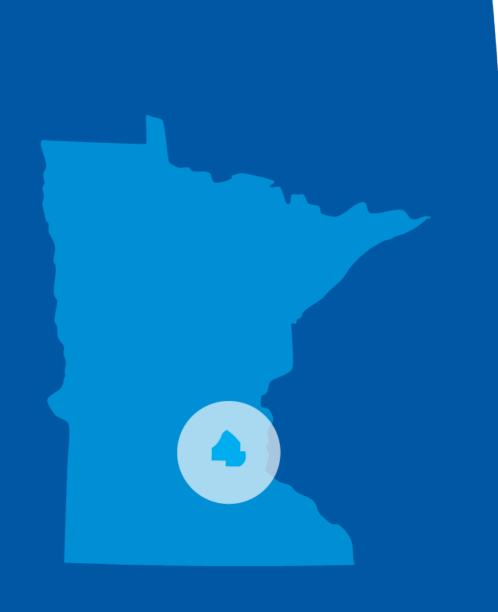


Vulnerable Communities & Environmental Justice

Karen Galles, Environment and Energy Department





Goals

- Ground conversation in what "environmental justice" and intersections with watershed management
- Provide context around who is vulnerable and how you might use that information to consider equity in your work



Environmental Justice Definition - MPCA

Communities of color, Indigenous communities, and low-income communities have the **right to enjoy** a healthy environment and to **fair treatment** with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

Principles of Environmental Justice:

- Ensure full and fair participation in policy and decision making
- Share equally in benefits
- Mitigate disproportionate adverse impacts



Resilience to acute hazards

The ability of a resident to respond determines whether a flood or other hazardous event is:

- An inconvenience
- A manageable problem
- A catastrophic event



Enjoy & Access - Today

The ability of a resident to enjoy and access water and natural resources in their neighborhood is a factor of:

 Past decisions, past investments, and past solutions that ignored (or largely ignored) equity considerations



Enjoy & Access - Future

The ability of our next generation of residents to enjoy and access water and natural resources in their neighborhood will be a factor of:

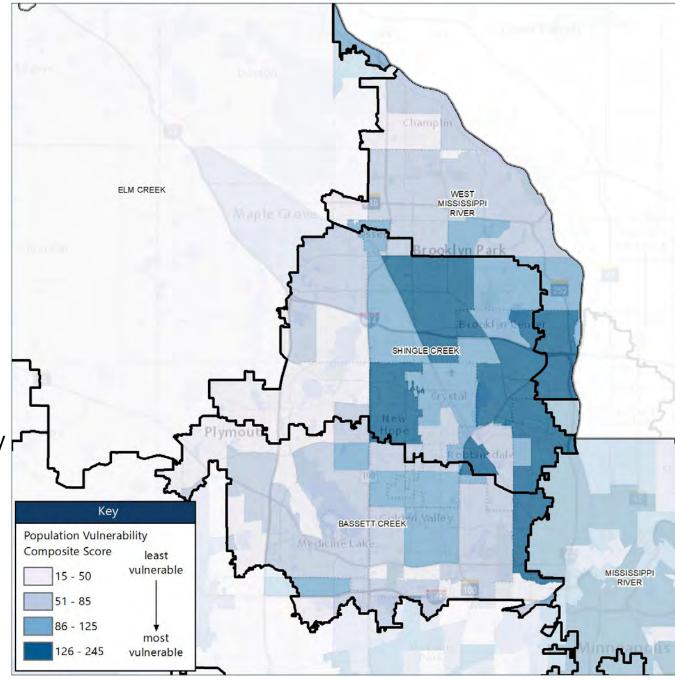
- Future decisions, future investments, and future solutions that consider equity and seek to achieve multiple benefits
- Balancing stormwater storage and conveyance with water quality goals



Who is most vulnerable to and where do they live?

