB Canopy Planner Analysis: Warren Township

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## Introduction

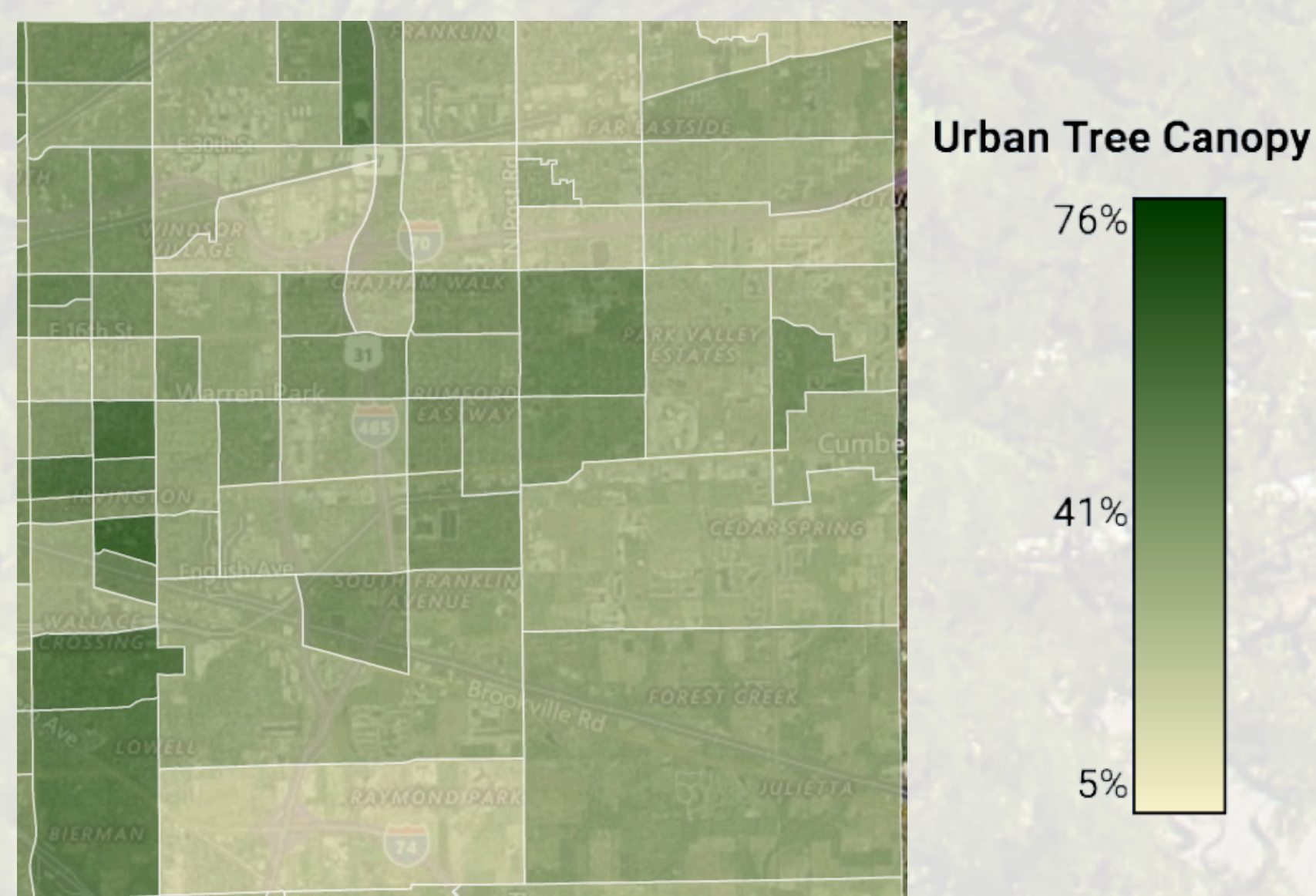
Our team of three worked with KIB's Tree Canopy Planner and other research data in order to explore the most important aspects in Canopy planning in Warren Township in Marion County, Indiana.



