Monroe County Community Rating System (CRS)

Lori Lehr, CFM Consultant
History of CRS Program in Monroe County

• 2015 – Letter of Good Standing after 6 audits with over 300 findings
• 2016 – County submitted CRS application for Class 6 – (20% Annual Savings)
• 2017 – County submitted CRS application for Class 5 – (25% Annual Savings)
• 2017 – County began effort to apply for Class 4 – (30% Annual Savings)
  • Components needed:
    ✓ Sea Level Rise Modeling of Drainage Infrastructure – August 2019
    ✓ Drainage Maintenance Plan – November 2019 (Pending ISO Review)
  • Repetitive Loss Area Analysis – BEING PRESENTED TODAY
# History of CRS Participation and Discount

<table>
<thead>
<tr>
<th>Year</th>
<th>CRS Class/%Discount</th>
<th>Avg Savings per NFIP Policy</th>
<th>Total Savings</th>
<th>Cumulative Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/1/2016 - 9/30/2017</td>
<td>Class 6/20%</td>
<td>$233</td>
<td>$3,629,670</td>
<td>$3,629,670</td>
</tr>
<tr>
<td>10/1/2017- 9/30/2018</td>
<td>Class 5/25%</td>
<td>$350</td>
<td>$5,135,345</td>
<td>$8,765,015</td>
</tr>
<tr>
<td>*10/1/2019-9/30/2020</td>
<td>Class 5/25%</td>
<td>$373</td>
<td>$5,317,202</td>
<td>$19,217,562</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td></td>
<td>$19,217,562</td>
</tr>
</tbody>
</table>

**Goal**

| CRS Class 4 Effective Date 10/2/2020-10/1/2021 | $448 | $6,376,373 | $25,593,935 |

Grand Total: $19,217,562
RENEWAL FLOOD INSURANCE POLICY DECLARATIONS

PREMIUM CALCULATION — Pre-FIRM Subsidized

<table>
<thead>
<tr>
<th></th>
<th>COVERAGE</th>
<th>DEDUCTIBLE</th>
<th>BASIC COVERAGE</th>
<th>BASIC RATE</th>
<th>ADD’L COVERAGE</th>
<th>ADD’L RATE</th>
<th>DED. DISCOUNT/SURCHARGE</th>
<th>PREMIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUILDING</td>
<td>$250,000</td>
<td>$2,000</td>
<td>$60,000</td>
<td>2.390</td>
<td>$190,000</td>
<td>2.440</td>
<td>$0.00</td>
<td>$6,070.00</td>
</tr>
<tr>
<td>CONTENTS</td>
<td>$34,300</td>
<td>$2,000</td>
<td>$25,000</td>
<td>3.050</td>
<td>$9,300</td>
<td>4.390</td>
<td>$0.00</td>
<td>$1,171.00</td>
</tr>
</tbody>
</table>

Coverage limitations may apply. See your policy form for details.

NFIP Policy Number:
Company Policy Number
Agent:
Policy Term: 08/31/2019 12:01 AM through 08/31/2020 12:01 AM
Renewal Billing Payor: INSURED
To report a claim visit or call us at: https://my.nfipdirect.fema.gov (800) 767-4341

ANNUAL SUBTOTAL: $7,241.00
SRL PREMIUM: 5% $362.00
INCREASED COST OF COMPLIANCE: $49.00
COMMUNITY RATING DISCOUNT: 25% ($1,913.00)

RESERVE FUND ASSESSMENT: 15.0% $861.00
PROBATION SURCHARGE: $0.00

ANNUAL PREMIUM: $6,602.00
HFIAA SURCHARGE: $25.00
FEDERAL POLICY SERVICE FEE: $50.00

TOTAL: $6,675.00
A Stock Company
P.O. Box 33003
St. Petersburg, FL 33733-8003
Customer Service: 1-800-820-3242
Claims: 1-800-725-9472

