

Charleston County Vulnerability Assessment

RSAC UPDATE

02.27.2024



Agenda

1. Vulnerability Assessment Update
2. Community Engagement Update

Vulnerability Assessment Update

Spatial Vulnerability Assessment Types

Property-based Assessments

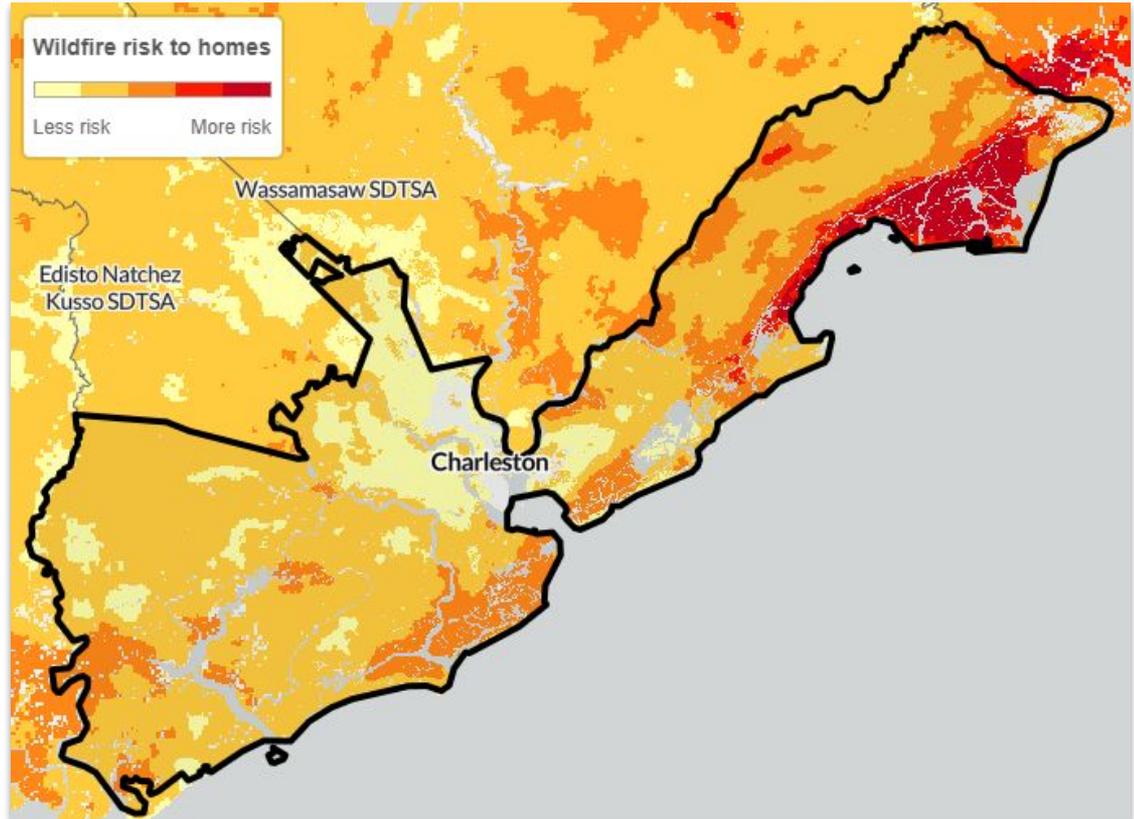
- Vulnerability of and risk to built-environment and services
- For **flooding** and wildfire assessments
- Also, roads and connectivity analysis

Extreme Heat Assessment

- Urban heat island and public health concepts
- Neighborhood-scale vulnerability

