

Decatur in need, Decatur indeed!

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Introduction

The township of Decatur ranks 2nd in areas with low existing tree canopy in Marion county. Strategic efforts to target ideal environments where trees will stay alive and thrive is imperative for KIB to successfully increase and maintain the UTC in Decatur. Utilizing the Tree Canopy Tool to target areas for growth and protection will allow KIB to make a positive difference in Decatur's UTC. This poster will explain why KIB should focus on certain data layers in Decatur, an issue with the possible UTC layer, and provide suggestions and recommendations for KIB to continue their exceptional work.



Figure 1. This is a snapshot of the Decatur township from the Keep Indianapolis Beautiful Tree Canopy Planner.

Data Layers Ranked

1. Public realm assets
 - a. This layer was chosen as our most important layer because the ROW in Decatur is where KIB and Marion county can better leverage their teamwork efforts to increase and sustain UTC in these areas.
2. Air Quality
 - a. This layer was chosen as our second most important layer because there are high amounts of road surface near the airport, and focusing on these areas will help improve air quality throughout the area.
3. Stormwater reduction
 - a. This layer was chosen as our third most important layer because Decatur has low levels of impervious surface. Focusing on planting trees to increase the UTC will add impervious surface to the area and reduce the amount of stormwater runoff which will have many ecological and managerial benefits for the township.

Canopies in Need of Protection

In order to find the canopies most in need of protection, we analyzed the data layers of Water Quality, Air Quality, and Vulnerable Populations. Trees have positive effects on the air and water quality of the surrounding areas. Using these data layers allowed us to target areas where air and water quality are low. Protecting trees in these areas is important because as the trees grow in size and canopy cover, they will provide the maximum amount of benefits towards improving air and water quality. Trees also provide health benefits for individuals, which is especially important for areas with high Vulnerable Populations. When using these data layers together, it revealed that 3 out of the 15 blocks in the Decatur Township were ranked in the top 25% of the highest ranking areas, with two of the blocks being ranked in the top 100 out of 632 block groups. These are the areas in need of protection.

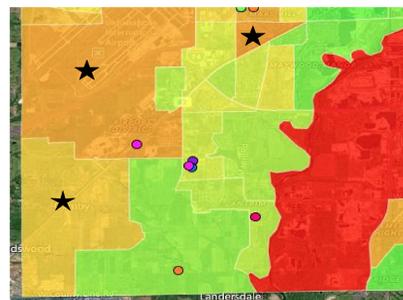


Figure 3. This is a snapshot of the results from when the data layers of Water Quality, Air Quality, and Vulnerable Populations are entered into the Tree Canopy Planner. The Block Groups of most concern have been marked with a star.

Locations in Need of Tree Planting

In order to find the locations most in need of tree planting, we analyzed the data layers of Areas with Low Existing Tree Canopy, Possible Urban Tree Canopy, Areas with Low Economic Vitality, Water Quality, and Public Realm Assets. These data layers highlight where tree planting is needed, and also physically possible and easily influenced. We also found it important to focus assistance in lower economic areas, and target new planting areas close to water. When using all five of these data layers together, it showed that 4 out of the 15 block groups in the Decatur Township are within the top 20% of the highest ranked areas, with two of the blocks being ranked 46th and 47th out of 632 total block groups. These results reflect the areas in need of KIB Community Forestry Assistance.

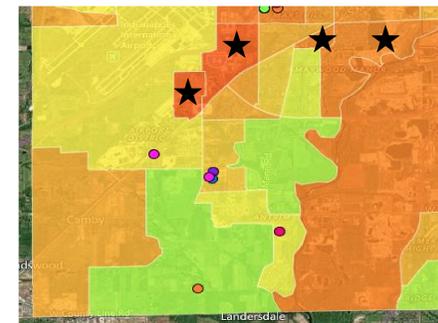


Figure 4. This is a snapshot of the results when the data layers of Areas with Low Existing Tree Canopy, Possible Urban Tree Canopy, Areas with Low Economic Vitality, Water Quality, and Public Real Assets are entered into the Tree Canopy Planner. The block groups most in need of tree planting have been marked with a star.

Issue with Possible UTC

One particular issue our team faced concerning the data layers was the possible UTC layer. It is unclear in its description of what factors are considered for what the layer actually means. It does not clarify if the layer takes into account public or private land, or if these areas are suitable environments for possible UTC to thrive. This layer could provide meaningful information that would help KIB target possible planting areas with a more detailed description of what factors this layer includes. Additionally, this would help someone with little knowledge of the UTC understand the importance of this data layer.

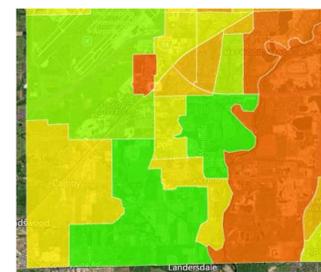


Figure 5. This is a snapshot of the possible UTC in the Decatur township. There are multiple areas in the medium range for possible UTC. However, lack of data description means that we cannot properly use this layer for target planting.

Recommendations

The Tree Canopy Planner tool should be updated in order to make it more useful to the average citizens of Marion County. Changing the name of the tool to something more creative like "KIB Woodland Wizard," might be more effective when trying to grab the attention of laymans of urban forestry. KIB should also be more specific about what certain layers mean, especially the possible Urban Tree Canopy layer, because the names can sometimes be misleading or difficult to interpret. It would be in line with their mission statement if KIB would add a diversity layer to the Tree Canopy Planner, so that people in the county could have a better understanding of which social, ethnic, or socioeconomic groups are neglected when considering canopy cover. In order to make the Tree Canopy Report more user-friendly, it should be simplified and just contain the basic info to citizens. Provide them with information about the ecosystem services provided to them by trees, especially the ones that help them financially. Then give a brief summary of how street trees are distributed throughout the county. Provide areas where canopy cover is lacking and express ways the community can be involved.

Literature cited

Keep Indianapolis Beautiful. "Tree Canopy Planner." *Tree Canopy Planner*. Harris Corp., Earthstar Geographics LLC, 2017. Microsoft Corporation, n.d. Web. 24 Apr. 2017. <<https://pg-cloud.com/KIB/>>.

O'Neil-Dunne, Jarlath. *Tree Canopy Report: Indianapolis-Marion County, IN*. Report. : University of Vermont Spatial Analysis Lab, US Forest Service, 11 Dec. 2015. Web.

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For further information

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