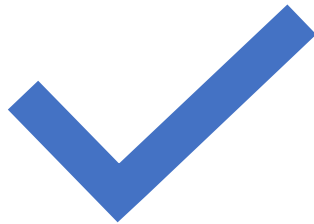


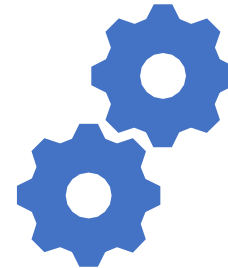
Calumet Urban Flooding Baseline

Update and Data Layer Discussion

Project Plan



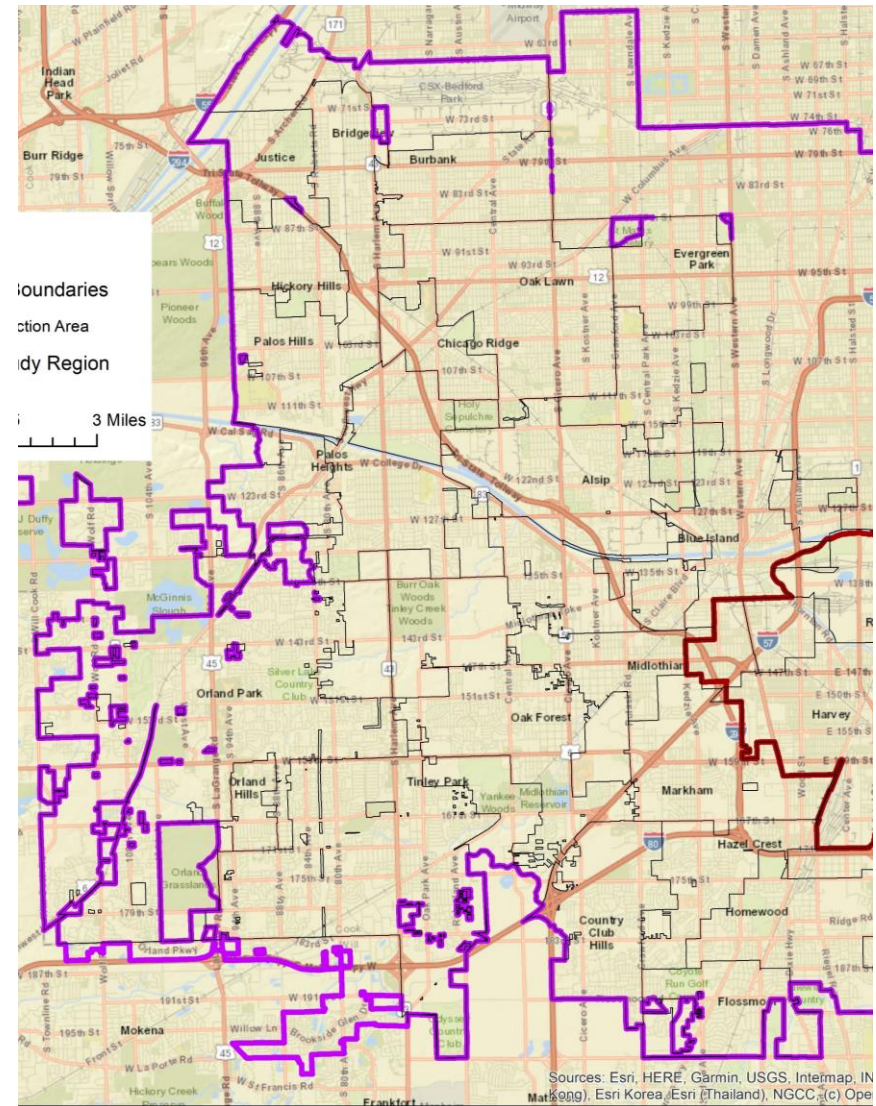
Phase 1: Data Gaps Analysis
(complete)



Phase 2: Develop Visualization Tool
and Collect Primary Data (ongoing)

