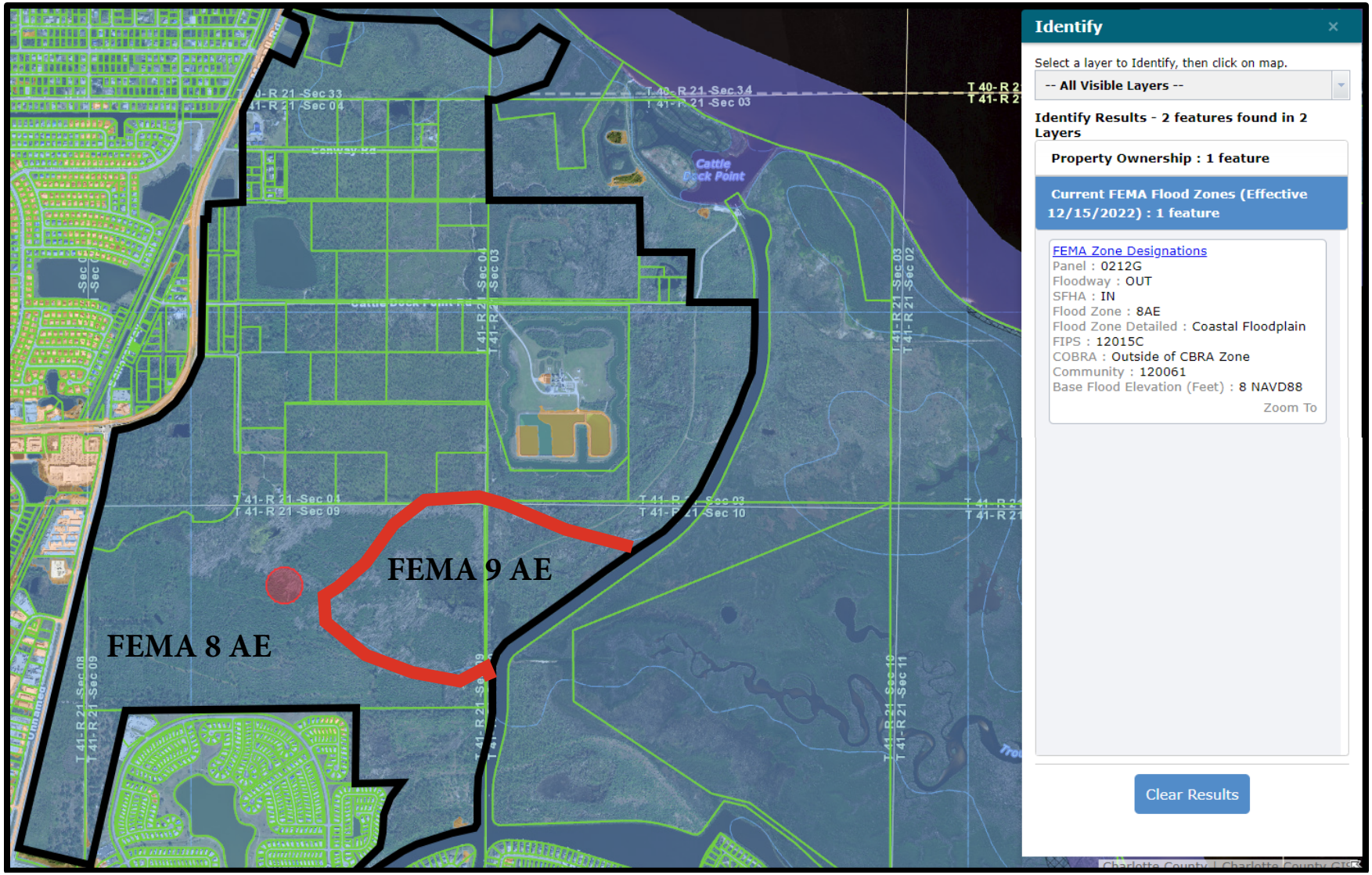
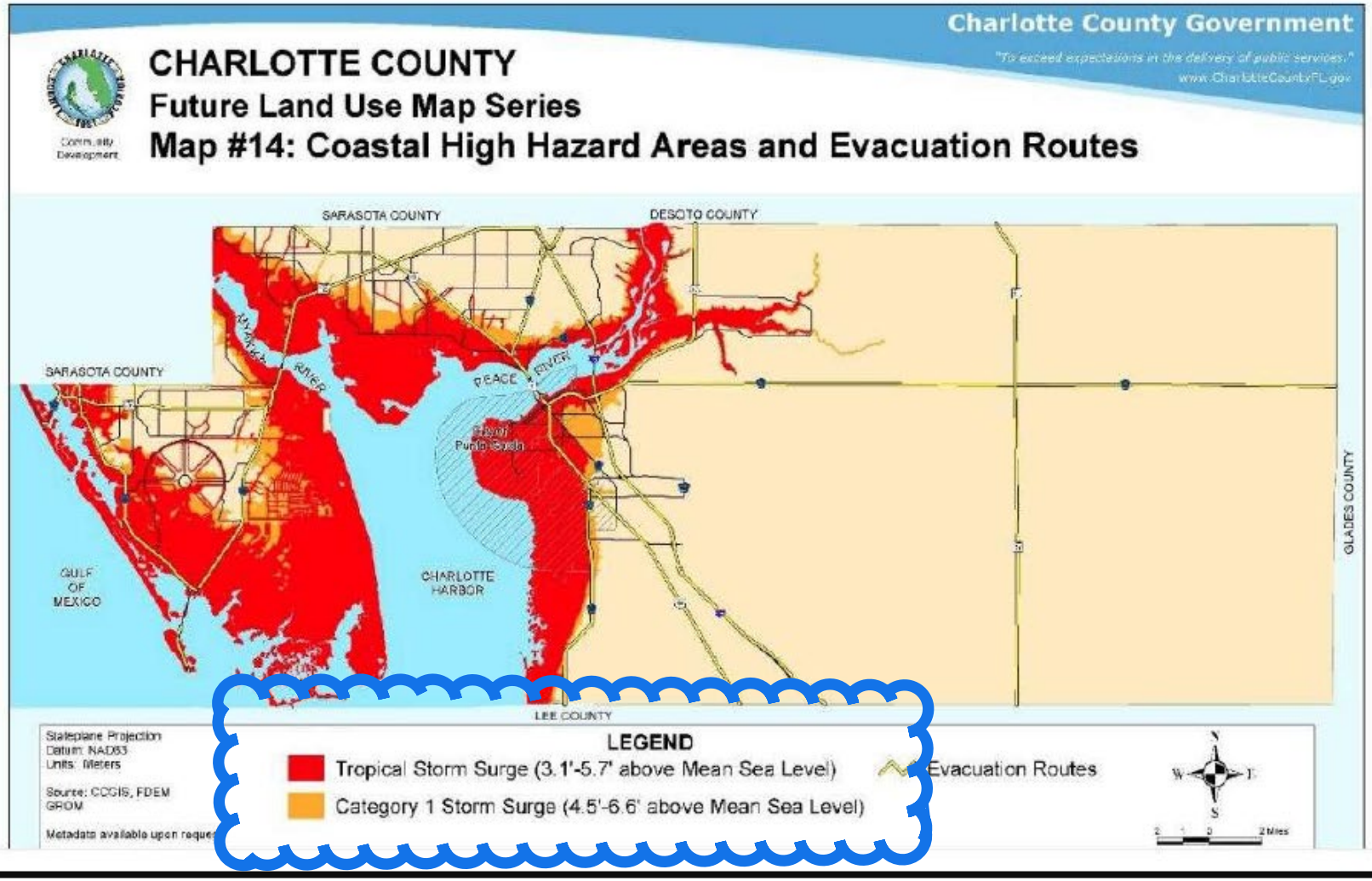
