MyCoast: South Carolina

Enhancing Public Awareness of Coastal Hazards Through Citizen Engagement

South Carolina Department of Health and Environmental Control
Promoting and Protecting the Health of the Public and the Environment
DHEC Ocean and Coastal Resource Management

- Established in 1977 under the Coastal Tidelands and Wetlands Act, subsequent to the 1972 Federal Coastal Zone Management Act
- Delegated Federal Program; Coastal Management Plan adopted in 1979
- DHEC-OCRM oversees activities in the Coastal Zone, consisting of the eight coastal counties
- Direct permitting authority for the Critical Area (tidelands, coastal waters, beaches and oceanfront sand dune system)
- Certification authority for state and federal permits
- Technical assistance and planning with municipal governments
- Data, information, tools and services
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Program Strategy: Coastal Hazards

• Section 309 of NOAA Coastal Zone Management Act
  ▪ Five (5) year strategy based on assessment and stakeholder input
  ▪ Policy analysis, regulation development and enhanced stakeholder engagement
Coastal Hazards

- Distinguish between episodic events and chronic hazards
  - Recognize that chronic hazards may exacerbate episodic events
    - Chronic: Sea Level Rise, Erosion
    - Episodic: Hurricanes, Tropical Storms, Nor’easters
  - Examination of frequency and duration of events and impact to public safety, mobility and infrastructure
MyCoast: South Carolina

• Web and mobile device-enabled site that allows users to easily upload photographs and characterize environmental conditions associated with significant coastal events
• Self-contained hosted platform
• Two discrete, though functionally similar applications: King Tides and Storm Witness
• http://mycoast.org/sc
King Tides Initiative

- Launched in January 2014; Builds on international efforts
- Citizen photo-documentation of highest predicted seasonal tides
- 25 predicted events in 2014
- MyCoast appends useful data including:
  - Date, time and geolocation
  - Proximity to nearest tide gauge and tide stage
  - Meteorological information
MyCoast: South Carolina

- KING TIDE
- STORM WITNESS
- VIEW PHOTOS

Cancel
Select Photo *

Choose File: no file selected

STEP 2: Describe Photo

Comments
(not required)

STEP 3: Add or Verify Photo Info

We'll try to grab any data in your photo (if there is any).

Date of Photo *
7/21/2014

Time of Photo *
08:10 PM

Photo Release *
Barre Street, Charleston, SC

Weather Overview

- Wind Speed/Direction: 2.33 MPH/4°
- Temperature: 51.24°F
- Total Rainfall – Calendar Day: 0.45 inches
- Total Rainfall – Past 24 Hours: 0.2 inches

Closest Tide Station

- Charleston Tide Station (1.2 miles away)
- Water level at time of photo: 7.1 feet
  - High tide at 08:25: 6.7 feet
  - (0 hours 26 minutes earlier)
King Tides Promotion and Early Success

- Icon incorporated into annual DHEC Tide Chart
- E-flyers distributed to stakeholders and listserves
- Agency Facebook and Twitter
- “King Tide” integrated into local vernacular
  - Facilitated by social media, use of #
  - Media favors a term that is easily defined and understood (“extreme lunar tide”, “spring tide”)
  - Drawing direct relationship between King Tide events and mobility, impact to infrastructure
- Extensive media coverage
Next Steps

• Compare predicted King Tide levels with observed tide heights
• Analyze frequency of King Tide events (tides over 6.6 ft MHW/Charleston Harbor)
• Incorporate frequency and impact into long-term analysis and planning decisions
• Validate SLR visualization projections
MyCoast – Storm Witness

- Facilitates collection and communication of storm-related damage to beach and beachfront infrastructure
  - Efficiently analyze post-storm beach conditions
  - Expedite recovery activities, including permitting and other regulatory decisions
  - Coordinate with local authorities and state emergency managers
Erosion & Erosion Control Structures

Public Access/Dune Walkover

Habitable Structures

Water Supply and Waste Water

Septic Systems

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Promoting and Protecting the Health of the Public and the Environment
**Definitions**

**Coastal Erosion** The wearing of land and the removal of beach or dune sediment often caused by wind, waves, tides, drainage, and storm-surge.

**Dune Walkover** A structure, typically a wooden walkway, built over the dunes to allow access to the beach, and prevent permanent damage and unnecessary wear and tear of dunes from pedestrian traffic accessing the beach.
STEP 3: Add or Verify Photo Info

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Photo Data

Date of Photo *
7/31/2014

Time of Photo *
09:01 PM

Photo Release *
I agree that this photo may be used with or without attribution.
State Administration

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Featured reports will show up in selected locations including the South Carolina landing page.

Little River, SC

- Internal-only
- Public
- Public and featured

VIEW EDIT REPORT
TRASH

Charleston, SC

- Internal-only
- Public

VIEW EDIT REPORT
TRASH
Thank you!

• MyCoast Members!
• NOAA
• Wes Shaw, Principal, Blue Urchin Digital
• Sarah Latshaw and Will Salters, SC DHEC Ocean and Coastal Resource Management
Questions?

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