Phase 1

- Defined
 - Geographic Scope
 - Urban flooding



Phase 1

- Defined
 - Geographic Scope
 - Urban flooding

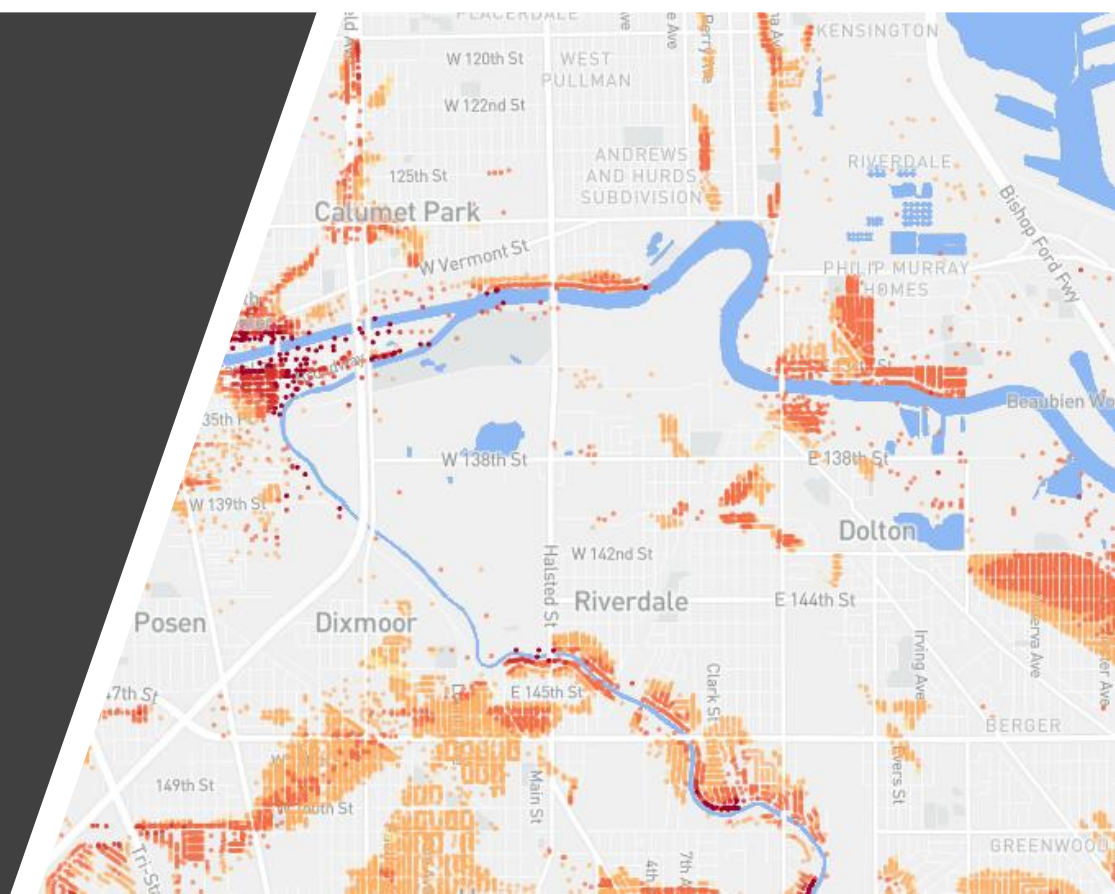
For the purposes of this project, CNT defines urban flooding as occurring

when rain overwhelms drainage systems and waterways in a built and more densely populated environment, and makes its way into the basements, yards, and streets of homes, businesses, and other structures, disrupting lives and economic activity.