WILDFIRE ASSESSMENT: APPROACH

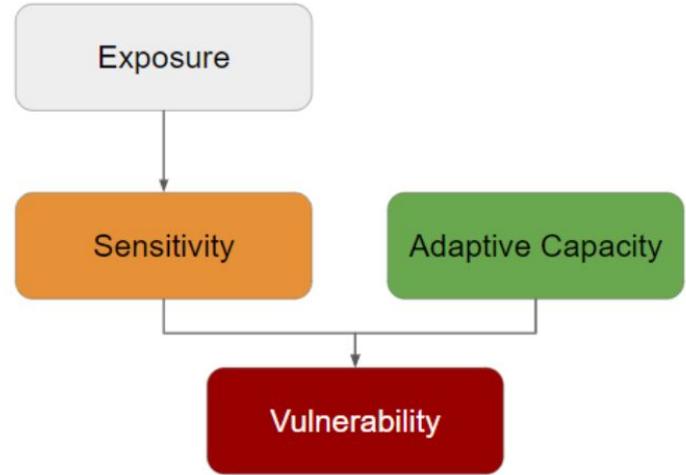
- Using USFS Wildfire Risk product indicating direct impact in the wildland urban interface (WUI)
- Impact on Emergency Services through **altered drive times** from nearest fire station
- Impact on Properties