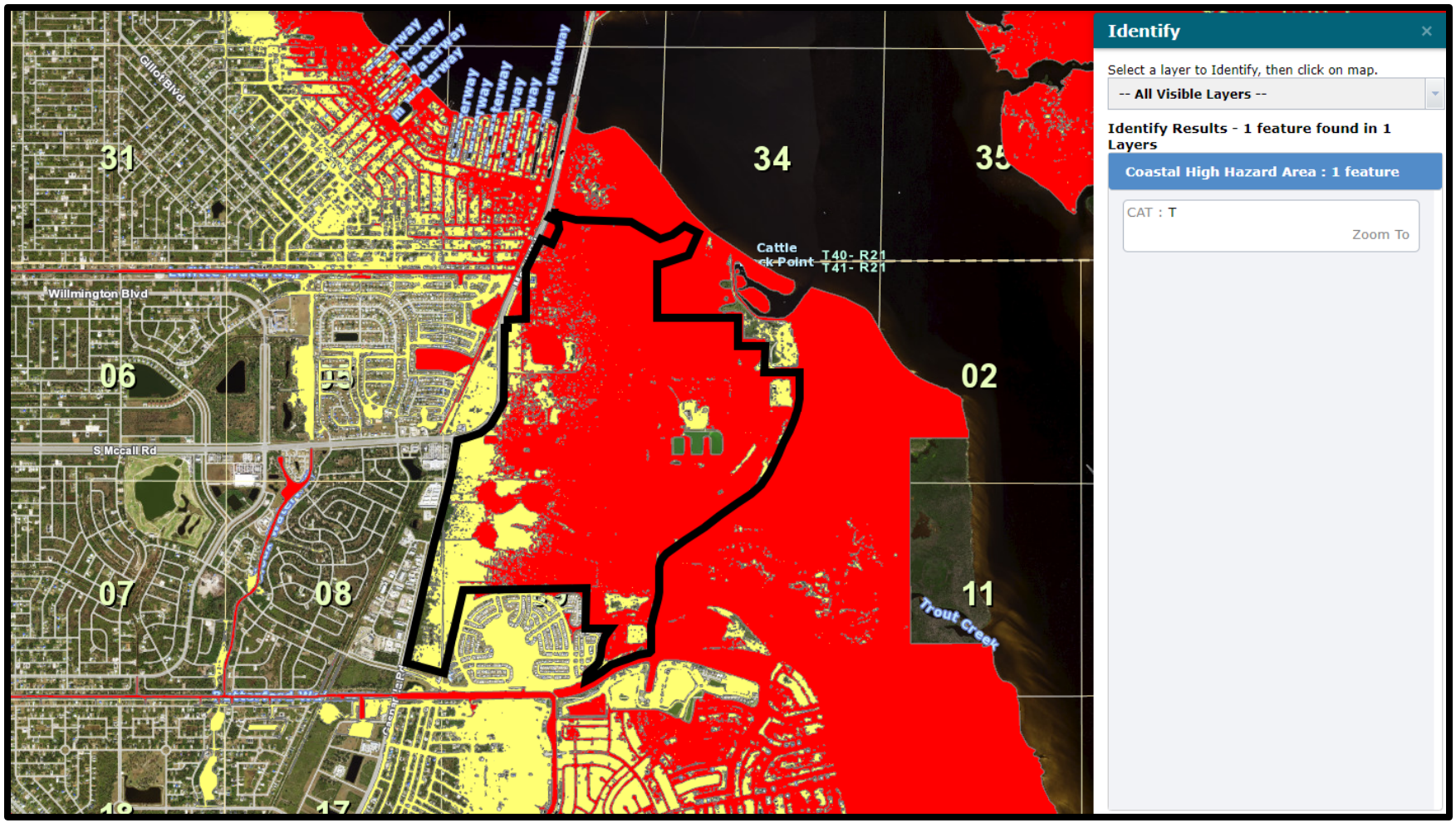