Phase 1

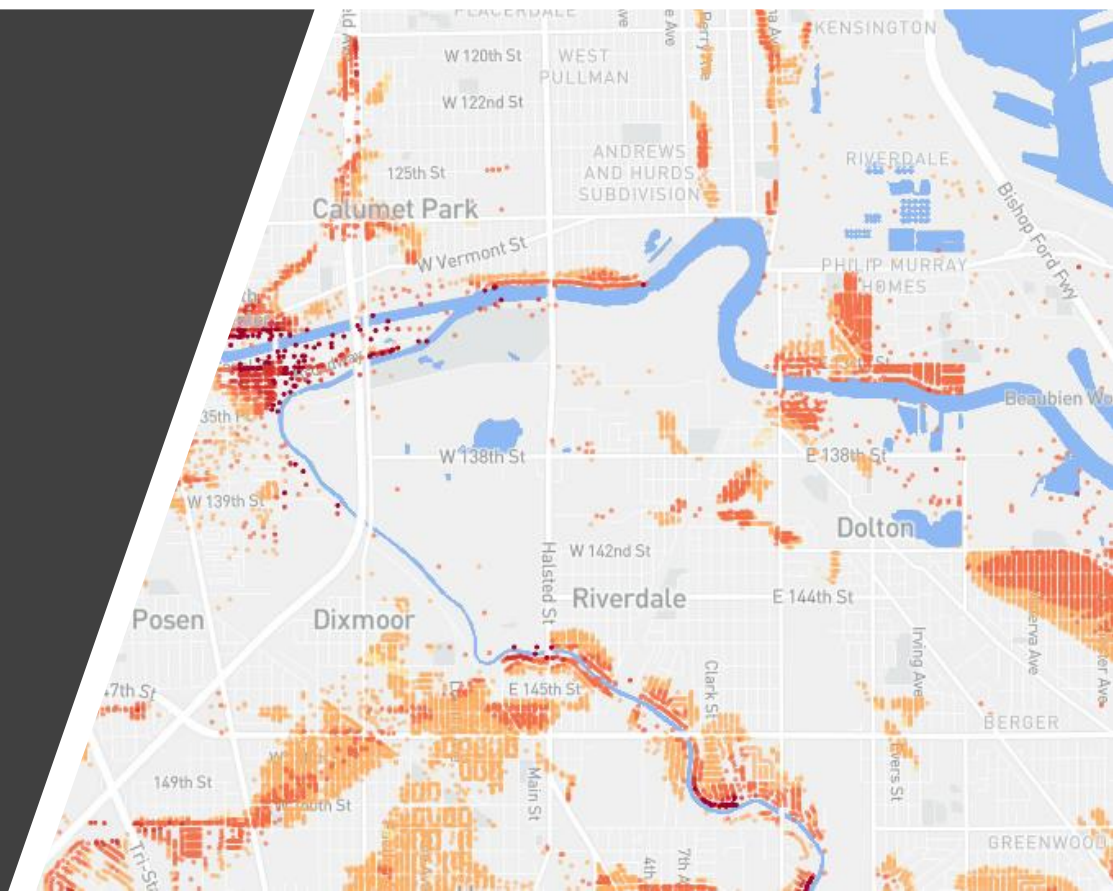
- Completed data assessment
 - What do we know?
 - What don't we know?





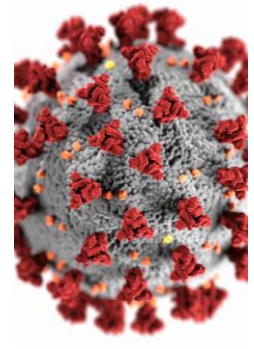
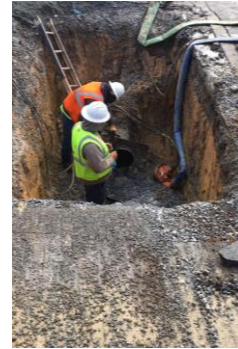
Phase 1

- Completed data assessment
 - Lots of data on contributing factors
 - Very little documenting the problem



Phase 1

- Engaged Stakeholders
 - CSC
 - Technical Advisory Group
 - Municipalities



This Photo by Unknown Author is licensed under [CC BY-SA-NC](https://creativecommons.org/licenses/by-sa/4.0/)