EXTREME HEAT ASSESSMENT APPROACH

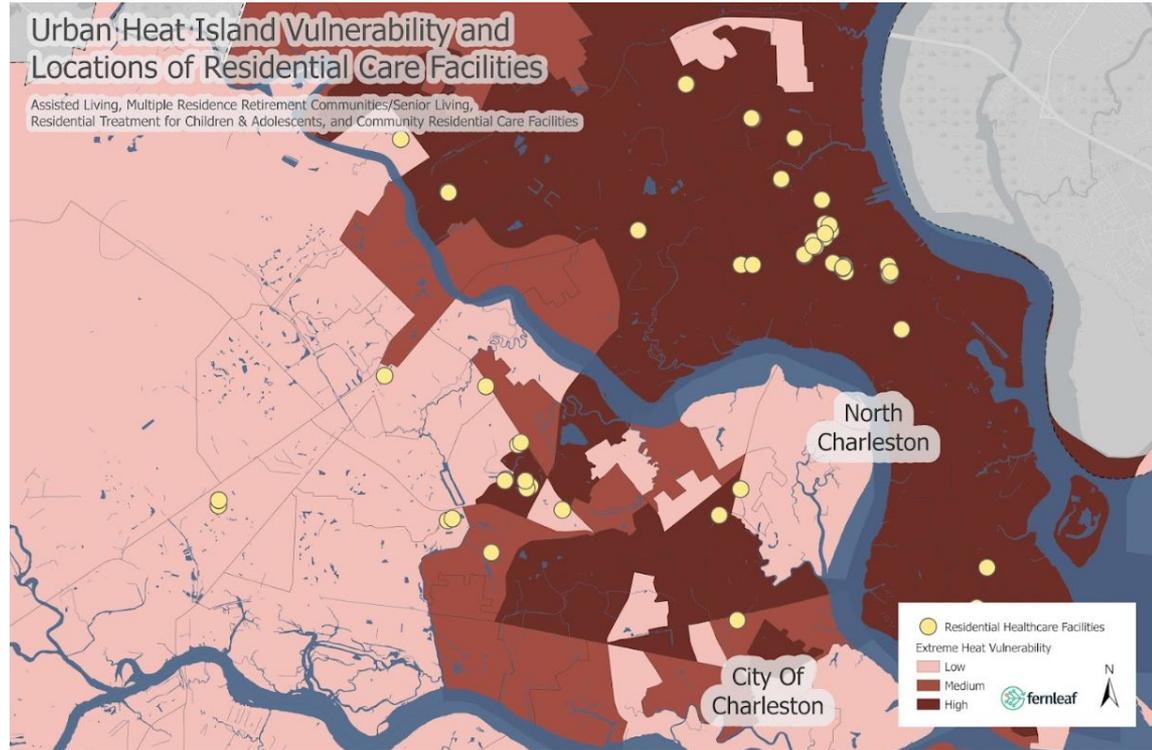
Neighborhood-scale

Combining Urban Heat Island effect and Public Health considerations