**Figure 1.** Sam Jones Expressway and I-70 interchange: apart of the Eli Lilly Service Day October 7, 2010 Project of 8,000 volunteers and planting 1,614 trees, 72,304 native plants and shrubs, and installing 2,600 yards of mulch.

## Background Information

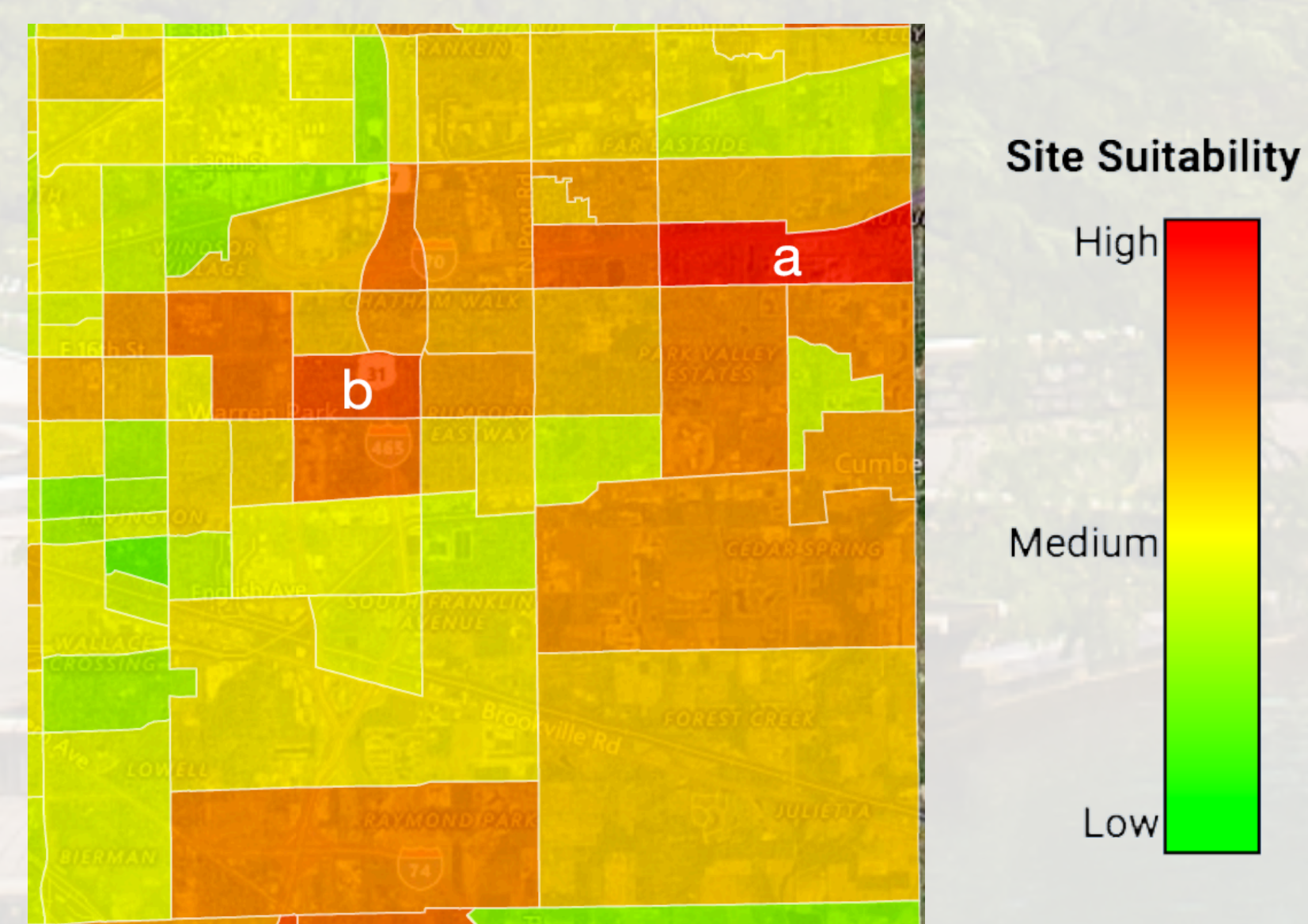
Warren Township has 29% Existing Urban Tree Canopy, 32% Possible Planting Area (Vegetation). The township has a population of 99,433 (2010 Census).