FEMA 9 AE
FEMA 8 AE
Identify
Select a layer to Identify, then click on map.
-- All Visible Layers --
Identify Results - 2 features found in 2 Layers
Property Ownership : 1 feature
Current FEMA Flood Zones (Effective 12/15/2022) : 1 feature
FEMA Zone Designations
Panel : 0212G
Floodway : OUT
SFHA : IN
Flood Zone : 8AE
Flood Zone Detailed : Coastal Floodplain
FIPS : 12015C
COBRA : Outside of CBRA Zone
Community : 120061
Base Flood Elevation (Feet) : 8 NAVD88
Zoom To
Clear Results
Cattle Dock Point
T 41-R 21 -Sec 04
T 41-R 21 -Sec 09
T 41-R 21 -Sec 03
T 41-R 21 -Sec 10
T 41-R 21 -Sec 08
T 41-R 21 -Sec 11
T 41-R 21 -Sec 02

MAP 14: Coastal High Hazard Areas and Evacuation Routes




Identify
Select a layer to Identify, then click on map.
-- All Visible Layers --
Identify Results - 1 feature found in 1 Layers
Coastal High Hazard Area : 1 feature
CAT : T
Zoom To
31
34
35
06
02
07
08
11
Willmington Blvd
S Mccall Rd
Cattle
T40- R21
T41- R21
Trout Creek

SLOSH DATA (NOAA)