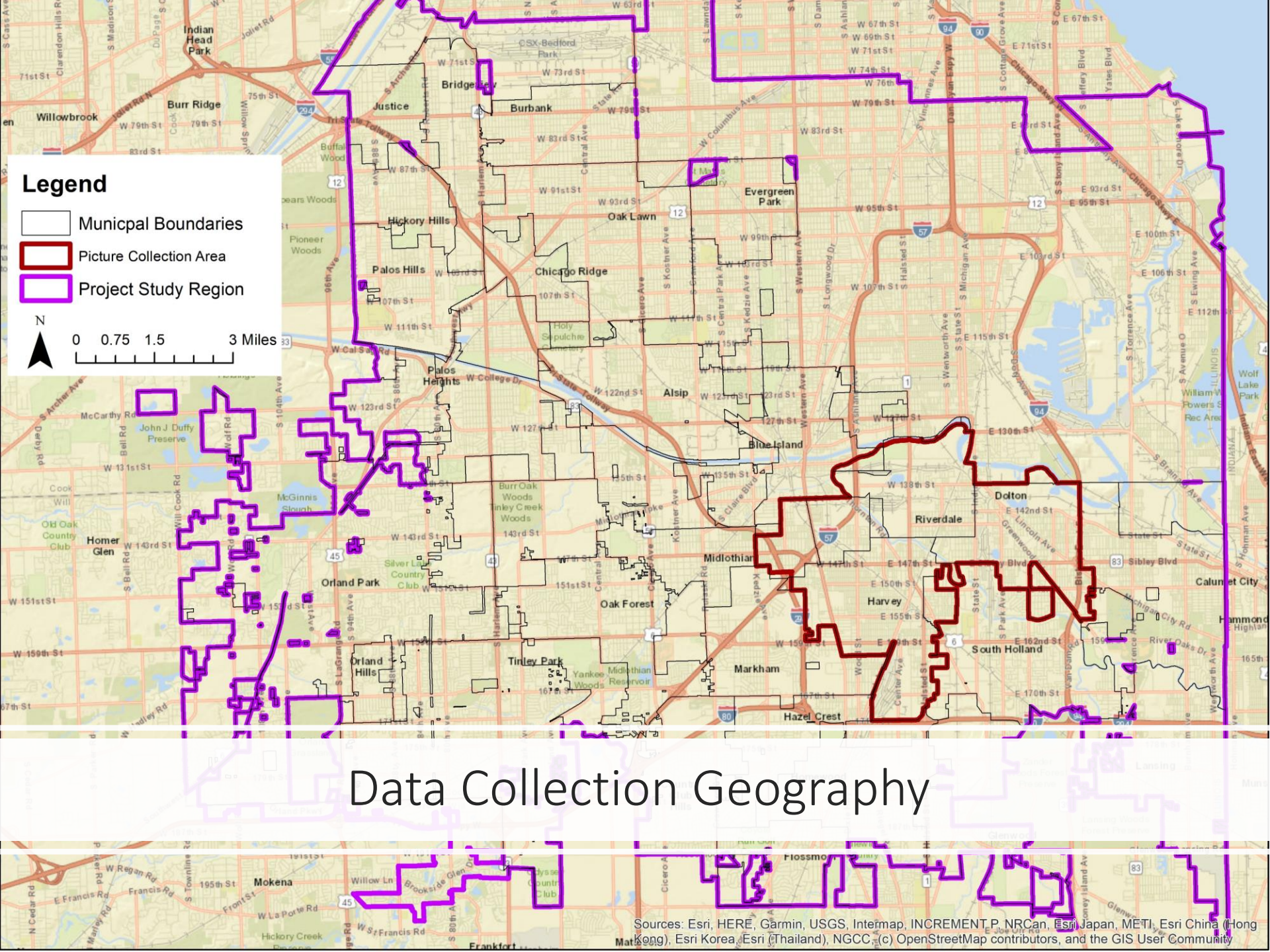
Phase 1 Takeaways

- Primary data collection needs to focus on documenting the problem
 - Secondary data collection, analysis, and visualization process needs to focus on harm reduction
 - Municipal stakeholders focused on urgent Covid-19 response
 - MWRD master planning efforts will be ongoing in the Calumet and primary data collection can support
-

Phase 2

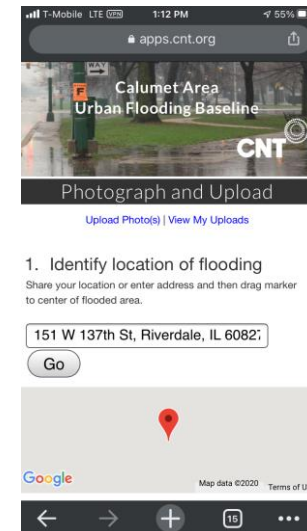
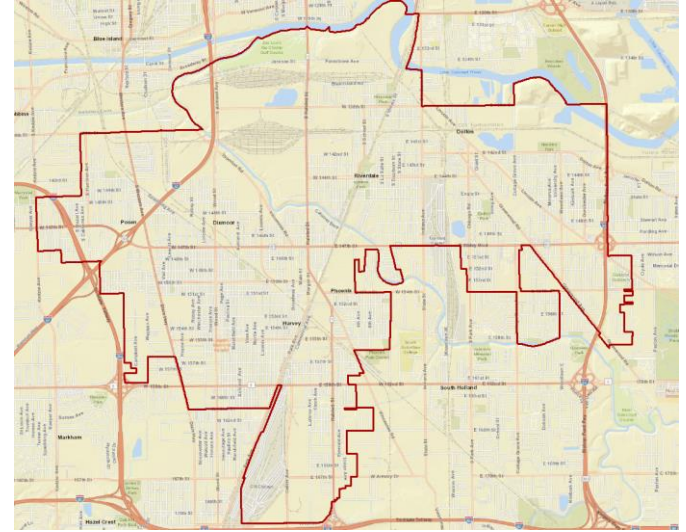
- Purpose
 - Reduce urban flooding in the Calumet region
- Outcomes
 - Document urban flooding in the region
 - Create a tool to visualize and/or distribute data that supports problem solving by municipalities and residents
- Process
 - Engage local advisors – residents and municipal pw
 - Acquire, process, analyze data
 - Build a data visualization tool
 - Collect photo documentation data
 - Integrate photo documentation into data visualization tool





