Mapping Flood Susceptibility, Vulnerability, and Risk and Tree Canopy Coverage in Northern Ohio to Inform Stormwater Management and Flood Mitigation Efforts

Community Concerns

Increasing pluvial flooding = heavy rain + aging stormwater infrastructure

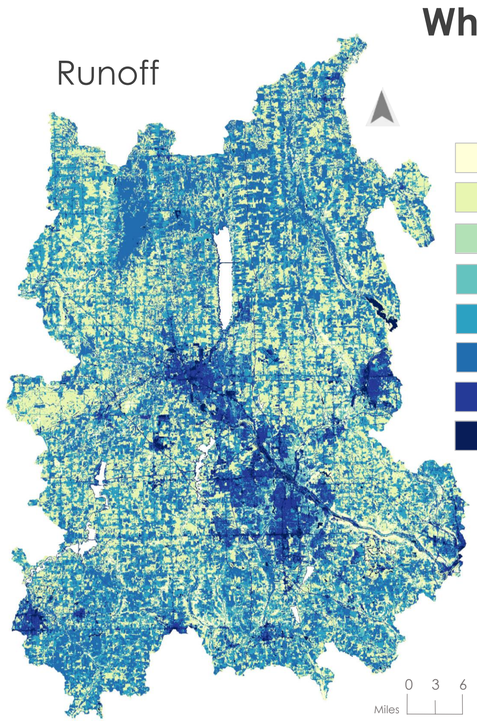
Impacts felt disproportionately by those who are already socially vulnerable

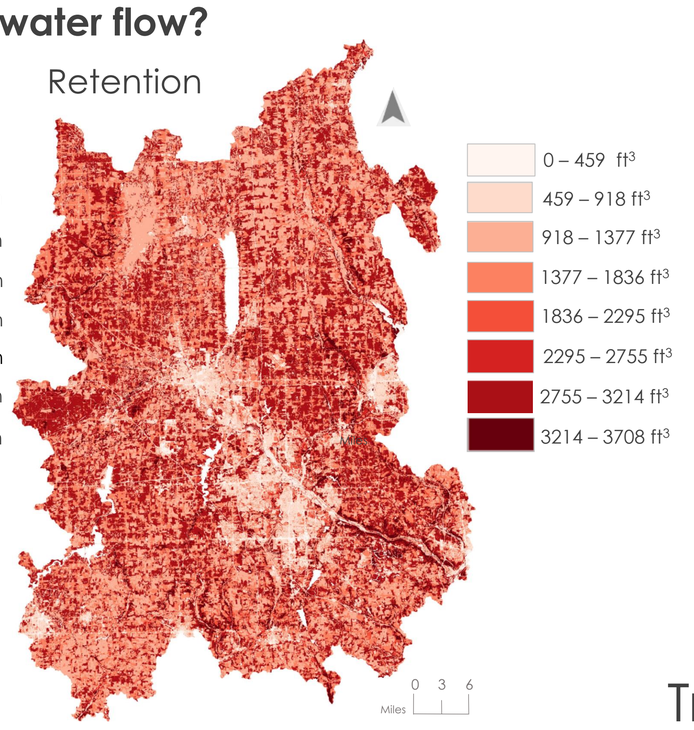
Community Goals

Increase equitable tree canopy cover

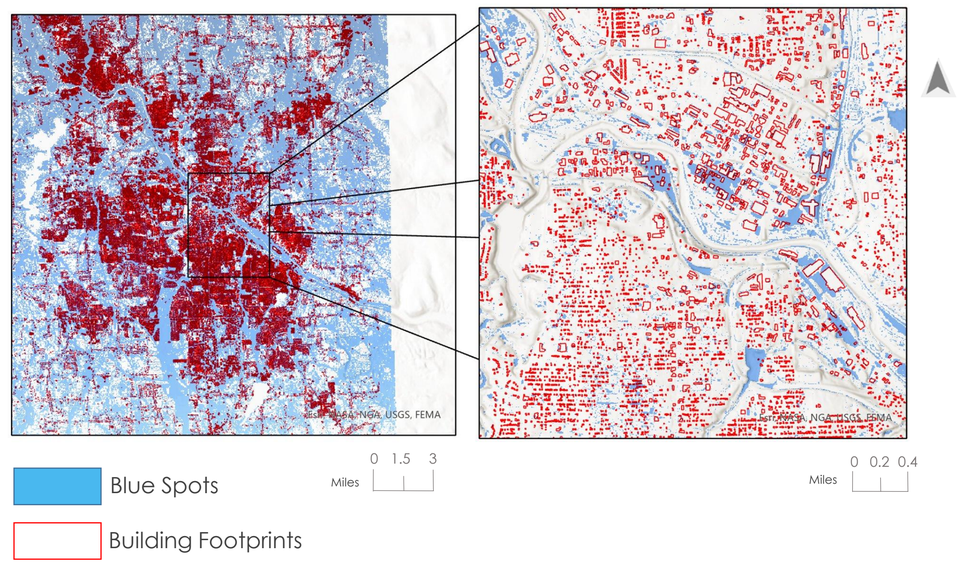
Advance proactive flood measures

Where will water flow?