Introduction

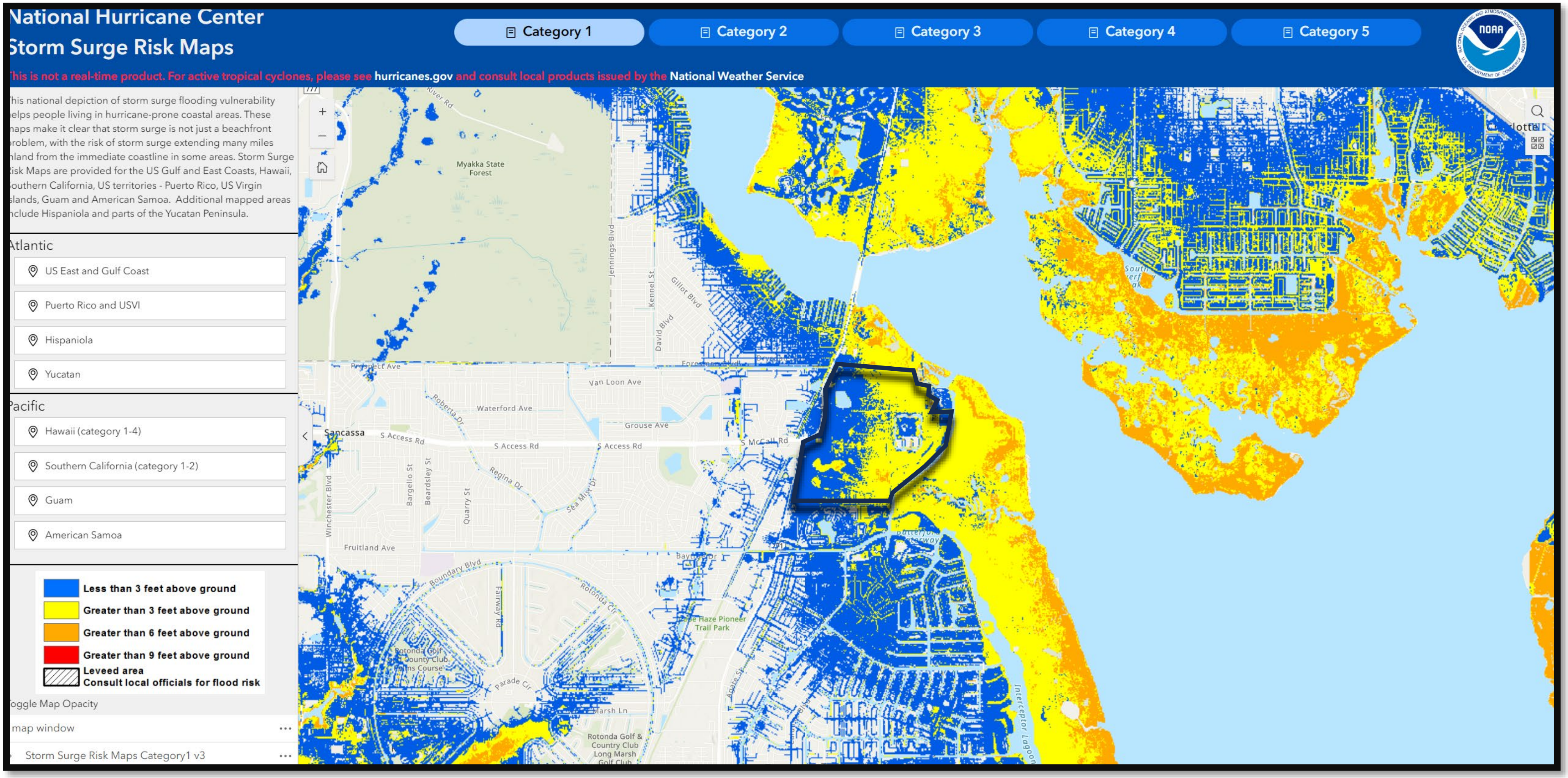
The National Oceanic and Atmospheric Administration (NOAA), specifically the National Weather Service's (NWS) National Hurricane Center (NHC), utilizes the hydrodynamic Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model to simulate storm surge from tropical cyclones. Storm surge information is provided to federal, state, and local partners to assist in a range of planning processes, risk assessment studies, and operational decision-making. In regards to the former, tens of thousands of climatology-based hypothetical tropical cyclones are simulated in each SLOSH basin (or grid), and the potential storm surges are calculated. Storm surge composites – Maximum Envelopes of Water (MEOWs) and Maximum of MEOWs (MOMs) – are created to assess and visualize storm surge risk under varying conditions. While MEOWs and MOMs provide a local assessment of storm surge risk, they do not provide a seamless perspective of the hazard owing to the many discrete SLOSH grids. This section briefly describes the scientific techniques used to create the seamless inundation maps for Category 1-5 hurricanes using the SLOSH MOM product as well as a description of the datasets and map viewer available to the public.

