2023

Folly 2050: Planning for Water

ELKO COASTAL CONSULTING INC.

Sea Grant
S.C. SEA GRANT CONSORTIUM

COLLEGE of CHARLESTON
1770

Summary Overview

CITY OF FOLLY BEACH

Folly 2050: Planning for Water

Folly 2050: Planning for Water is a 2023 update of the 2017 City of Folly Beach Sea Level Rise Adaptation Plan. It includes recent climate data, as well as new infrastructure and drainage projects and policy updates. The 2023 update highlights the valuable work that the city has completed; the important work that is underway; and the essential work ahead.

Based on input from over 150 stakeholders, initiatives are grouped under six Adaptation Actions Categories to plan for Sea Level Rise (SLR):

2023 Adaptation Actions Categories

- Building Codes & Zoning
- Transportation
- Land Management
- Drainage
- Septic
- Engagement

Water Level Data

The National Oceanic and Atmospheric Administration's (NOAA) 2022 Sea Level Rise Technical Report projects that by the year 2050, water levels will be about 1 foot higher than today and that today's flood will happen 10 times more often. The city's new, local tide gauge on the bridge helps plan for, and respond to, flood events in the community. Based on this updated science, the city adopted a revised planning horizon to anticipate **1 foot of increased water level by 2050.**

Flood Mapping

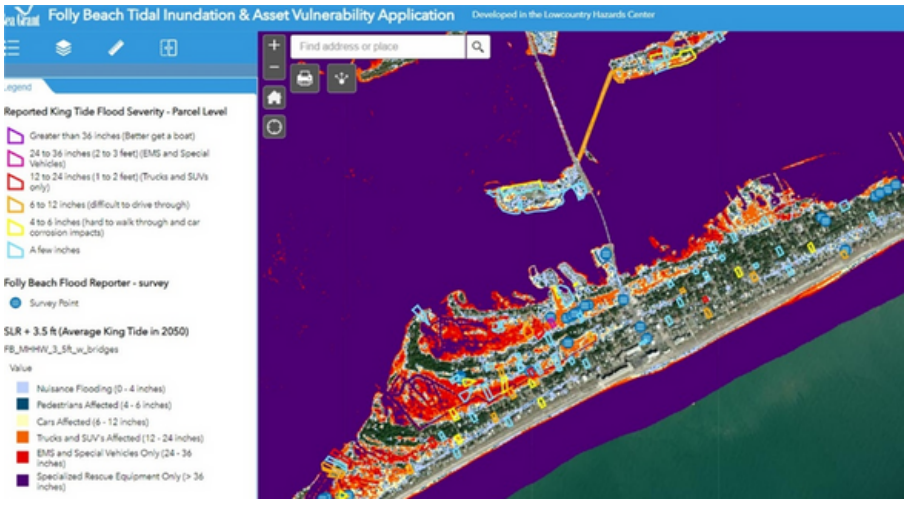
The S.C. Sea Grant Consortium and the College of Charleston conducted a sophisticated, local flood mapping analysis to visualize future water level scenarios and to assess vulnerability. Explore how future water levels will affect your property!

Start exploring!

Access the mapping application

Visit: Folly Flood Mapping Application

SCAN ME



Featured Projects

CITY OF FOLLY BEACH

DRAINAGE IMPROVEMENTS

The 2nd and 3rd block of East Ashley Drainage Improvement project was carried out in partnership with Charleston County. The goal was to enhance the drainage system in the area. The scope of the project involved relocating and increasing the size of certain pipes in the southwest (SW) region. Additionally, a new tide valve was installed at the 2nd East outfall.

A significant part of the project was focused on creating a special type of pedestrian path known as a "pervious ped path." This path allows water to pass through it, reducing the risk of flooding. The pervious ped path was constructed from E. Arctic Ave to E. Cooper Ave.

Folly Beach working on drainage projects to mitigate flooding

MARSH RESTORATION

"Seeds to Shorelines" was a community salt marsh restoration event during the summer of 2019. These efforts were a direct result of the Marsh Management Plan.

This pilot program involved 30 community volunteers, transplanting Spartina alterniflora upland of the SCORE oyster restoration project at the County boat ramp. This initiative also included salt marsh exploration and stewardship activities to advance the City's goal of continued education and outreach.

COMMUNITY RAIN GARDEN

The 2022 community rain garden was an initiative designed to sustainably manage and control stormwater runoff. Rain gardens are strategically located to capture and filter rainwater, allowing it to naturally soak into the ground rather than running off into storm drains and causing water pollution.

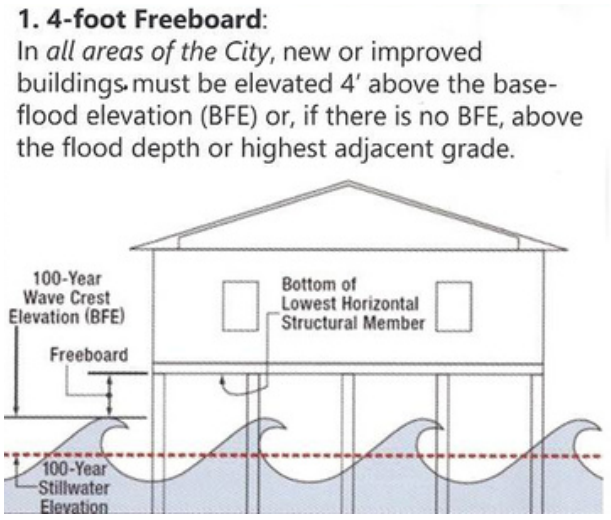
COFB COMMUNITY RAIN GARDEN YOUTUBE

POLICY AND ORDINANCES

Twenty-five new land use regulations were adopted by the City between 2015 and 2020. Most were adopted during the nine-month moratorium and included ordinances for: setbacks, buffers, septic tanks, marsh island development, dune protection, seawalls, construction elevations, and other beach and marshfront building regulations.

For example, the City adopted a regulation reducing the likelihood of future "super-beachfront houses" in front of the existing row of beachfront houses.

COFB has also updated the Flood Damage Prevention and Zoning Ordinance →



View the Full Strategy Online

CITY OF FOLLY BEACH

SCAN ME

Flood Mapping & Reporting

As initiatives from the Folly 2050 Sea Level Rise Adaptation Report are implemented, they will be updated online regularly rather than in a static paper document. This will provide an accessible location to find up-to-date answers and keep citizens informed on the evolving nature of city projects.

1. Scan the QR Code, or
2. Click here

To stay informed, and to access the full length strategy

A preliminary vulnerability analysis revealed that a 2050 King Tide event (3.5 feet of added water level) will impact:

- 70% of stormwater infrastructure
- 46% of building footprints
- 37% of roads
- 35% of parcels (at their center point)
- 20% of septic drain fields (on the surface, below ground impacts not yet determined)

Planning & Community Engagement

The project team kicked off this plan update in January 2023 by conducting a self-assessment to review implementation progress on the above sea level rise adaptation actions developed in the initial 2017 report. The College of Charleston and S.C. Sea Grant Consortium began flood mapping shortly thereafter.

Community input was the cornerstone of this project, which included:

- Website
- Emails
- Social media posts
- Online survey for Folly property owners and residents
- Flood Reporter website to allow sharing of photos and public input
- Interviews with key stakeholders
- In-person planning charette
- Public engagement event held in conjunction with a community event at the Folly River Park on July 11, 2023.