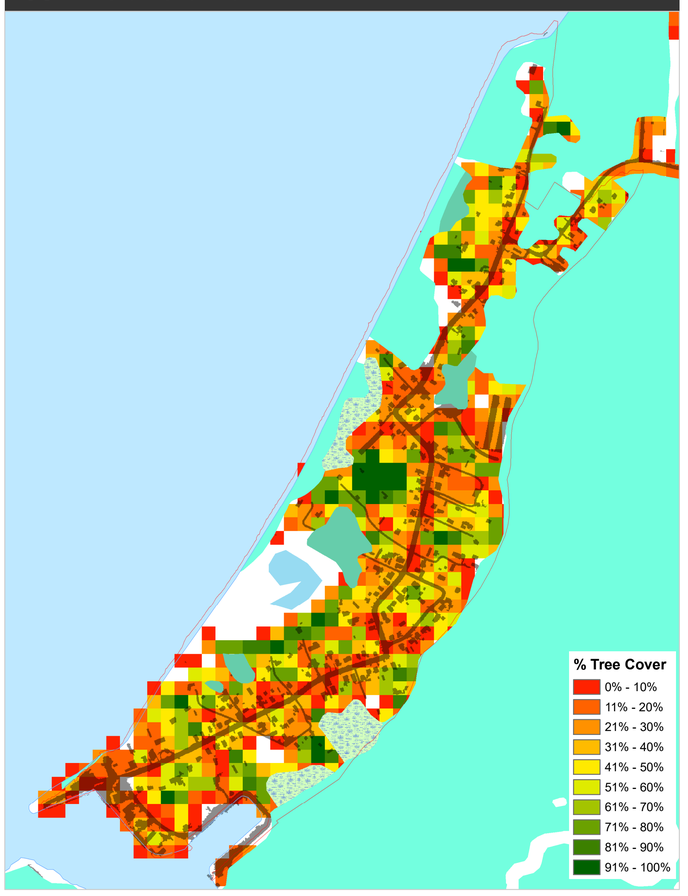
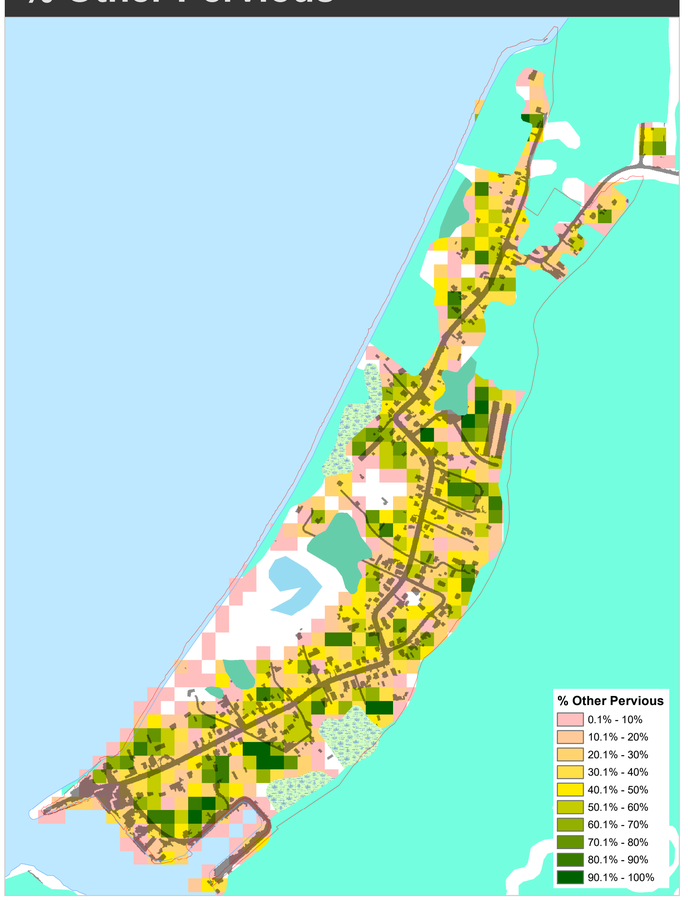
Opportunities for Mitigating Flooding