Heat-Sensitive and At-Risk Populations within UHI

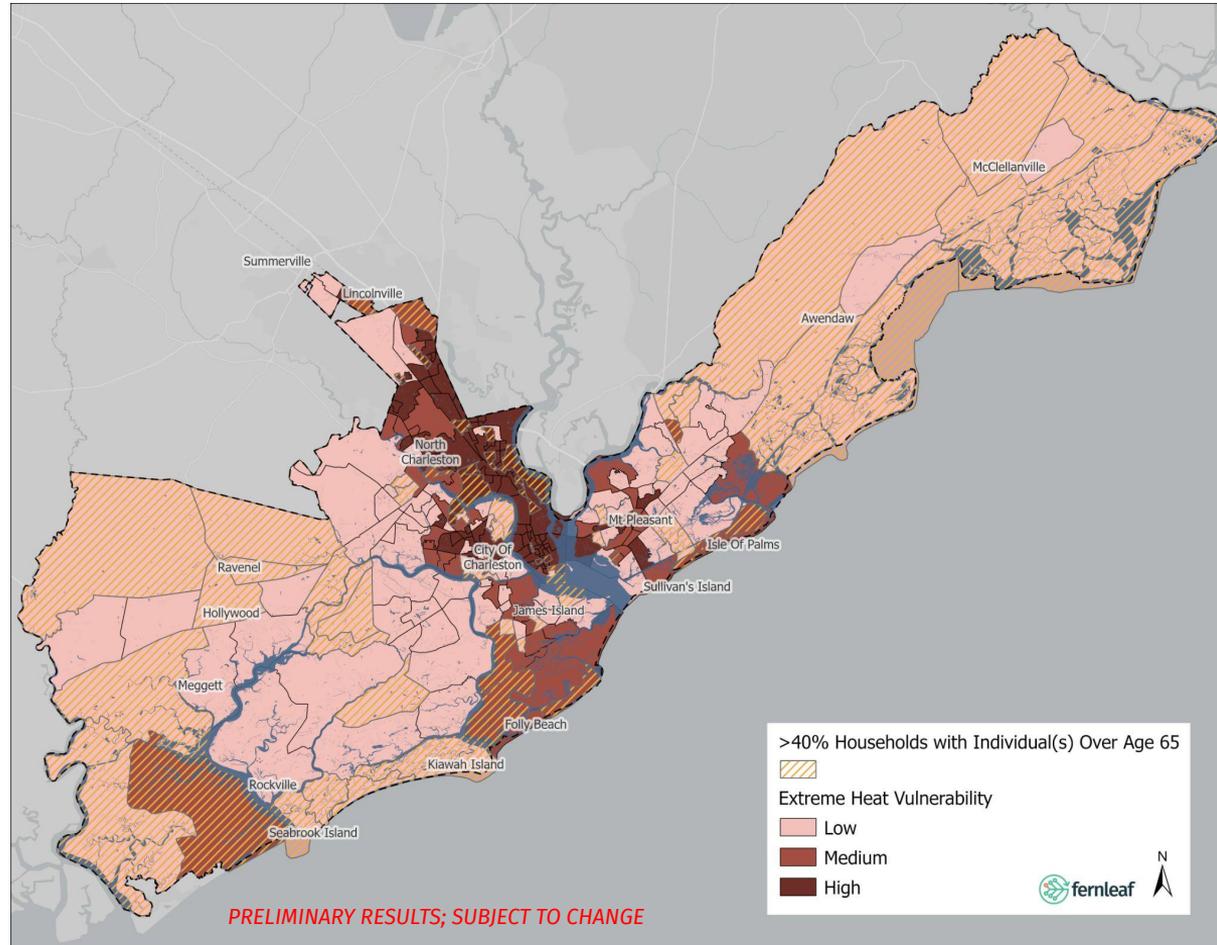
- Physiological factors
- Pre-existing or chronic conditions
- Occupational exposure
- Living conditions



