Leveraging the Community Rating System for Climate Adaptation

Southeast and Caribbean Climate Community of Practice

Webinar Series
23 March 2015
Today’s Speakers:

Shana Jones, J.D., Carl Vinson Institute of Government at the University of Georgia

Shannon Jarbeau, CFM, Wetlands Watch

Ed DiTommaso, AICP, GISP, Ecological Planning Group

Allison Hardin, CFM, City of Myrtle Beach, South Carolina

* Presentation given by Liz Fly, CISA & SC Sea Grant Consortium

Please MUTE your phones! (*6)

Type your questions into the chat box for Q&A at the end
LEVERAGING CRS FOR CLIMATE ADAPTATION

Shana Jones, Carl Vinson Institute of Government, UGA
Shannon Jarbeau, Wetlands Watch
Southeast & Caribbean Climate Community of Practice
AGENDA

NFIP: A Quick Overview

Recent Changes to NFIP

CRS Overview & Sea Level Rise

Leveraging Existing CRS Activities for Adaptation
NFIP & CRS: A QUICK OVERVIEW

- Identification of flood risk
- Development of building standards in high risk areas
- Make flood insurance available in participating communities

Flood maps
Flood ordinance: minimum standards
Federally-subsidized flood insurance
NFIP: Recent Changes

National Flood Insurance Program Debt Grows

Sources: FEMA 2013a; estimate for 2012 NFIP payments for Hurricane Sandy from King 2013; estimate for 2012 NFIP debt based on its borrowing limit of $30.4 billion set by the Hurricane Sandy Relief Act.
NFIP: PREMIUM INCREASES

- Non-primary residences, non-residential properties, Severe Repetitive Loss, or substantially damaged/improved properties will increase **25%** per year.

- All other properties: Average **10%** increase, maximum of **18%** annual increase.

- **BUT** these increases do not include HFIAA surcharge or Federal Policy Fee.

- True rate increase will be **20%** on average, could be up to **37%** for subsidized structures that are not primary homes.

Source: www.davegranlund.com
# NFIP: Recent Changes

<table>
<thead>
<tr>
<th>New/Increased Fees</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HFIAA Surcharge</td>
<td>$25 for primary residence; $250 for all others</td>
</tr>
<tr>
<td>Federal Policy Fee</td>
<td>$22 for lowest risk, $45 for all others</td>
</tr>
<tr>
<td>Reserve Fund Assessment</td>
<td>10% for lowest risk, 15% for all others</td>
</tr>
</tbody>
</table>

Summary: [www.wetlandswatch.org/WetlandScience/SeaLevelRise/FloodInsurance.aspx](http://www.wetlandswatch.org/WetlandScience/SeaLevelRise/FloodInsurance.aspx)
CRS is a **voluntary** program offering discounts on flood insurance to reward good floodplain management within a community. A primary goal is to reduce flood damage to insurable property.
## CRS Rating Table

<table>
<thead>
<tr>
<th>Class</th>
<th>Points</th>
<th>Premium Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4500+</td>
<td>45%</td>
</tr>
<tr>
<td>2</td>
<td>4000-4499</td>
<td>40%</td>
</tr>
<tr>
<td>3</td>
<td>3500-3999</td>
<td>35%</td>
</tr>
<tr>
<td>4</td>
<td>3000-3499</td>
<td>30%</td>
</tr>
<tr>
<td>5</td>
<td>2500-2999</td>
<td>25%</td>
</tr>
<tr>
<td>6</td>
<td>2000-2499</td>
<td>20%</td>
</tr>
<tr>
<td>7</td>
<td>1500-1999</td>
<td>15%</td>
</tr>
<tr>
<td>8</td>
<td>1000-1499</td>
<td>10%</td>
</tr>
<tr>
<td>9</td>
<td>500-999</td>
<td>5%</td>
</tr>
<tr>
<td>10</td>
<td>0-499</td>
<td>0%</td>
</tr>
</tbody>
</table>
300 Series: Public Information
Elevation certificates, outreach, hazard disclosure

400 Series: Mapping and Regulations
Open space preservation, stormwater management

500 Series: Flood Damage Reduction
Acquisition/relocation, floodplain management planning

600 Series: Warning and Response
Flood warning and response, dams, levees
In 2013, Section 110-15 of the Manual listed credits “for community efforts to anticipate the future insofar as it relates to flood risk and natural floodplain functions, and to take actions that can mitigate any adverse impacts that could materialize.”