Vulnerability scoring based on 14 variables within six categories: race, income, language, ability, health, and social status

Asthma hosp. rates COPD hosp. rates Households with no vehicle Limited Engl. proficiency Median household income No high school degree People of color Population 5 and under Population below 185% poverty threshold Population density Population over 65 Population with any disability Renter housing units Unemployment rates

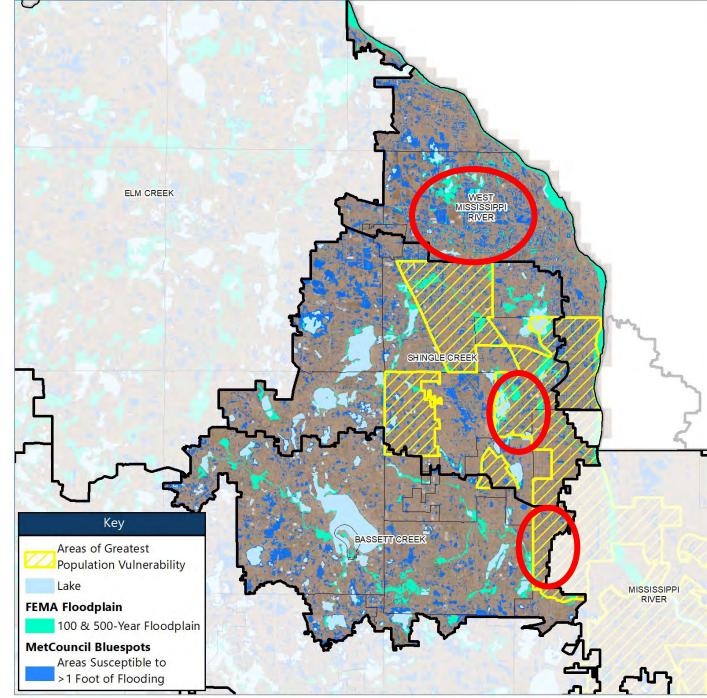


Where are vulnerable people likely to experience flooding?

Surface water impacts are determined by how much and how quickly precipitation falls and by water's ability to be drained into either soils or the stormwater network

Implications

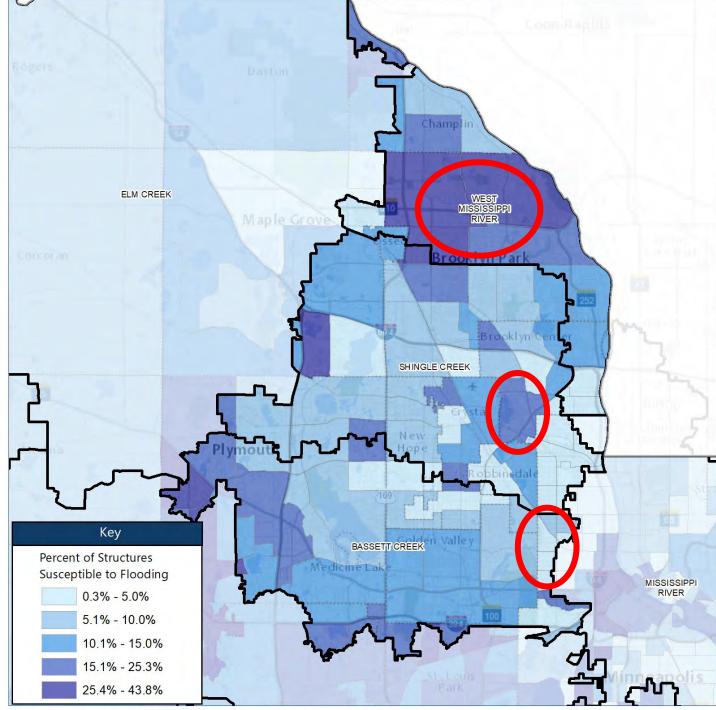
 Analysis needed that considers the engineered stormwater network that drains surface water and better account for soil infiltration