PRELIMINARY RESULTS; SUBJECT TO CHANGE

Heat-Sensitive and At-Risk Populations in rural areas

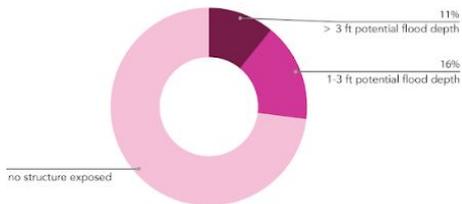
- Physiological factors
- Pre-existing or chronic conditions
- Occupational exposure
- Living conditions



Digging deeper into flooding assessment results

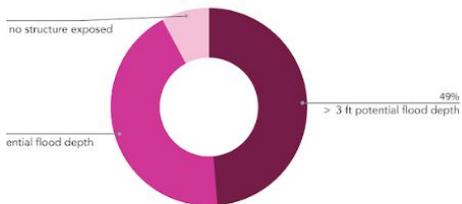
Risk Consequence for LOW Adaptive Capacity Properties

Current 100-yr Flooding Woodwell



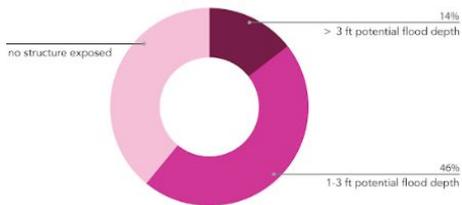
Risk Consequence for MEDIUM Adaptive Capacity Properties

Current 100-yr Flooding Woodwell

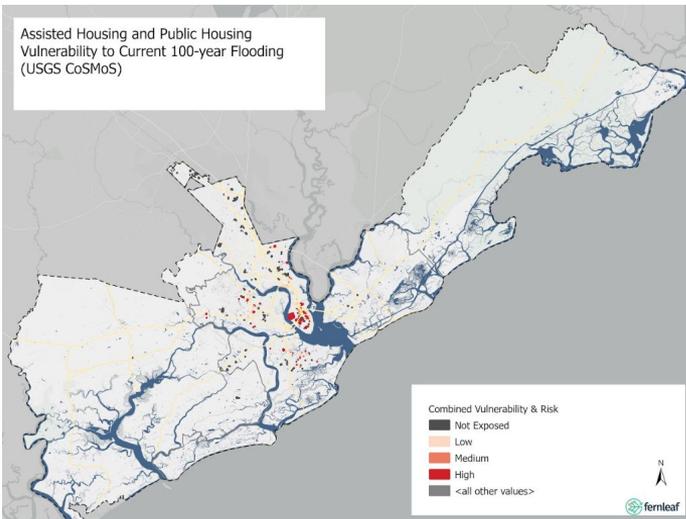


Risk Consequence for HIGH Adaptive Capacity Properties

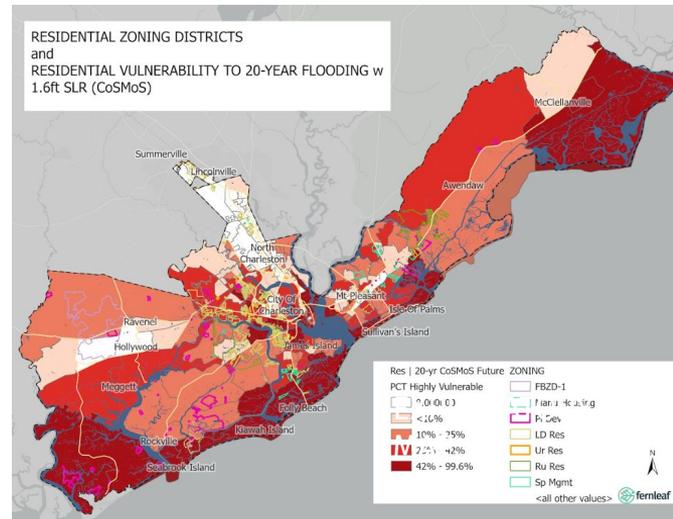
Current 100-yr Flooding Woodwell



Assisted Housing and Public Housing Vulnerability to Current 100-year Flooding (USGS CoSMoS)



