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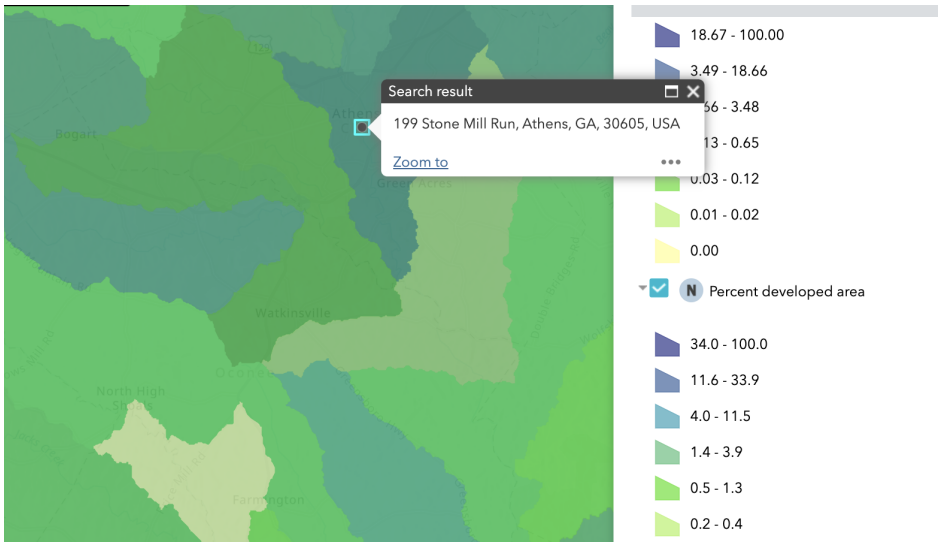
Lab Assignment 3

Watershed: 199 Stone Mill Run

My watershed includes a variety of land cover types including:

- Cropland
- Developed area
- Emergent herbaceous wetlands
- Forest and woody wetlands
- Impervious area
- Tree canopy
- Natural land cover



Zoomed out image

The land cover types in my watershed provide clean and plentiful water, clean air, as well as biodiversity conservation.

The land cover types surrounding my watershed are all relatively homogeneous. This makes sense as the nearby regions are all located in Georgia; furthermore, they share similar climate zones as well as geography. Georgia is saturated with forests and has moderate natural land cover. Nonetheless, watersheds outside of Athens are slightly less developed, and wetlands are more abundant. I attribute this to the fact that wetlands are not usually found in developed areas plus Southern Georgia sustains more marsh-like attributes.

When a raindrop was generated on ArcGIS EnviroAtlas, it traveled .16km from my watershed to the North Oconee River. Since it is located extremely close to the river, the raindrop travels through the same land covers as River Mill: cropland, developed area, emergent herbaceous wetlands, forest and woody wetlands, impervious area, tree canopy, and natural land cover. Unfortunately, the raindrops could become heavily polluted running through toxic human substances like litter/trash, fertilizers, or any other chemicals.

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As I previously mentioned, noxious chemicals originating from the humans residing at the apartments certainly have deleterious effects on water quality. Moreover, potential trash and litter near the catchment may also contaminate the runoff. I would infer that the summer months have a greater negative impact on water quality. More fertilizers are used to deter the influx of insects and maintain plant growth throughout warmer months.

To improve the water quality of the runoff from my chosen watershed, individuals could reduce the utilization of fertilizers/other lawn maintenance chemicals, avoid the removal of native plants in the area as they can act as a filter, strategically place trash disposals away from easy river access points, and reduce air pollution whenever possible. These steps are extremely important, especially when residing in an urban area.