Data Collection Goals

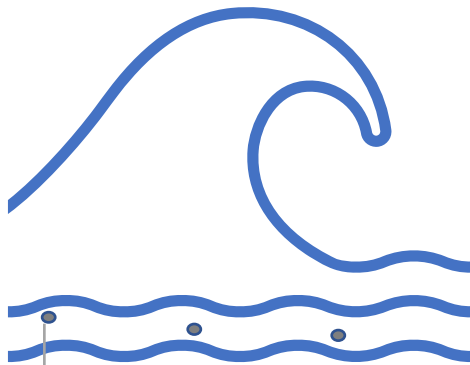
- Engage, train, and compensate residents
- Collect photos of urban flooding useful for solutions design
- Evenly cover entire “south suburban communities” MWRD master planning area with photos
- Use mobile optimized web page for photo upload
- Create and refine process and infrastructure for future data collection (ideally to cover entire calumet region)



Data Collection Plan

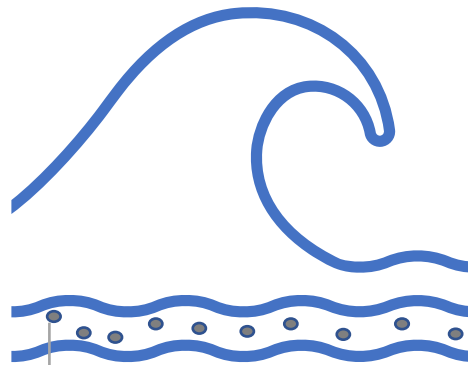


Pilot (March 2021)



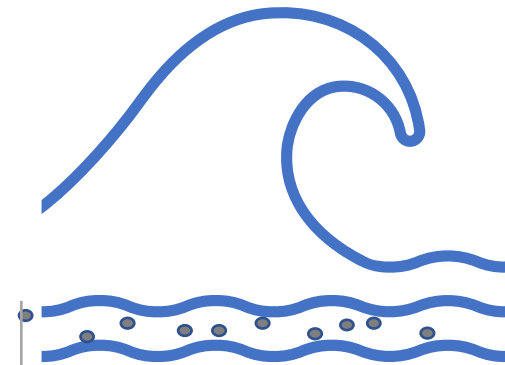
3 Storm events (x hours based off storm)

Phase 1 (April 2021-July 2021)



10 Storm events (x hour based off storms)

Phase 2 (Sept 2021-May 2022)

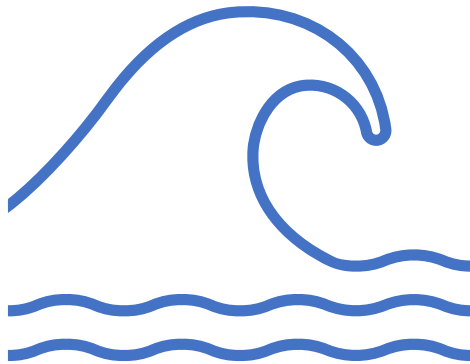


10 Storm events or major melts (x hour based off storms or snow melts)

Data Collection Plan



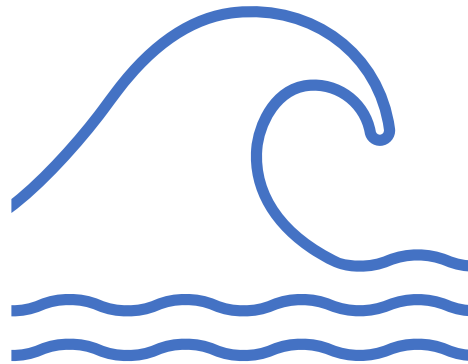
Pilot (March 2021)