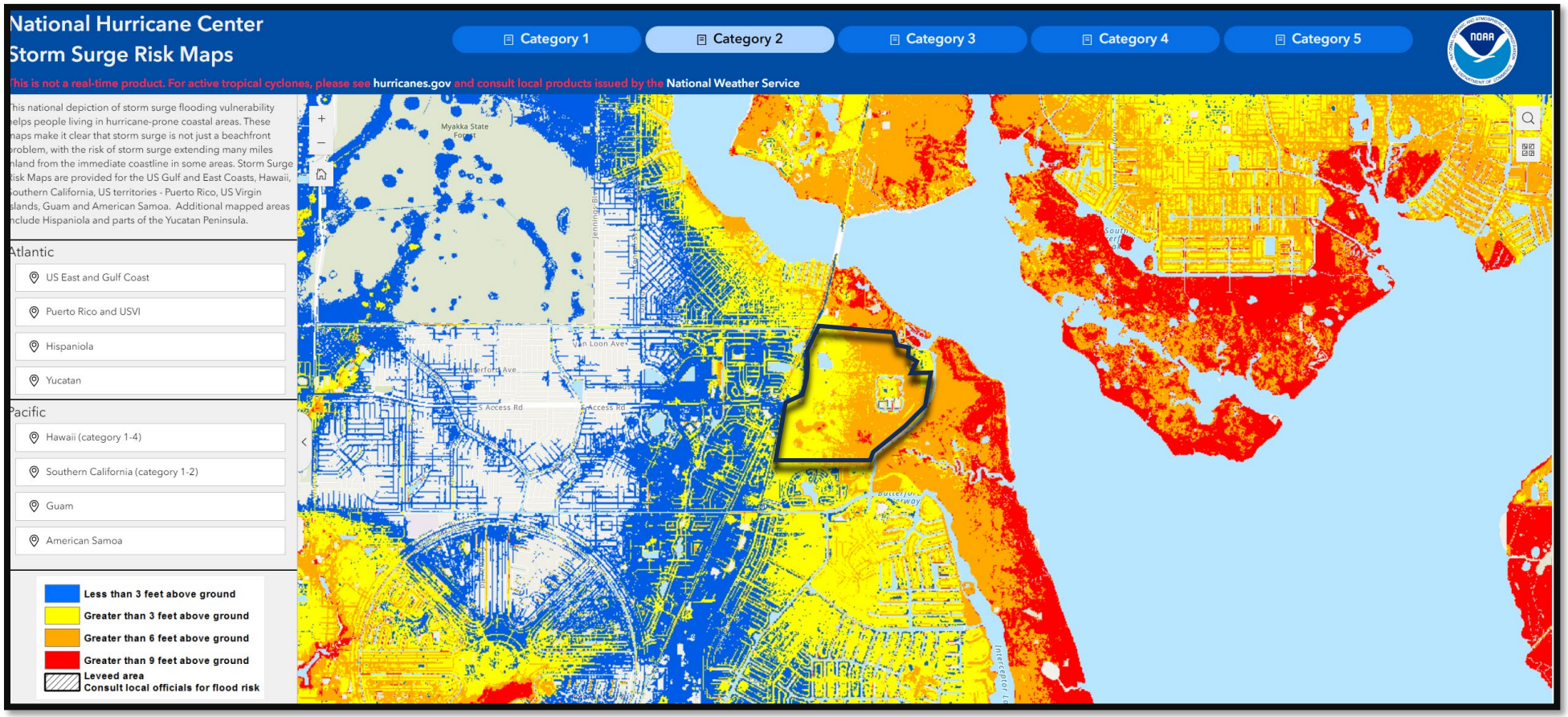
SLOSH Storm Surge Modeling

SLOSH has been used operationally for more than three decades. Over this time, SLOSH has provided valuable and accurate storm surge forecasts. For planning purposes, the NHC uses a representative sample of hypothetical storms to estimate the near worst–case scenario of flooding for each hurricane category. These SLOSH simulations are used to create a set of operational and planning products.

The NHC provides two products based on hypothetical hurricanes: MEOWs and MOMs. MEOWs are created by computing the maximum storm surge resulting from up to 100,000 hypothetical storms simulated through each SLOSH grid of varying forward speed, radius of maximum wind, intensity (Categories 1-5), landfall location, tide level, and storm direction. A MEOW product is created for each combination of category, forward speed, storm direction, and tide level. SLOSH products exclude Category 5 storms north of the NC/VA border and for Hawaii. For each storm combination, parallel storms make landfall in 5 to 10 mile increments along the coast within the SLOSH grid, and the maximum storm surge footprint from each simulation is composited, retaining the maximum height of storm surge in a given basin grid cell. These are called MEOWs and no single hurricane will produce the regional flooding depicted in the MEOWs. SLOSH model MOMs are an ensemble product of maximum storm surge heights. SLOSH MOMs are created for each storm category by retaining the maximum storm surge value in each grid cell for all the MEOWs, regardless of the forward speed, storm trajectory, or landfall location. SLOSH MOMs are available for mean tide and high tide scenarios and represent the near worst-case scenario of flooding under ideal storm conditions. A high tide initial water level was used for the storm surge risk maps.