This is a good first step for policy. BUT the credits possible are less robust than first appears – focus on other activities already in the Manual are likely to do more for adaptation purposes AND generate more credits.
<table>
<thead>
<tr>
<th>Category</th>
<th>Measure</th>
<th>Maximum credits available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Information Activities (Series 300)</td>
<td><strong>Map Information Service</strong>: provide inquirers with information about local flood hazard and about flood-prone areas that are predicted to be susceptible to flooding in the future</td>
<td>20 pts.</td>
</tr>
<tr>
<td></td>
<td><strong>Hazard Disclosure</strong>: real estate agents disclose to prospective buyers a property’s potential flood hazard before the lender notifies the prospective buyers of the need for flood insurance</td>
<td>8 pts.</td>
</tr>
<tr>
<td>Mapping and Regulation (Series 400)</td>
<td><strong>Program Prerequisite</strong>: community must demonstrate that it has programs which minimizes increases in future flooding</td>
<td>Prerequisite to become a Class 4 or better community</td>
</tr>
<tr>
<td></td>
<td><strong>Program Prerequisite</strong>: community is using regulatory flood elevations in the V and coastal A zones that reflect future conditions, including sea level rise</td>
<td>Prerequisite to become a Class 1 or better community</td>
</tr>
<tr>
<td></td>
<td><strong>Floodplain Mapping</strong>: based on future-conditions hydrology, provided that the community’s floodplain development regulations use base flood elevations based on future. When on the coast, a community must use an estimate of the sea level rise anticipated by the year 2100 or later.</td>
<td>160 pts.</td>
</tr>
<tr>
<td></td>
<td><strong>Stormwater</strong>: if a community’s stormwater program regulates runoff from future development. Must regulate runoff from a 10-year storm or larger. Must be legally enforceable.</td>
<td>380 pts.</td>
</tr>
<tr>
<td></td>
<td><strong>Stormwater</strong>: community’s Watershed Master Plan manages future peak flows so that they do not exceed present values</td>
<td>315 pts.</td>
</tr>
</tbody>
</table>
| Flood Damage Reduction Activities (Series 500) | **Floodplain Management Planning**: flood hazard assessment and problem analysis address areas likely to flood and flood problems that are likely to get worse in the future  
  **Step 4**: requires community planners to review and analyze data from existing flood studies to assess the sources, frequency, extent, and causes of flooding  
  **Step 5**: requires community planners to collect and summarize data on what is at risk | Step 4: 35 pts.  
Step 5: 52 pts. |

Total credits available: 970
Hunter Jones, a third-year law student at the University of Georgia School of Law, is preparing policy memos focusing on the participation of coastal Georgia cities and counties in the Community Rating System (CRS), a federal program incentivizing communities to take steps to reduce their flood risk. Jones has focused her legal studies on environmental law and is interested in a career in environmental policy. She served as co-chair of the 2015 Red Clay Conference, an environmental law conference at the UGA School of Law.
3 Adaptation Approaches:

- Management/Retreat
- Accommodation
- Protection

Source: Virginia Institute of Marine Science, “Recurrent Flooding Study for Tidewater Virginia”, 2013
CRS AND SEA LEVEL RISE: MANAGEMENT/RETREAT

- Open space planning tools
  - Cluster development
  - Low-density zoning
  - Land preservation tax credits

- Open space preservation

- Acquisition/relocation
CRS AND SEA LEVEL RISE: ACCOMMODATION

- Local ordinances
  - Freeboard
  - Coastal A-Zone regulations
  - Limiting development in the floodplain
- Building mitigation
- Stormwater Management
- Emergency warning and response
CRS AND SEA LEVEL RISE: PROTECTION

- Structural flood control
- Dune protection
- Beach nourishment
- Wetland protection, creation, and restoration
Flood Protection Pay-Offs: A Local Government Guide to the Community Rating System

www.wetlandswatch.org/WetlandScience/SeaLevelRise/CRSGuide.aspx
A STUDY ON TYBEE ISLAND’S CRS AND OPEN SPACE PROGRAM

National Flood Insurance Program
Community Rating System
March 23, 2015
BACKGROUND

• CRS RECERTIFICATION & CYCLE VISIT APRIL 2014
• NEW CRS MANUAL 2013
• CHANGES TO ACTIVITIES / CREDITS
• BIGGERT WATERS ACT/HOMEOWNER FLOOD INSURANCE AFFORDABILITY ACT OF 2014
TYBEE ISLAND – CRS PROGRAM AUDIT