RESIDENTIAL ZONING DISTRICTS and RESIDENTIAL VULNERABILITY TO 20-YEAR FLOODING w 1.6ft SLR (CoSMoS)

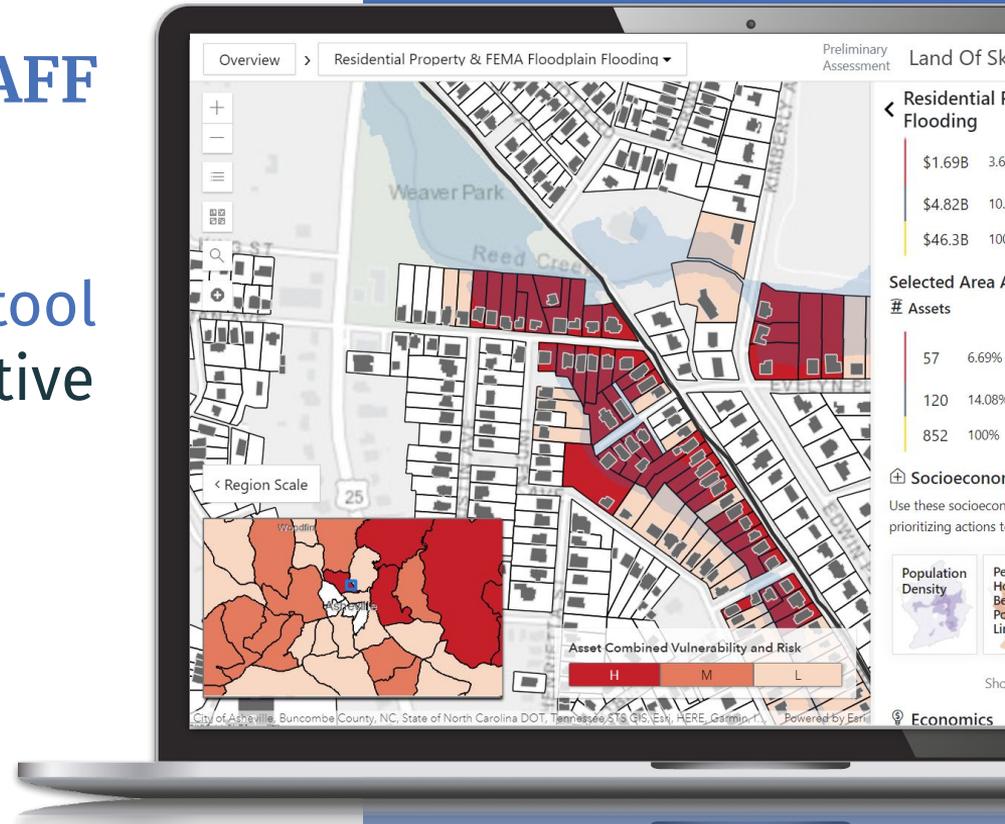


PRELIMINARY RESULTS; SUBJECT TO CHANGE



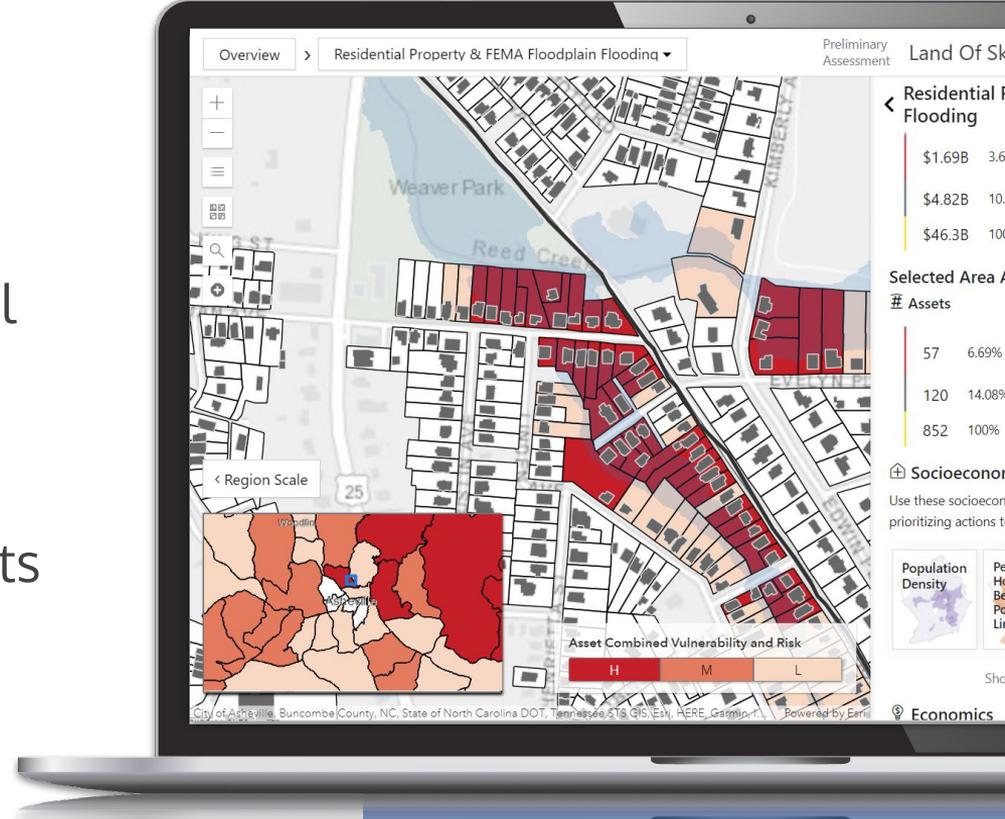
ACCESS SHARED WITH STAFF

Web-based decision support tool for Staff that provides interactive climate vulnerability and risk insights designed for action.



EXAMPLE APPLICATIONS SHARED WITH STAFF

- Site-selection
- Platform for interdepartmental coordination
- Project Implementation Grant Writing
- Communicating project benefits beyond BCA



Next Steps for County Staff Workgroup

- Synthesize key vulnerabilities in early March
- Begin identifying preliminary strategies



