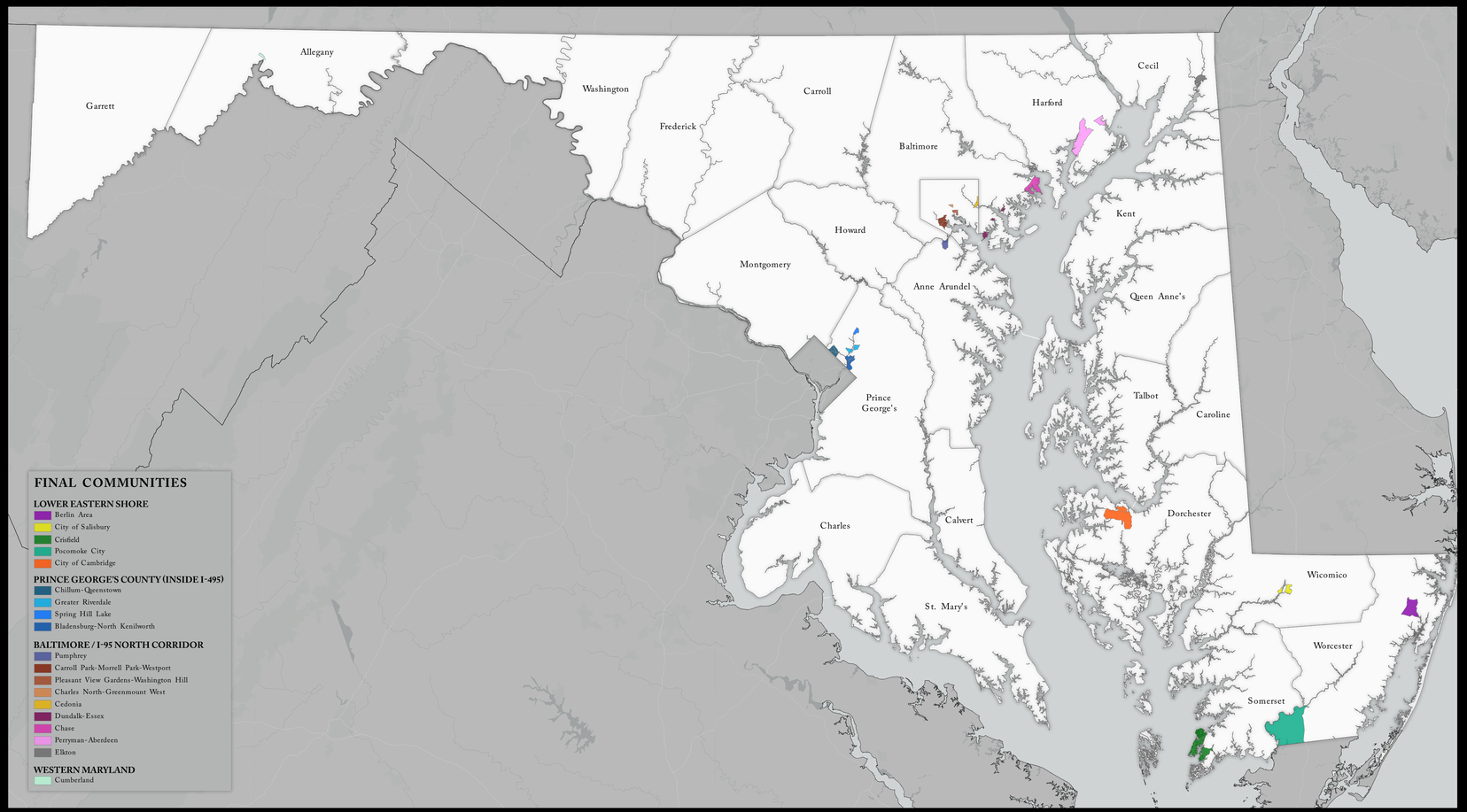
# MyCoast Pilot Communities




## METHODOLOGY

Maryland's MyCoast Program is a strategic effort to anticipate and assess the impacts of flooding events across the state. To enhance this project's reach in relevant locales, we set out to discern which communities in the state are most at risk for negative flooding effects.

This process involved an examination of both demographic and environmental vulnerability indicators at the census tract level. Using this methodology, we created a shortlist of those communities expected to be "most vulnerable" to the impacts of flooding events and thus prime candidates for the MyCoast program in Maryland.