FLOOD DECLARATIONS PAGE

Coverage | Deductible | Annual Premium
---|---|---
BUILDING | $2,000 | $1,912.00
CONTENTS | $2,000 | $314.00

ANNUAL SUBTOTAL: $2,226.00
DEDUCTIBLE DISCOUNT/SURCHARGE: $0.00
ICC PREMIUM: $56.00
COMMUNITY RATING DISCOUNT: SUB- - $571.00
TOTAL: $1,711.00

RESERVE FUND ASSESSMENT: $257.00
PROBATION SURCHARGE: $0.00
FEDERAL POLICY SERVICE FEE: $50.00
HFIAA SURCHARGE: $25.00

TOTAL WRITTEN PREMIUM AND FEES: $2,043.00

THIS IS NOT A BILL

DEAR MORTGAGEE

The Reform Act of 1994 requires you to notify the WYO company for this policy within 60 days of any changes in the servicer of this loan.

The above message applies only when there is a mortgagee on the insured location.

Premium Paid by: First Mortgagee
**Class 4 Prerequisites:** To become a Class 4 or better community, a community must demonstrate that it has programs that minimize flood losses, minimize increases in future flooding, protect natural floodplain functions, and protect people from the dangers of flooding.

<table>
<thead>
<tr>
<th>Class 4 Prerequisites</th>
<th>MOCO</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enough points to warrant the Class (3,000+)</td>
<td>2,850</td>
<td></td>
</tr>
<tr>
<td>BCEGS of 4/4 or better</td>
<td>4/4</td>
<td>X</td>
</tr>
</tbody>
</table>

**Activity 430 Higher Regulatory Standards**

<table>
<thead>
<tr>
<th>Activity 430 Higher Regulatory Standards</th>
<th>MOCO</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>1ft Freeboard throughout the SFHA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 700 points 430 Higher Regulatory Standards and 420 Open Space Preservation</td>
<td>873</td>
<td>X</td>
</tr>
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</table>

**Activity 450 Watershed Master Plan (WMP)**

<table>
<thead>
<tr>
<th>Activity 450 Watershed Master Plan (WMP)</th>
<th>MOCO</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopt a Watershed Master Plan to evaluate impacts of SLR NOAA “Intermediate-high” for year 2100 (Agenda Item #5635)</td>
<td>90</td>
<td>X</td>
</tr>
<tr>
<td>90 pts. for meeting all WMP prerequisites</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 pts. evaluating all storms up to and including 100-yr. event</td>
<td>20</td>
<td>X</td>
</tr>
</tbody>
</table>

**Activity 510 Floodplain Management Plan (FMP)**

<table>
<thead>
<tr>
<th>Activity 510 Floodplain Management Plan (FMP)</th>
<th>MOCO</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopt a Floodplain Management Plan (382)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥ 50% of the maximum credit under Activity 510</td>
<td>290</td>
<td></td>
</tr>
</tbody>
</table>

**Natural Floodplain Functions**

<table>
<thead>
<tr>
<th>Natural Floodplain Functions</th>
<th>MOCO</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least 100 pts.</td>
<td>290</td>
<td>X</td>
</tr>
</tbody>
</table>