**Figure 2.** Warren Township has 29% existing Urban Tree Canopy, 32% Possible Planting Area (Vegetation).

## Plan and Justifications

Possible UTC and Low Existing Tree Canopy are important as we focus on areas that are in need of trees and have possible planting sites. This is important to increase future canopy cover while maintaining existing canopy in Warren Township. The Public Realm Assets layer was applied to illustrate areas that KIB and the City of Indianapolis have more control over the canopy. We believe it is important to encourage community care even in these areas. The community population vastly outnumbers the small staff of both KIB and City employees. We believe that the Vulnerable Populations filter is especially relevant to Warren Township, due to the slightly higher-than-average child population (under 18) and the above average portion of the township that is below the poverty line. Census data from 2015 provided a few statistics in this area. See the following figures for further justifications and recommendations.



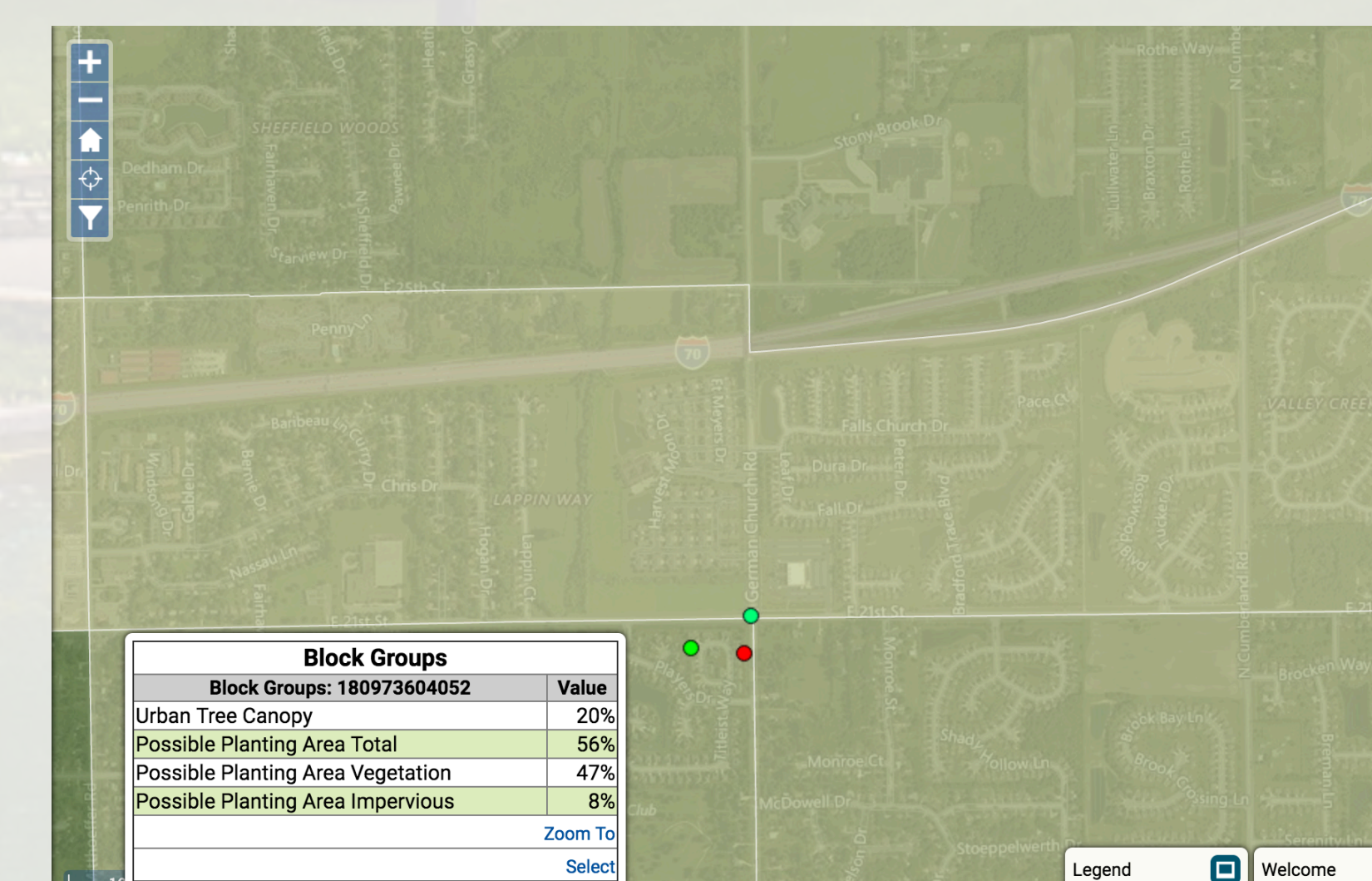
**Figure 3.** Warren Township canopy plan: Possible UTC (high), Low Existing Tree Canopy (high), Public Realm Assets (high), Vulnerable Populations (high), Energy Savings (low)

