



Sustainable Coastal Development In a Changing Climate



LANDON K. (LANNIE) SMITH, CBO, CFM
BUILDING OFFICIAL / FLOODPLAIN ADMINISTRATOR
EMERGENCY MANAGEMENT COORDINATOR

CITY OF ORANGE BEACH
DEPARTMENT OF ENGINEERING AND
ENVIRONMENTAL SERVICES



lsmith@cityoforangebeach.com

COMMUNITY RESILIENCE

A LOCAL COMMUNITY PERSPECTIVE

- Community Expectations
- Policy Positions
- Hazards Approach
- Risk Assessment
- Opportunities for Mitigating the Risks
- Community Outreach
- Incentives at the Local Level



Climate Change

- Weather vs. Climate
 - Weather: day to day changes in temperature, rainfall, cloudiness, moisture
 - Climate: long term changes in weather patterns on our planet
- Effects of climate change:
 - Sea level rise
 - Warmer sea surface temperatures
 - Drought (water shortage), flooding
 - Stronger, more frequent and intense storms

MITIGATING THE RISK - SLR – FLOODING

- Account for SLR in Local Flood Policy
- Utilize Existing Mitigation Strategies
- Exceed the Minimum Regulations
- Freeboard
- CRS
- Beach Nourishment

WHAT IS CRS?



The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements.

As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

- Reduce flood losses;
- Facilitate accurate insurance rating; and
- Promote the awareness of flood insurance.

BEACH NOURISHMENT AS A MITIGATION TECHNIQUE





olsen associates, inc.



1 October 2003



23 September 2004



1 March 2005

olsen associates, inc.

22 September 2004



Pre-project Ivan impacts

1 September 2005
post-Katrina



Post-project Katrina impacts

olsen associates, inc.

MITIGATING THE EFFECTS OF WINDSTORMS

**STRENGTH
IS IN THE DETAILS**



THE NATIONAL STANDARD FOR RESILIENT CONSTRUCTION



The IBHS FORTIFIED Home™ Program

IBHS created the FORTIFIED Home™ program to help strengthen homes from hurricanes, high winds, hail, and severe thunderstorms. Protect your home from natural disasters by using FORTIFIED Home construction standards and methods. IBHS FORTIFIED goes beyond emergency preparedness and disaster preparedness to give you the peace of mind that comes from knowing your home has been FORTIFIED to offer disaster protection.

IBHS Research Center | Richburg, SC

Opened in 2010







CAN WE BUILD TO A HIGHER STANDARD?

CITY OF ORANGE BEACH, ALABAMA



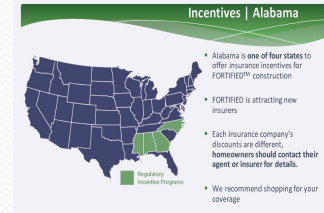
COASTAL CONSTRUCTION SUPPLEMENT



Adopted by the Orange Beach City Council as a Supplement to the
2012 International Residential Code® and 2012 International Building Code®.

MITIGATION INCINTIVES

- **Shorter Recovery Time**
- **Mitigation Grant Programs**
- **CRS Community Discounts for Flood Premiums**
- **Wind Mitigation Credits for Wind Premium**
- **DOI Mandated Premium Discounts**
- **Permit Fee Incentives**



RESILIENCE MUST BE ACHIEVED AT THE COMMUNITY LEVEL!





THANK YOU
FOR YOUR TIME AND ATTENTION.



Questions?