**Life Safety Measures**

<table>
<thead>
<tr>
<th>Life Safety Measures</th>
<th>MOCO</th>
<th>Met</th>
</tr>
</thead>
<tbody>
<tr>
<td>610 – obtain some credit under this Activity</td>
<td>365</td>
<td>X</td>
</tr>
<tr>
<td>CRS Activities</td>
<td>Points</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td><strong>Activity 370 Flood Insurance Promotion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flood Insurance Coverage Improvement Plan (complete)</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td><strong>Activity 450 Watershed Master Plan (WMP) (Adopted August 2019)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adopt a Watershed Master Plan to evaluate impacts of SLR NOAA “Intermediate-</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>high” for year 2100 (Complete)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluating all storms up to and including 100-yr. event (complete)</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td><strong>Activity 510 Floodplain Management Plan (FMP)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repetitive Loss Area Analysis (RLAA)</td>
<td>140</td>
<td></td>
</tr>
<tr>
<td><strong>Activity 540 Drainage System Maintenance (Complete Pending ISO Review)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem Site Maintenance (PSM)</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Capital Improvement Program for Drainage Projects (CIP)</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td><strong>Additional Proposed Credit</strong></td>
<td>420</td>
<td></td>
</tr>
<tr>
<td><strong>Current CRS Credit</strong></td>
<td>2,850</td>
<td></td>
</tr>
<tr>
<td><strong>CRS Class 4 Proposed Credit (3,000 for Class 4)</strong></td>
<td>3,270</td>
<td></td>
</tr>
</tbody>
</table>
Repetitive loss areas were defined using the National Flood Insurance Program (NFIP) claim data

✓ **Step 1**: NFIP designated repetitive loss properties and severe repetitive loss property claim data was analyzed and it was determined that 5 major storm events caused 97% of the claims. The repetitive loss and sever properties for the 5 storms were plotted on a map.

<table>
<thead>
<tr>
<th>Name</th>
<th>Landfall</th>
<th>Category¹</th>
<th>Paid Claims²</th>
<th>$ Claims²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georges</td>
<td>Sept. 1998</td>
<td>3</td>
<td>3,055</td>
<td>$37,066,289</td>
</tr>
<tr>
<td>Mitch</td>
<td>Nov. 1998</td>
<td>Trop. Storm</td>
<td>41</td>
<td>$244,287</td>
</tr>
<tr>
<td>Irene</td>
<td>Oct. 1999</td>
<td>1</td>
<td>396</td>
<td>$3,859,108</td>
</tr>
<tr>
<td>Rita</td>
<td>Sept. 2005</td>
<td>2</td>
<td>171</td>
<td>$4,074,089</td>
</tr>
<tr>
<td>Wilma</td>
<td>Oct. 2005</td>
<td>3</td>
<td>4,070</td>
<td>$123,466,400</td>
</tr>
<tr>
<td>Irma</td>
<td>Sept. 2017</td>
<td>4</td>
<td>3,163</td>
<td>$110,714,342</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td></td>
<td>10,896</td>
<td><strong>$279,424,515</strong></td>
</tr>
</tbody>
</table>

1. Category is the category on the Saffir-Simpson Hurricane Scale when the storm hit Monroe County.
2. Claims figures are for all of unincorporated Monroe County, not just the repetitive loss areas.
Repetitive loss property: a property that has had two or more claims of more than $1,000 paid by the National Flood Insurance Program within any 10-year period since 1978. Although some of these properties have had mitigation measures applied to them, most remain at risk of flooding.---CRS Coordinator’s Manual, p. 120-7

Number of repetitive loss properties in Monroe County: 370 parcels/391 structures

Severe Repetitive Loss property: As defined in the Flood Insurance Reform Act of 2004, those 1–4 family properties that have had four or more claims of more than $5,000 or two to three claims that cumulatively exceed the building’s value. For the purposes of the CRS, non-residential buildings that meet the same criteria as for 1–4 family properties are considered Severe Repetitive Loss properties.---CRS Coordinator’s Manual, p. 120-8

Number of severe repetitive loss properties in Monroe County: 7

Historic Loss Property: a property that has made a single NFIP claim since 1978.

Number of historic loss properties in Monroe County: 2,374

Similarly situated property: a property that is likely to be subject to flooding under the same flooding conditions as the repetitive loss properties in the surrounding area.

Number of similarly situated properties in Monroe County: 6,799

Total number of properties in the 60 repetitive loss areas: 9,543
Repetitive Loss Areas Defined for Analysis

✔ **Step 2**: NFIP historical claim data was analyzed and the results were similar to the repetitive loss data, with the majority of claims also associated with the same 5 storm events. The properties which made NFIP claims associated with the 5 major storm events were also plotted with the repetitive loss and severe repetitive loss properties.