CATEGORIES OF FLOODPLAIN MANAGEMENT ACTIVITIES:
• PUBLIC INFORMATION
• MAPPING AND REGULATIONS
• FLOOD DAMAGE REDUCTION
• WARNING AND RESPONSE
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>330</td>
<td>Outreach Projects</td>
<td>315</td>
<td>207</td>
<td>66%</td>
<td>350</td>
<td>11%</td>
</tr>
<tr>
<td>340</td>
<td>Hazard Disclosure</td>
<td>81</td>
<td>10</td>
<td>12%</td>
<td>80</td>
<td>-1%</td>
</tr>
<tr>
<td>350</td>
<td>Flood Protection Information</td>
<td>102</td>
<td>83</td>
<td>81%</td>
<td>125</td>
<td>23%</td>
</tr>
<tr>
<td>360</td>
<td>Flood Protection Assistance</td>
<td>71</td>
<td>54</td>
<td>76%</td>
<td>110</td>
<td>55%</td>
</tr>
<tr>
<td>370</td>
<td>Flood Insurance Promotion</td>
<td>65</td>
<td>0</td>
<td>0%</td>
<td>110</td>
<td>69%</td>
</tr>
<tr>
<td>410</td>
<td>Floodplain Mapping</td>
<td>1346</td>
<td>10</td>
<td>1%</td>
<td>802</td>
<td>-40%</td>
</tr>
<tr>
<td>420</td>
<td>Open Space Preservation</td>
<td>900</td>
<td>160</td>
<td>18%</td>
<td>2020</td>
<td>124%</td>
</tr>
<tr>
<td>430</td>
<td>Higher Regulatory Standards</td>
<td>2740</td>
<td>201</td>
<td>7%</td>
<td>2042</td>
<td>-25%</td>
</tr>
<tr>
<td>440</td>
<td>Flood Data Maintenance</td>
<td>239</td>
<td>56</td>
<td>23%</td>
<td>222</td>
<td>-7%</td>
</tr>
<tr>
<td>450</td>
<td>Stormwater Management</td>
<td>670</td>
<td>15</td>
<td>2%</td>
<td>755</td>
<td>13%</td>
</tr>
</tbody>
</table>
# OPEN SPACE PRESERVATION

- Open Space Preservation (OSP)  
  - 1450 POINTS
- Deed Restrictions (DR)  
  - 50 POINTS
- Natural Functions Open Space (NFSP)  
  - 350 POINTS
- Special Flood-Related Hazard Open Space (SHOS)  
  - 50 POINTS
- Open Space Incentives (OSI)  
  - 250 POINTS
- Low-Density Zoning (LZ)  
  - 600 POINTS
- Natural Shoreline Protection (NSP)  
  - 120 POINTS
## OPEN SPACE PRESERVATION

<table>
<thead>
<tr>
<th>Credit specific to properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Space Preservation (OSP)</td>
</tr>
<tr>
<td>Deed Restrictions (DR)</td>
</tr>
<tr>
<td>Natural Functions Open Space (NFSP)</td>
</tr>
<tr>
<td>Special Flood-Related Hazard Open Space (SHOS)</td>
</tr>
<tr>
<td>Open Space Incentives (OSI)</td>
</tr>
<tr>
<td>Low-Density Zoning (LZ)</td>
</tr>
<tr>
<td>Natural Shoreline Protection (NSP)</td>
</tr>
</tbody>
</table>
Total Site
6 Acres

Area in SFHA
3 Acres
Total Site
6 Acres

Area in SFHA
3 Acres

Impervious Area in SFHA
0.75 Acres

OSP Eligible
2.25 Acres
Total Site
6 Acres

Area in SFHA
3 Acres

Impervious Area in SFHA
0.75 Acres

OSP Eligible
2.25 Acres

Total acreage in SFHA = 100

Acreage of Open Space = 2.25

Ratio of Open Space = 0.0225

(2.25 / 100)

Open Space points for this Site = 32.6

(0.0225 x 1450)
OPEN SPACE PRESERVATION

• TOTAL ACREAGE OF THE CITY
  • 2,046 ACRES

• TOTAL ACREAGE OF SPECIAL FLOOD HAZARD AREA
  • 1,768 (86% OF CITY)
  • AE ZONE, 1,200 ACRES (59%)
  • VE ZONE, 568 ACRES (28%)

• Beach
• Dunes
• Parks
• Coastal Marshlands
• Conservation Easements
• Other

\[
\text{OSP} / \text{SFHA} = \text{OSP}
\]
\[
\text{OSP} \times 1450 = \text{Open Space Points}
\]
## OPEN SPACE PRESERVATION (OSP)