SLOSH employs curvilinear polar, elliptical, and hyperbolic telescoping mesh grids to simulate the storm surge hazard. The spatial coverage for each SLOSH grid ranges from an area the size of a few counties to a few states. The resolution of individual grid cells within each basin ranges from tens to hundreds of meters to a kilometer or more. Sub–grid scale water features and topographic obstructions such as channels, rivers, and cuts and levees, barriers, and roads, respectively are parameterized to improve the modeled water levels. Figure 1 shows the SLOSH basins used to create the surge risk maps.


National Hurricane Center
Storm Surge Risk Maps
Category 1
Category 2
Category 3
Category 4
Category 5
his is not a real-time product. For active tropical cyclones, please see hurricanes.gov and consult local products issued by the National Weather Service
his national depiction of storm surge flooding vulnerability elps people living in hurricane-prone coastal areas. These naps make it clear that storm surge is not just a beachfront roblem, with the risk of storm surge extending many miles nland from the immediate coastline in some areas. Storm Surge isk Maps are provided for the US Gulf and East Coasts, Hawaii, outhern California, US territories - Puerto Rico, US Virgin slands, Guam and American Samoa. Additional mapped areas nclude Hispaniola and parts of the Yucatan Peninsula.
tlantic
US East and Gulf Coast
Puerto Rico and USVI
Hispaniola
Yucatan
acific
Hawaii (category 1-4)
Southern California (category 1-2)
Guam
American Samoa
Less than 3 feet above ground
Greater than 3 feet above ground
Greater than 6 feet above ground
Greater than 9 feet above ground
Leveed area
Consult local officials for flood risk
oggle Map Opacity
map window
Storm Surge Risk Maps Category1 v3
Myakka State Forest
Sancassa
S Access Rd
Van Loon Ave
Waterford Ave
Grouse Ave
Fruitland Ave
Boundary Blvd
Winchester Blvd
Rotonda Golf & Country Club Long Marsh Golf Club