Saxis

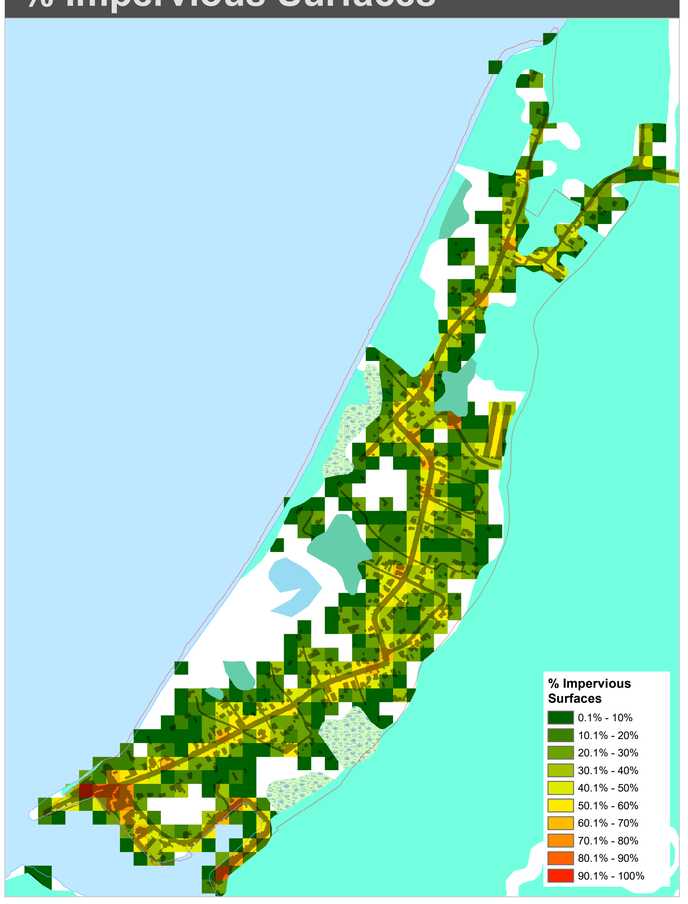
% Tree Cover



% Other Pervious



% Impervious Surfaces



Scenario:
Area of Influence: 100 feet
Sea Level Rise: 6 feet
Tree Canopy Goal: 30%

Scenarios Available:
Area of Influence: 100 feet, 1 acre, 4 acre
Sea Level Rise: 1 - 6 feet
Tree Canopy Goal: 30%, 45%, 60%

Source Information:
Landcover data from The Virginia Geographic Information Network (VGIN). 2016.

Sea Level Rise data from Department of Commerce (DOC), National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), Office for Coastal Management (OCM) 2016.

Analysis and Map prepared by The Green Infrastructure Center for the RAFT project. July 2018

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Sea Grant Virginia

Tree planting and revegetation strategies

Rainwater detention and storage strategies

Impervious / Pervious Surface Offset

75%
50%
25%
10%
0% -----
10%
25%
50%
75%

More Pervious Surfaces

More Impervious Surfaces

If value is above 0 then that cell has more pervious surfaces than impervious surfaces. Strategies here could be tree planting, constructed wetlands and bioswales....

If value is below 0 then that cell does not have enough land to offset impervious surfaces but could be offset with other retention stratigies (cisterns, rain barrels...) or detention strategies (green roof tops and vegetation planting...)

Potential inundation of coastal areas resulting from a projected 6 feet rise in sea level above current Mean Higher High Water (MHHW) conditions

Where Tree Canopy Goal is met for grid square

Impervious Surface

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested and Riverine/Shrub Wetland

Other Pervious (Potential Tree Planting Areas): Harvested/Disturbed Turf/Grass Pasture (Cropland Not Included)

$$\frac{\%\ \text{Impervious} - \%\ \text{Other Pervious}}{\%\ \text{Impervious} + \%\ \text{Other Pervious}} = \text{Offset}$$

N W E S

0 100 200 Yards

Other Pervious:

These areas could be potential places to plant trees.

They inlude the following selected landcover features:
Harvested/Disturbed
Turf/Grass
Pasture
(Cropland Not Included)

Impervious Surces:

This value was calculated by dividing the amount of impervious surfaces in a grid square by the total area of the grid square. (not including water and existing wetlands.