<table>
<thead>
<tr>
<th>Location</th>
<th>αOSP</th>
<th>rOSP = (OSP / αSFHA)</th>
<th>OSP Points (rOSP*1450)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beach</td>
<td>200.1</td>
<td>0.113</td>
<td>164.11</td>
</tr>
<tr>
<td>Dunes</td>
<td>108.6</td>
<td>0.061</td>
<td>89.07</td>
</tr>
<tr>
<td>Memorial Park</td>
<td>7.2</td>
<td>0.004</td>
<td>5.90</td>
</tr>
<tr>
<td>Jaycee Park</td>
<td>9.4</td>
<td>0.005</td>
<td>7.71</td>
</tr>
<tr>
<td><strong>Tybee Lighthouse</strong> *</td>
<td>6</td>
<td>0.003</td>
<td>4.92</td>
</tr>
<tr>
<td>Coastal Marshlands</td>
<td>502.25</td>
<td>0.284</td>
<td>411.92</td>
</tr>
<tr>
<td>4-H Center *</td>
<td>6.31</td>
<td>0.004</td>
<td>5.18</td>
</tr>
<tr>
<td>Buza Property</td>
<td>0.6</td>
<td>0.000</td>
<td>0.49</td>
</tr>
<tr>
<td>Sallie Pearce</td>
<td>7.4</td>
<td>0.004</td>
<td>6.07</td>
</tr>
<tr>
<td>19th Street - Conservation</td>
<td>0.6</td>
<td>0.000</td>
<td>0.49</td>
</tr>
<tr>
<td>Buckley Property - Hwy 80</td>
<td>16.4</td>
<td>0.009</td>
<td>13.45</td>
</tr>
</tbody>
</table>
OPEN SPACE PRESERVATION

Total Site = 11.3 acres
OSP Eligible = 7.2 acres
COASTAL MARSHLANDS / SHORELINE PROTECTION ACT

• GENERAL ASSEMBLY DECLARES THAT COASTAL MARSHLANDS OF GA ARE A VITAL NATURAL RESOURCE SYSTEM

• MARSHLANDS / SHORELINES PROVIDE THE FOLLOWING
  • HABITAT
  • NUTRIENTS
  • BUFFERS AGAINST FLOODING AND EROSION
  • DISSEMINATE POLLUTANTS
  • NATURAL RECREATIONAL RESOURCE
  • ECONOMIC RESOURCE
ONGOING COASTAL INITIATIVES THAT BENEFIT NFIP AND CRS PROGRAMS
OTHER COASTAL RELATED INITIATIVES

COASTAL STORMWATER SUPPLEMENT ELEMENTS
COUNTY HAZARD MITIGATION PLAN
COASTAL GEORGIA FLOOD MAP PROJECT
ONLINE GIS RESOURCES
COASTAL GEORGIA CRS USER GROUP
GENERAL STORMWATER O&M
ED DITOMMASO, AICP GISP
(C) (912) 596-3407
ED@ECOLOGICALPLANNING.NET

Ecological Planning Group, LLC
7 East Congress Street, Suite 801
Savannah, GA 31401
www.ecologicalplanning.net
Making Things Better

How the CRS Helped Myrtle Beach, SC
Timing is Everything

- We joined the CRS program in 1991
  - Myrtle Beach – still recovering from Hurricane Hugo in 1989
  - South Carolina was pushing municipalities to pass Beach Management Plans
  - Developers were pushing to keep regulations lax, even after having to rebuild
CRS Had Our Back

• Freeboard to the max (3 ft, or 300 points) plus other smaller items gave us a quick extra 5%
• Public outreach pushed us to advertise our good ideas
• Open space credits rewarded us for good deeds in place, and helped firm up the idea of keeping the spaces open
We Had to Work Together for CRS

- Collaboration between departments became vital
  - Public Works/Stormwater (NPDES tie-ins)
  - Construction Services
  - Planning
  - Public Information
  - Cultural & Leisure Services (Parks)
  - Police/Fire/Risk Management
  - Administration
Team CRS

• **Now:** Floodplain Management/Hazard Mitigation plan update meetings often include CRS point discussions, projects

• **Now:** Elected officials have pride in the rating and pay attention when potential regulations may impact the rating
  – No one wants to be “that guy” that made everyone pay 25% more insurance premiums
Results

- Citizens with floodplain policies in the city limits save over $1 million annually due to programs – that’s money that stays in our community.
CRS – Just Do It!

Allison Hardin, CFM
Planner
City of Myrtle Beach
PO Box 2468
Myrtle Beach, SC 29578
843.918.1059
ahardin@cityofmyrtlebeach.com
http://www.cityofmyrtlebeach.com/flood.html
<table>
<thead>
<tr>
<th>CRS Class</th>
<th>TOTAL</th>
<th>SFHA *</th>
<th>X-STD/AR/A99 **</th>
<th>PRP ***</th>
</tr>
</thead>
<tbody>
<tr>
<td>09</td>
<td>$24,039</td>
<td>$9,302</td>
<td>$3,457</td>
<td>$11,280</td>
</tr>
<tr>
<td>08</td>
<td>$14,112,971</td>
<td>$7,539,326</td>
<td>$1,847,684</td>
<td>$4,725,961</td>
</tr>
<tr>
<td>07</td>
<td>$587</td>
<td>$811</td>
<td>$534</td>
<td>$419</td>
</tr>
</tbody>
</table>

*** Preferred Risk Policies are not eligible for CRS Premium Discounts.