National Hurricane Center
Storm Surge Risk Maps
Category 1
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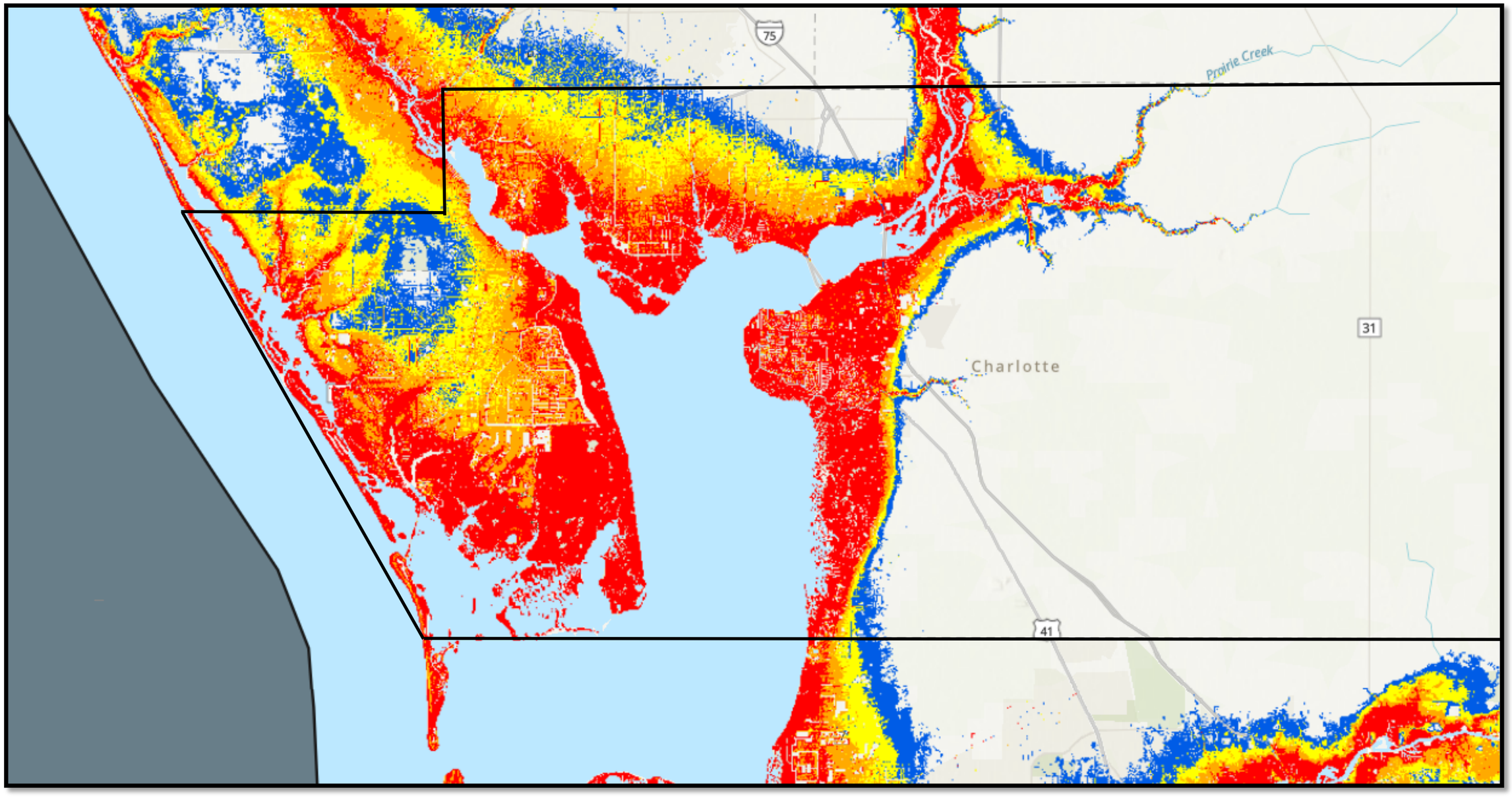
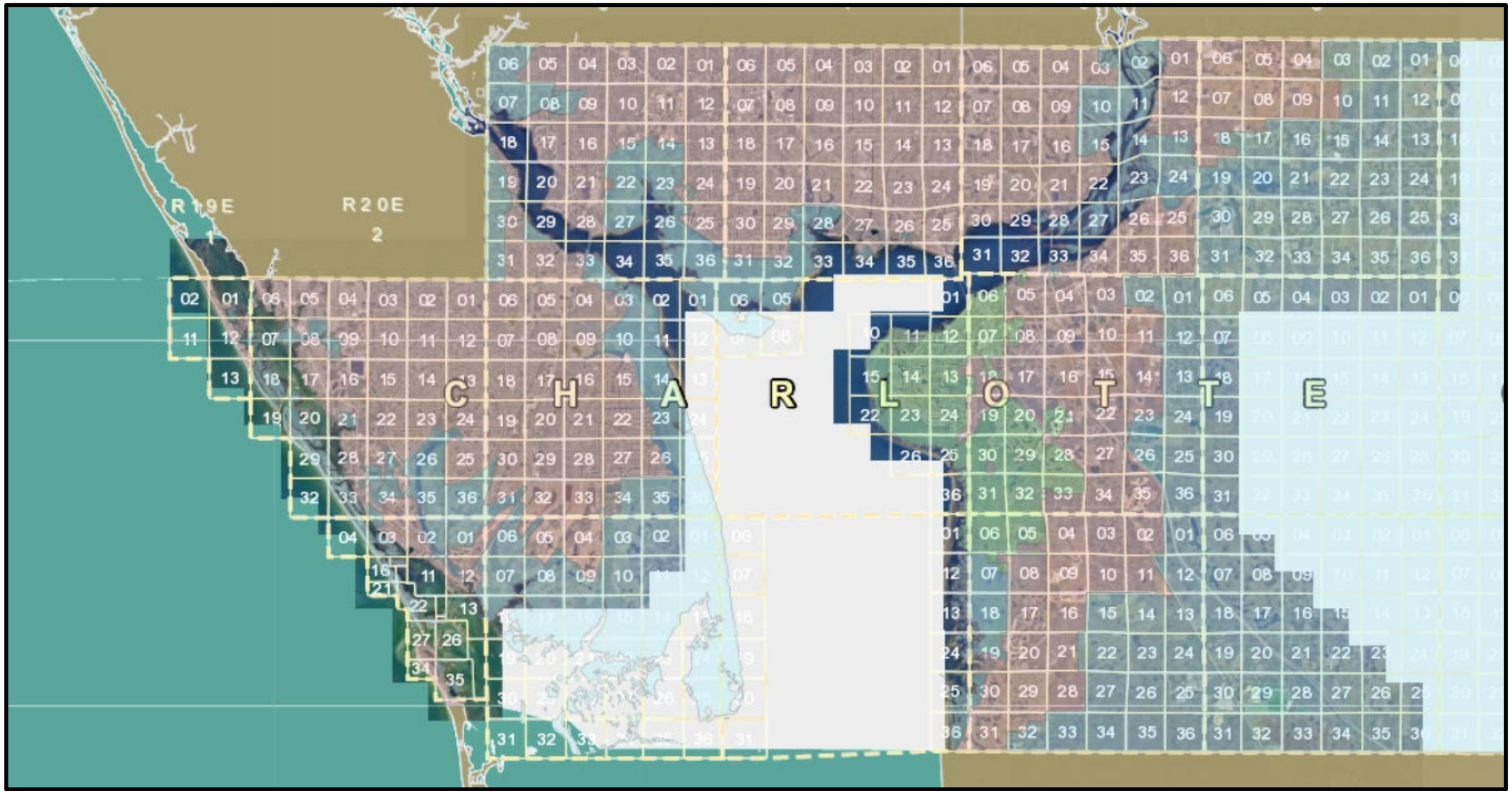
Category 4
Category 5
This is not a real-time product. For active tropical cyclones, please see hurricanes.gov and consult local products issued by the National Weather Service
This national depiction of storm surge flooding vulnerability helps people living in hurricane-prone coastal areas. These maps make it clear that storm surge is not just a beachfront problem, with the risk of storm surge extending many miles inland from the immediate coastline in some areas. Storm Surge Risk Maps are provided for the US Gulf and East Coasts, Hawaii, Southern California, US territories - Puerto Rico, US Virgin Islands, Guam and American Samoa. Additional mapped areas include Hispaniola and parts of the Yucatan Peninsula.
Atlantic
US East and Gulf Coast
Puerto Rico and USVI
Hispaniola
Yucatan
Pacific
Hawaii (category 1-4)
Southern California (category 1-2)
Guam
American Samoa
Less than 3 feet above ground
Greater than 3 feet above ground
Greater than 6 feet above ground
Greater than 9 feet above ground
Leveed area
Consult local officials for flood risk
Myakka State Forest
Van Loon Ave
S Access Rd
NOAA