✔ **Step 3**: Neighboring properties that were subject to the same flooding conditions as those that had made NFIP claims were plotted on the same map.

✔ **Step 4**: A line was drawn around all three categories of plotted properties to form the **60 repetitive loss areas**.
  - Repetitive loss and severe repetitive loss properties
  - NFIP claim properties
  - Neighboring properties with same flooding conditions

Note: Irma made landfall in September of 2017, producing $110,714,342 in claims. There were more than 10 years between Wilma and Irma, “no additional repetitive loss properties” or areas were added to the analysis post-Irma.
The analysis was prepared following a standard five step planning process that meet the CRS credit criteria.

✓ Step 1: Advise all properties in the repetitive loss areas that an analysis would be conducted and request input on local flooding.

✓ Letter was sent to each property in the repetitive loss area during the summer of 2017. A brochure was sent again in the summer of 2019.

✓ Step 2: Contact agencies or organization that may have plans or studies that could affect the causes or impacts of flooding.

✓ The following offices were contacted:
  - Monroe County Disaster Recovery Department
  - Monroe County Engineering, Roads & Bridges Department
  - Monroe County Land Authority
  - Monroe County Planning and Environmental Resources Department
  - Monroe County Sustainability & Projects Department
  - Florida Department of Economic Opportunity
Step 3: Visit each building in the repetitive loss and collect basic data. The data collected must include information on the cause of repetitive flooding and potential mitigation measures that would be appropriate.

Field work and data collection began in the summer of 2017. Data collection was paused in September of 2017 due to Irma. The effort was completed in 2019.

Dates of construction and structure use data were collected from the Monroe County Property Appraisers.

Step 4: Review data and mitigation alternatives and determine whether any property protection measures or drainage improvements are feasible.

Both structural and non structural building mitigation measures were reviewed and the details are included in Chapter 3 of the analysis. A building mitigation matrix is included in the analysis to help property owner determine what mitigation may be appropriate for their structure.
✓ Step 5: Document the finding of the analysis.

✓ All information and the repetitive loss area maps are included within the Repetitive Loss Area Analysis.
### Area 16 Data Summary

<table>
<thead>
<tr>
<th>Type</th>
<th>Insurance</th>
<th>Use</th>
<th>Occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repetitive loss</td>
<td>Claims submitted</td>
<td>Residential</td>
<td>111</td>
</tr>
<tr>
<td>Other claims</td>
<td>Total payments</td>
<td>Commercial</td>
<td>3</td>
</tr>
<tr>
<td>Similarly situated</td>
<td>Average payment</td>
<td>Institutional</td>
<td>1</td>
</tr>
<tr>
<td>No data</td>
<td>No data</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total buildings</td>
<td>115</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stories</th>
<th>Foundation</th>
<th>Elevated Floors</th>
<th>Walls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Piers, posts, etc.</td>
<td>&lt; 8 feet</td>
<td>Concrete</td>
</tr>
<tr>
<td>2</td>
<td>Enclosed walls</td>
<td>8-12 feet</td>
<td>Wood frame</td>
</tr>
<tr>
<td>3</td>
<td>Crawlspace</td>
<td>&gt; 12+ feet</td>
<td>Masonry</td>
</tr>
<tr>
<td>4</td>
<td>Slab-on-grade</td>
<td>Modular housing</td>
<td></td>
</tr>
<tr>
<td>No data</td>
<td>Other</td>
<td>Manufact. home</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No data</td>
<td>Other</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No data</td>
<td></td>
</tr>
</tbody>
</table>

See page A-1 for more information on these entries.
FEMA’s Repetitive Loss List contains 391 properties.  
21 addresses on the list are on properties with multiple buildings residing under one Monroe County parcel ID.  
The information provided by FEMA is not sufficient to determine the specific buildings that are considered to the repetitive loss buildings.
Potential Mitigation Measures Structural

Beach Structures

Advantages of beach structures:
• The structures can collect sand in front of the building(s) to be protected, if there is a natural or artificial source of sand up current.