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Demographic Indicators: We created a composite score to determine the most demographically vulnerable census tracts. This composite score was based on two datasets:
(1) Centers for Disease and Control: Social Vulnerability Index
(2) Maryland Department of Planning: Very High-Risk Census Tracts
The CDC Social Vulnerability Index uses four different measures of risk based on socioeconomics, household composition, minority status/language, and housing type. Tracts from this dataset were selected if they scored above 0.7/1.0 in overal vulnerability. The MD Planning Very High-Risk Census Tracts dataset was based on a variety of socioeconomic factors ranging from property ownership, language barriers, accessibility to resources, and family composition.

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Environmental Indicators: In order to determine which communities are at a high flood risk, we examined residential and commercial parcels, as well as the Maryland State Highway Administration (SHA) and Baltimore City maintained roads. The residential and commercial parcels gave an indication of where clusters of businesses and residential areas are located. The roads were used to determine the accessibility of emergency response and community movement during flood events. Each of these two sets of data were compared against three environmental flood risk factors:

(1) FEMA floodplains (100 and 500 year)
(2) Hurricane storm surge area
(3) Nuisance tidal inundation area (2050)
Census tracts with the highest percentage of both residential and commercial parcels or State/Baltimore City-maintained highways within the three factors' areas ranked the highest for flood risk.

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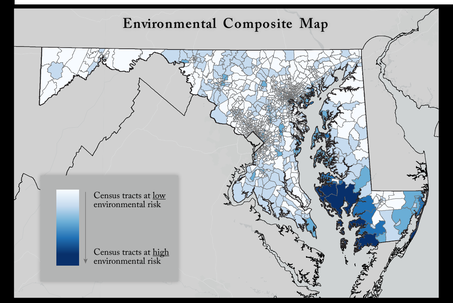
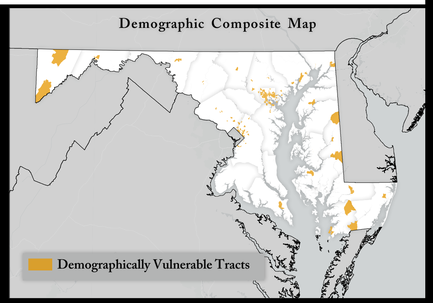
Results: Together, these demographic and environmental variables indicated nineteen communities across the state at the highest risk for the negative effects of flooding events. This map breaks those communities down into four general regions: Baltimore and the I-95 North Corridor, Prince George's County (inside I-495), Lower Eastern Shore, and Western Maryland.

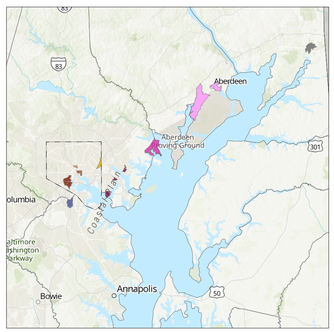
**Environmental Composite Map**




**Demographic Composite Map**




## Baltimore & I-95 North Corridor




This region contains at-risk communities in and around the City of Baltimore, as well as along the I-95 corridor to the northeast. The census tracts in Baltimore City are characterized primarily by socioeconomic vulnerabilities, though all have infrastructure in the floodplain. Meanwhile, tracts along the I-95 corridor experience more severe environmental risks.

### BALTIMORE CITY

Carroll Park - Morrell Park - Westport
SVI Score: 0.87-0.91
Environmental Triggers
- Percent Roads in Floodplain: 15.95% - 16.86%
- Percent Roads in Storm Surge: 16.43%

Cedonia
SVI Score: 0.71
Environmental Triggers:
- Percent Parcel Acres in Floodplain: 20.94%

Charles North - Greenmount
SVI Score: 0.73
Environmental Triggers:
- Percent Roads in Floodplain: 24.14%
- Percent Parcel Acres in Floodplain: 22.59%

Pleasant View Gardens - Washington Hill
SVI Score: 0.93-0.99
Environmental Triggers:
- Percent Roads in Storm Surge: 18.28% + 22.64%
- Percent Roads in Storm Floodplain: 33.42%

### ANNE ARUNDEL COUNTY

Pumphrey
SVI Score: 0.86
Environmental Triggers:
- Percent Roads in Floodplain: 28.13%
- Percent Roads in Storm Surge: 25.61%

### CECIL COUNTY

Elkton
SVI Score: 0.98
Environmental Triggers:
- Percent Tract Acres in Storm Surge: 38.34%

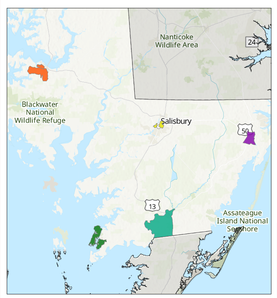
### SOUTHEAST BALTIMORE COUNTY & HARFORD COUNTY

Chase
SVI Score: 0.84
Environmental Triggers:
- Percent Roads in Storm Surge: 44.17%
- Percent Parcel Acres in Floodplain: 35.16%
- Percent Tract Acres in Storm Surge: 76.78%
- Percent Parcel Acres in 2050 Tidal Inundation: 77.52%