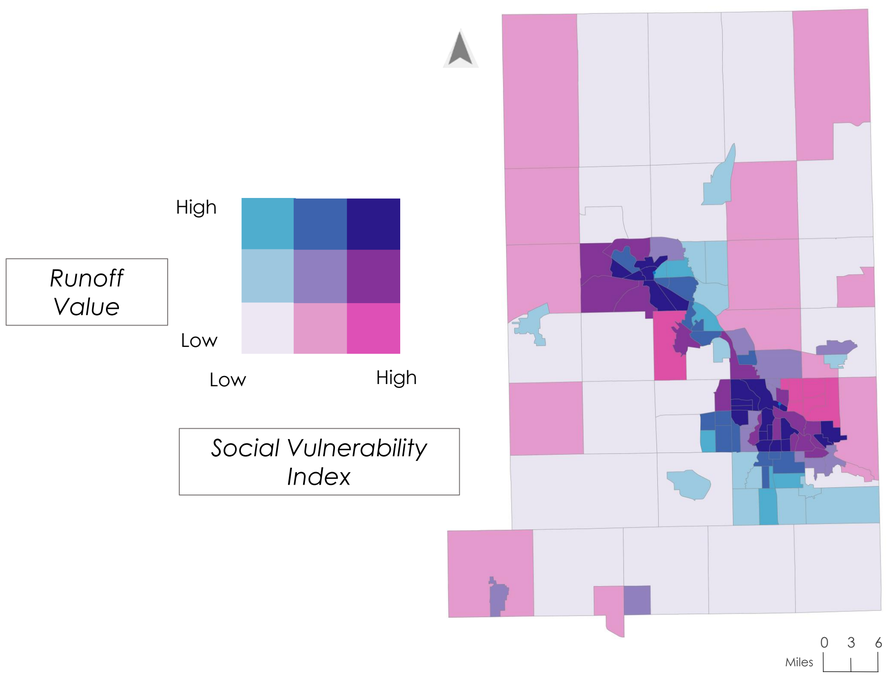




Where will water pool?

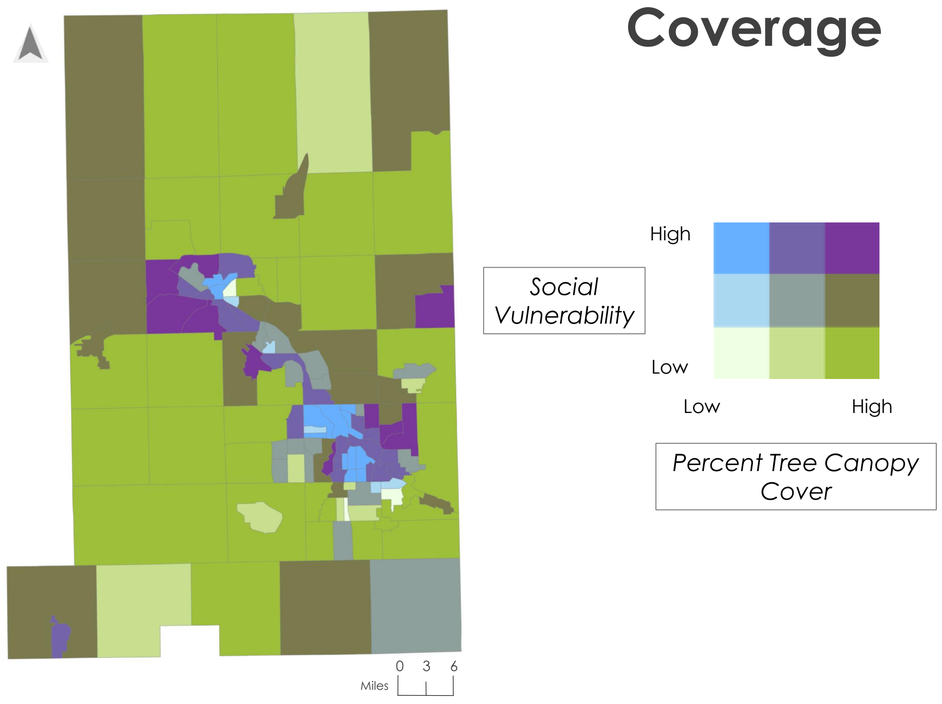


Social Vulnerability + Flood Susceptibility = High Risk Communities



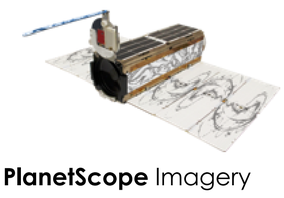
Trumbull and Mahoning Counties can **equitably** adapt to the changing rain regime by implementing **green infrastructure solutions**, such as increasing tree canopy coverage based on **high-risk areas** surrounding Youngstown and Warren.

Urban Flood Mitigation: Tree Canopy Coverage

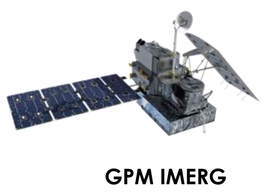


Earth Observations

Exploring **tree canopy coverage** and **precipitation** through satellite data



PlanetScope Imagery



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Disasters

Youngstown and Warren

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