Warren Township, due to the slightly higher-than-average child population (under 18) and the above average portion of the township that is below the poverty line. Vulnerable populations exist in Warren Township according to this data.

	Total Population	Children (Under 18)	Elderly (65 & Older)	Below Poverty Line
Warren Township	103,369	25,842 (25%)	12,404 (12%)	26,979 (26.1%)
State of Indiana	6,619,680	1,588,723 (24%)	992,952 (15%)	959,853 (14.5%)

**Figure 4.** Comparison of populations between Warren Township and the State of Indiana.

We observed (**Figure 3 a**) block group 180973604052 at rank 2/632 and (**Figure 3 b**) block group 180973606022 at rank 13/632. These two blocks were the two highest priorities in the township after our filters were applied. Block a (**Figure 3 a**) has a portion of I-70 running through the north side, and block b (**Figure 3 b**) has a portion of I-465 running through the middle. These areas may be potential sites to implement a planting like Sam Jones Expressway (see **Figure 1**).



**Figure 5.** Block group 180973604052, the highest suitability site for our township and tree canopy plan.

## Recommendations

KIB should partner with school districts, like Warren Township, to see an increase in private tree plantings, tree care and upkeep. Specifically, if KIB were to do planting projects on school property around the county, the students would be involved with their schools and make the entire area more appealing to residents and students. The same goes for universities around the county. Working with students to do tree plantings and care around IUPUI and other institutions would increase revenue and volunteer activity for KIB. Our group believes that the canopy plan filters should be available upon request by those who would like to use it.

## References

- Benefits of Trees. Arbor Day Foundation. Retrieved from <https://www.arborday.org/trees/benefits.cfm>
- The Interchange of Art and Nature: A Greener Welcome. Eli Lilly and Company. Retrieved from <https://investor.lilly.com/releasedetail.cfm?releaseid=515614>
- U.S. Census Bureau (2015). American Community Survey 1-year estimates. Retrieved from Census Reporter Profile page for Warren township, Marion County, IN <https://censusreporter.org/profiles/06000US1809780144-warren-township-marion-county-in/>

## Acknowledgments

We thank Keep Indianapolis Beautiful (KIB) for giving us the opportunity to experiment with their GIS system.