Dundalk-Essex
SVI Score: 0.84-0.88
Environmental Triggers:
- Percent Roads in Storm Surge: 69.23% - 99.99%
- Percent Parcel Acres in Floodplain: 62.55%
- Percent Tract Acres in Storm Surge: 65. 14% - 99.47%
- Percent Parcel Acres in 2050 Tidal Inundation: 75.19 % - 90.31%

Perryman - Aberdeen
SVI Score: 0.94-0.99
Environmental Triggers:
- Percent Parcel Acres in 2050 Tidal Inundation: 51.12% - 58.69

## Lower Eastern Shore




The communities marked in Maryland's Lower Eastern Shore are some of the most environmentally vulnerable. For example, Crisfield experiences all categories of environmental factors), but also carry significant demographic risk factors (Cambridge, Salisbury). Marked census tracts in this region range from communities on the Chesapeake Bay to inland towns and cities, as well as tracts closer to the Atlantic coast.

### SOMERSET COUNTY

Crisfield
SVI Score: 0.96
Environmental Triggers:
- Percent Roads in Floodplain: 100%
- Percent Roads in Storm Surge: 100%
- Percent Parcel Acres in Floodplain: 98.97
- Percent Tract Acres in Storm Surge: 88.17%
- Percent Parcel Acres in 2050 Tidal Inundation: 99.98%

### WICOMICO COUNTY

City of Salisbury
SVI Score: 0.98
Environmental Triggers:
- Percent Roads in Floodplain: 23.82%

### WORCESTER COUNTY

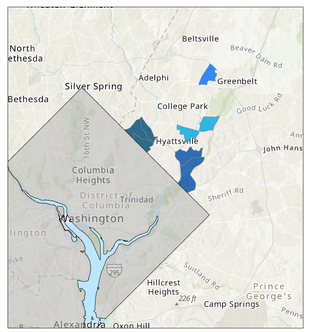
Pocomoke City
SVI Score: 0.97
Environmental Triggers:
- Percent Roads in Storm Surge: 20.83%
- Percent Parcel Acres in Floodplain: 30.61%
- Percent Tract Acres in Storm Surge: 55.46%
- Percent Parcel Acres in 2050 Tidal Inundation: 48.01%

Berlin Area
SVI Score: 0.89
Environmental Triggers:
- Percent Tract Acres in Storm Surge: 29.3%

### DORCHESTER COUNTY

City of Cambridge
SVI Score: 0.96
Environmental Triggers:
- Percent Roads in Storm Surge: 58.2%
- Percent Tract Acres in Storm Surge: 80.8%

## Prince George's County




Several communities in the Washington, DC suburbs of Prince George's County carry a mix of environmental and demographic risk factors, though they vary considerably in their vulnerabilities. While census tracts in Chillum-Queenstown and Spring Hill Lake are at-risk principally for their high SVI scores, communities in Bladensburg-North Kenilworth suffer from a variety of environmental factors. Meanwhile, the two census tracts in Greater Riverdale experience less severe risk factors in all categories, though they still meet the thresholds for demographic vulnerability and one environmental trigger.

Greater Riverdale
SVI Score: 0.83
Environmental Triggers:
- Percent Roads in Floodplain: 20.0%

Bladensburg - North Kenilworth
SVI Score: 0.74-1.0
Environmental Triggers:
- Percent Roads in Storm Surge: 23.6%
- Percent Roads in Floodplain: 25.2% - 26.7%
- Percent Parcel Acres in Floodplain: 19.9%

Spring Hill Lake
SVI Score: 0.92
Environmental Triggers:
- Percent Roads in Floodplain: 26.1%

Chillum - Queenstown
SVI Score: 0.81-.093
Environmental Triggers:
- Percent Roads in Floodplain: 15.3% - 15.5%
- Percent Parcel Acres in Floodplain: 53%

## Western Maryland


The only community marked by this study in Western Maryland is the city of Cumberland. While there are significant demographic challenges present in the tract, this community falls into the highest risk category because of its environmental risk factors, specifically its percentage of roads and properties in the floodplain.

### ALLEGANY COUNTY

Cumberland
SVI Score: 0.88
Environmental Triggers:
- Percent Roads in Floodplain: 23.4%
- Percent Parcel Acres in Floodplain: 45.77%