SSMMA
Associate

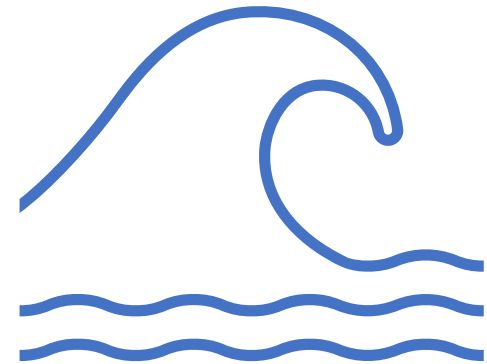
12-15
Data
Collection
Leaders

Phase 1 (April 2021-July 2021)



60-100
Data
Collectors

Phase 2 (Sept 2021-May 2022)



Data Visualization Tool

- Users
 - Local Governments
 - Municipalities
 - engineers
 - public works directors
 - water/sewer superintendents
 - MWRD
 - master planners
 - engineers, model developers
 - Residents
 - trustees
 - advocates



This Photo by Unknown Author is licensed under [CC BY-SA](#)



Data Visualization Tool

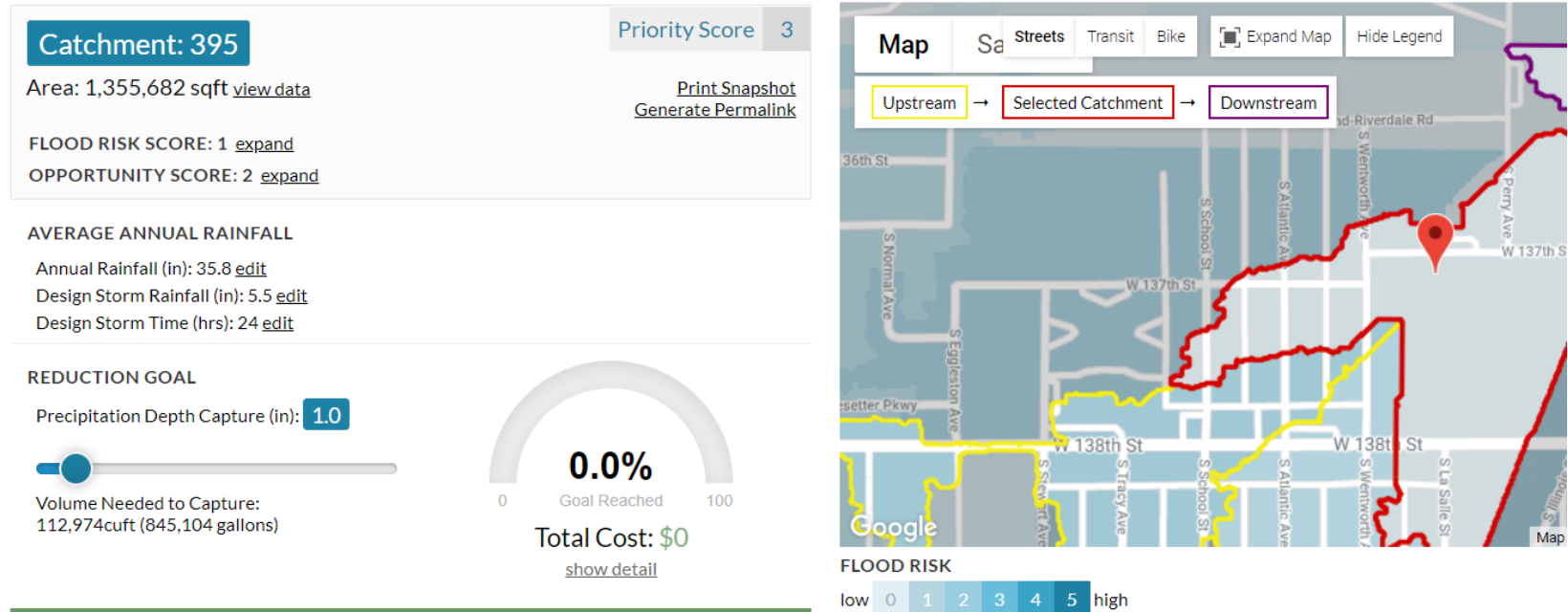


- Uses

- Problem/impact identification
- Surface possible causes
- Bolster fundraising (case making)
- Inform local planning efforts



CNT/RainReady Resilience Planning Tool



Breakout Discussion

1. Are the data points in the right categories?
2. Are we missing any data sets?
3. With the use case shifting more towards advocacy organizations and residents, are there any datasets that stand out as complex or less important?