Community Engagement Update

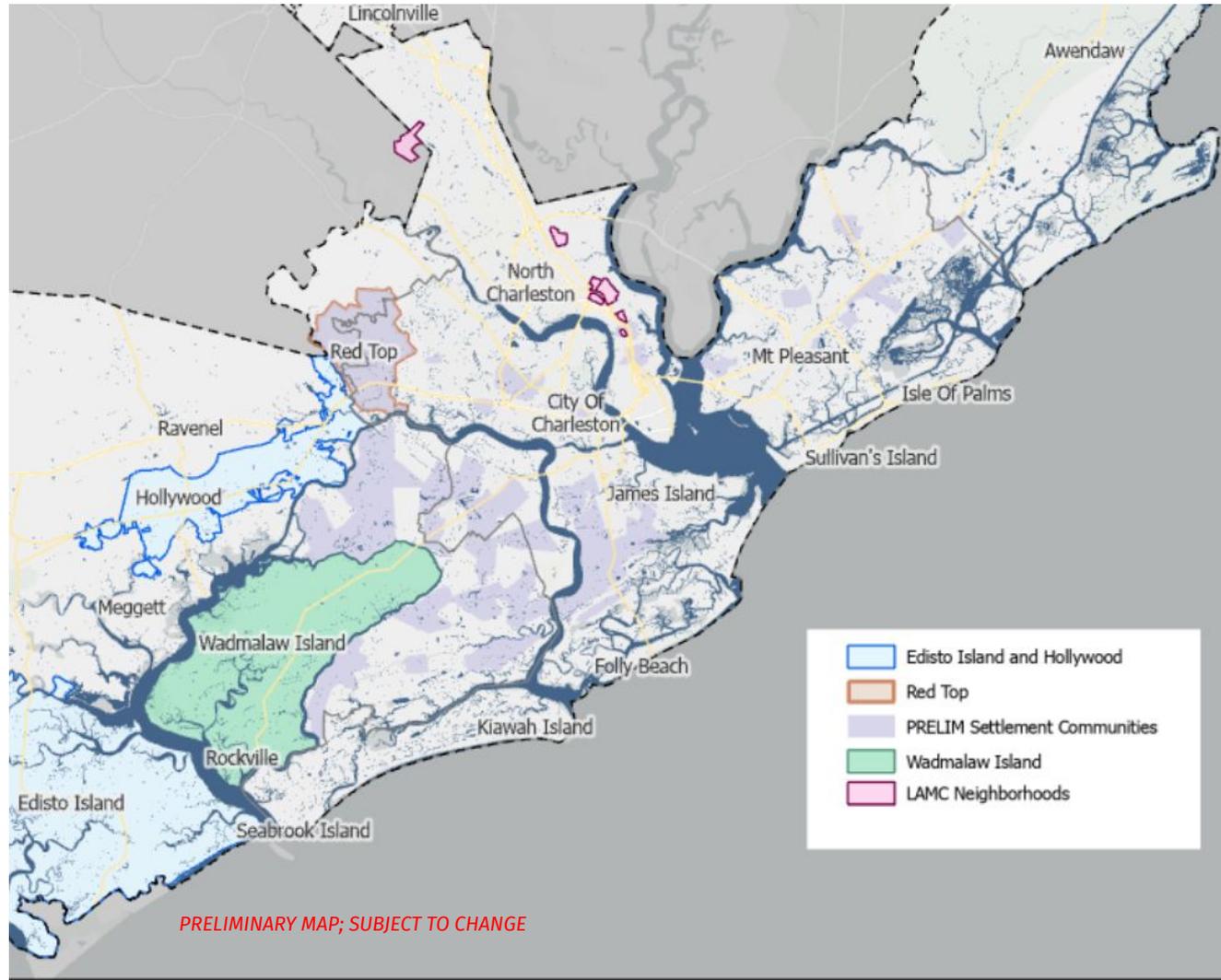
Focus Group Participants

Community Leaders

- Red Top
- Edisto Island
- Wadmalaw Island

CBO Staff

- Lowcountry Alliance for Model Communities (LAMC)
- Center for Heirs' Property Preservation



First Focus Group in January

What does 'COMMUNITY' mean to you?

What do you think of when you hear 'RESILIENCE'?

What 'ASSETS' are important to your community?

Summary of Assets:

TANGIBLE	INTANGIBLE
<ul style="list-style-type: none">• Schools:<ul style="list-style-type: none">◦ Park Rose and Wall School• Parks:<ul style="list-style-type: none">◦ Recreational spaces (playgrounds, fields)◦ Small park (Cherokee neighborhood) has community raised beds• Churches:<ul style="list-style-type: none">◦ Lovely Hill Baptist Church◦ 8 churches in Red Top• Community centers, esp. old significant ones• Marshes• Air monitors (Rosemont)• LAMC-owned affordable housing• Public transportation (though no shade at stops)• Corner stores• Fresh Future Farms• Low country street grocery: mobile farmers market	<ul style="list-style-type: none">• Strong sense of community<ul style="list-style-type: none">◦ Esp. church community◦ Neighbor-to-neighbor• Generational/local knowledge• Strong local culture• Shared motivations• Determination (esp. to be heard)• Creativity/innovation• Associations:<ul style="list-style-type: none">◦ Red Top Association• Parades, oyster roasts• Entrepreneurial community• Personal networks, incl. those outside own neighborhood• Citizen science efforts: CCRAB• Tank Farm mitigation agreement

Second Focus Group this Week

- Evaluate and add to VA findings around key community assets and stressors
- Flooding information and concepts
- Identify information gaps