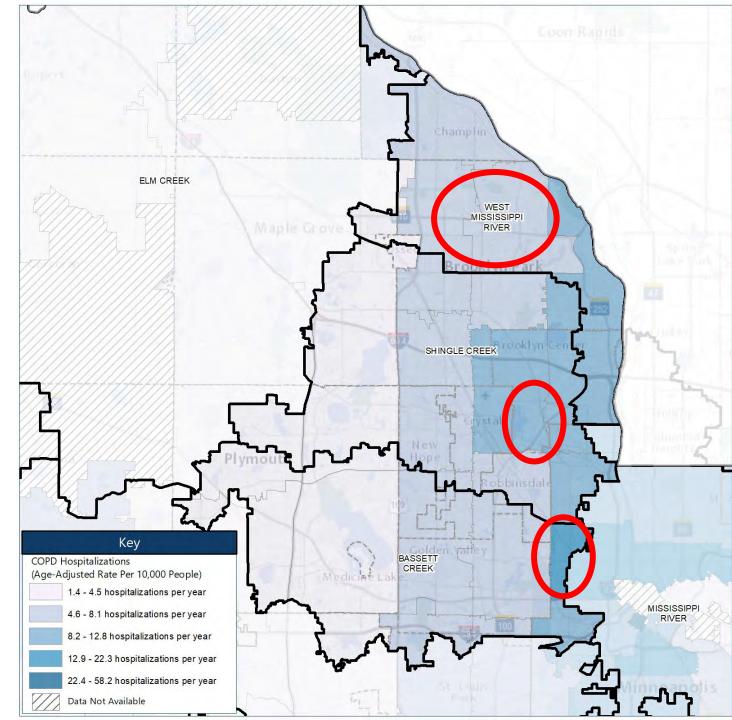
Where are structures that <u>might be</u> susceptible to flooding?

Implications & uses:

- Compare to vulnerable populations to identify places where structure flooding will be an inconvenience vs. a catastrophic event
- Can help inform strategies and interventions

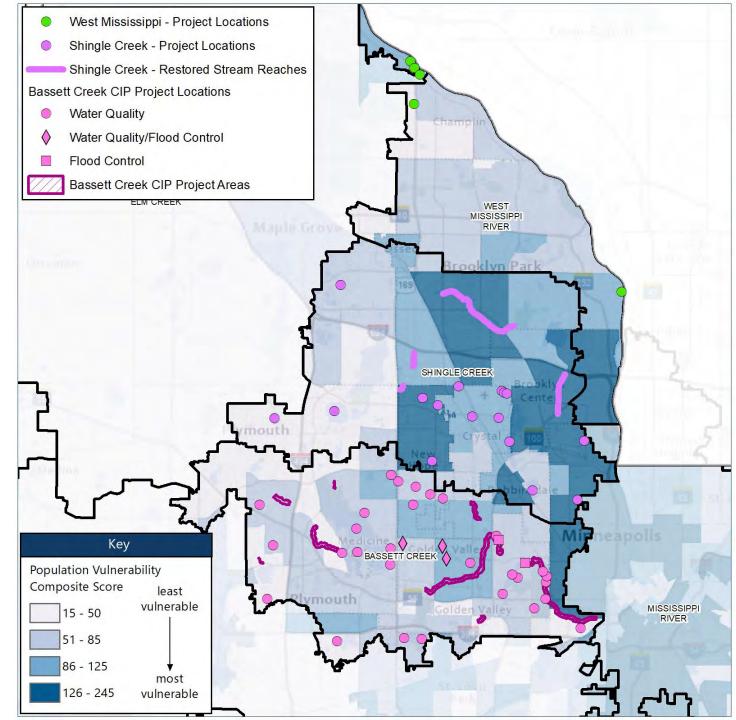


- COPD hospitalization rates
- COPD, the chronic inflammatory lung disease, is an indicator of poor air quality
- Air quality is most negatively impacted by transportation and business activities, but could watershed investments contribute to improving this metric?



Capital Projects

- Past investments reflect priorities and opportunities
- Can provide insight into how equity could factor into future investments or where work is needed to create opportunities



Thank you!

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