CHARLOTTE COUNTY – CATEGORY 3 STORM SURGE MAP



CHARLOTTE COUNTY – SERVICE AREA DELINEATION MAP



DEVELOPMENT SUMMARY

- DEVELOPMENT AREA EXISTING GRADES: LOWER IN THE EASTERN PORTION AND INCREASE TO THE WEST
- PROPERTY DIVIDED UP INTO TWO PORTIONS: EASTERN AND WESTERN
    - AVERAGE EXISTING GRADE EASTERN: 3.2 FEET
    - AVERAGE EXISTING GRADE WESTERN: 4.7 FEET
- REQUIRED FINISHED FLOOR PER FEMA: 8 AND 9 FEET (USE 9 FEET FOR EVALUATION)
- REQUIRED FINISHED FLOOR FLORIDA BUILDING CODE: 10 FEET (1.0 FOOT ABOVE FEMA)
- MAX STORM SURGE ELEVATION PER CHHA MAP:
    - TROPICAL STORM: 5.7 FEET
    - CATEGORY 1: 6.6 FEET
- ESTIMATED SURGE LEVEL PER SLOSH MAPS (EASTERN PORTION USED TO DETERMINE RANGE)
    - CATEGORY 1: 6.2’ – 9.2’ (3 – 6 FEET ABOVE EXISTING GROUND)
        - 7.7’ AVERAGE SURGE ELEVATION
        - 1.1 FEET HIGHER THAN CHHA MAP ESTIMATE ELEVATION
    - CATEGORY 2: 9.2’ – 12.2’ (6 – 9 FEET ABOVE EXISTING GROUND)
        - 10.7 AVERAGE SURGE ELEVATION
    - EVALUATION CONSIDERED CATEGORY 2 ONLY DUE TO CATEGORY 3 EFFECTS ON URBAN SERVICE AREA IN CHARLOTTE COUNTY

SITE CONDITIONS COMPARED TO STANDARDS

- MINIMUM FINISHED FLOOR PER CODE OF 10 FEET IS:
    - 1.0 FEET ABOVE MINIMUM FEMA REQUIRED FINISHED FLOOR
    - 4.3 FEET ABOVE TROPICAL STORM SURGE ELEVATION OF CHHA MAP
    - 3.4 FEET ABOVE CATEGORY 1 STORM SURGE ELEVATION OF CHHA MAP
    - 2.3 FEET ABOVE THE AVERAGE CATEGORY 1 ELEVATION OF THE SLOSH MAP
    - 0.7 FEET BELOW THE AVERAGE CATEGORY 2 ELEVATION OF THE SLOSH MAP

PROPOSED SITE CONDITIONS

- PROPOSED MINIMUM FINISHED FLOOR OF 10.7 FEET IS:
    - 1.7 FEET ABOVE MINIMUM FEMA REQUIRED FINISHED FLOOR
    - 0.7 FEET ABOVE MINIMUM FLORIDA BUILDING CODE (FEMA PLUS 1 FOOT)
    - 5.0 FEET ABOVE TROPICAL STORM SURGE ELEVATION OF CHHA MAP
    - 4.1 FEET ABOVE CATEGORY 1 STORM SURGE ELEVATION OF CHHA MAP
    - 3.0 FEET ABOVE THE AVERAGE CATEGORY 1 ELEVATION OF THE SLOSH MAP
    - 0.0 FEET ABOVE THE AVERAGE CATEGORY 2 ELEVATION OF THE SLOSH MAP