Disadvantages of beach structures:
• These structures keep sand from flowing naturally along the shoreline.
• These structures can adversely impact natural functions and essential habitat, especially for sea turtles and birds.
• These structures require continual expenditures for maintenance

Regulatory considerations on beach structures:
• Policy 102.7.3 reads: “Shoreline hardening structures, including seawalls, bulkheads, groins, rip-rap, etc., shall not be permitted along shorelines of CBRS units.”
• Policy 212.5.1 states: “No new bulkheads, seawalls or other hardened vertical shoreline structures shall be permitted on open water (unaltered shorelines).”
• Policy 212.5.4 states: “Shoreline structures shall be designed to protect tidal flushing and circulation patterns. Any project which may produce changes in circulation patterns shall be approved only after sufficient hydrographic information is available to allow an accurate evaluation of the possible impacts of the project.”
**Seawalls**

**Advantages of seawalls:**
- The area behind the seawall is protected from smaller storms.

**Disadvantages of seawalls:**
- As with jetties and groins, seawalls can transfer the problem to the adjacent areas that do not have a seawall ("flanking erosion").
  - Can impact neighboring properties.
- Seawalls can be expensive.
- Seawalls, especially vertical walls, aggravate beach erosion. Waves that hit the seawalls take sand with them when they wash back.
- Property owners want to cut down mangroves to install seawalls, adversely impacting natural functions and essential habit and destroying the protection provided by mangrove stands.
  - Mangroves can reduce erosion.

**Regulatory considerations on seawalls:**
- Most seawall designs will create an obstruction to flow and would be prohibited in V Zones.
- Policy 210.1.6 reads "Seawalls shall be prohibited on any beach or open water (unaltered) shoreline."
Beach Nourishment

Advantages of beach nourishment:
• The protection provided by the beach is increased.
• Restores habitat for turtles and other threatened and endangered species that live or nest on beaches.

Disadvantages of beach nourishment:
• There are few places in the County with beaches protecting structures. Most beaches are in public parks or natural areas.
• Beach nourishment can be very expensive.
• Nourishment is a temporary solution.
• Nourishment projects can send people the message that areas behind beaches will always be protected.
• Nourishment projects are generally disruptive to beach life for some period.

Regulatory considerations on beach nourishment:
• Each project gets approval from several state and federal agencies to ensure that the project will not have adverse impacts.
Natural Resource Protection

Advantages of natural resource protection:
• These activities are funded and administered by different offices, extending the number of programs that benefit floodprone properties.
• The resulting open space has little to no development to be damaged by a flood.
• The resulting open space provides a natural buffer from water and waves.
• The resulting open space maintains sensitive lands for habitat and may provide for natural flood-defense measures.

Disadvantages of natural resource protection:
• Many of the natural areas to protect are not developed so there may be minimal benefits to floodprone buildings.

Regulatory considerations on natural resource protection
• Restrictions would generally be to limited adverse impacts on natural functions, such as critical habitat. For example, the area could not be graded to build a seawall or other flood protection measure.
Drainage Improvements

Advantages of drainage improvements:
• Drainage improvements reduce nuisance flooding and help keep roads open during high water.

Disadvantages of drainage improvements:
• County projects address flooding on roads and County property. Private property owners need to fund projects on their own property.
• The current projects planned by the County may not be large enough to affect larger flows that flood buildings.
• If not designed correctly, higher roads can act as dams that block drainage and keep water on properties.

Regulatory considerations on drainage improvements:
• All construction that affects the ground surface in the Special Flood Hazard Area (SFHA) is considered development and needs a floodplain development permit. The applicant needs to be sure that the project will not redirect or increase flows onto neighboring properties.
Acquisition

Advantages of acquisition:
• Acquisition is the best way to avoid building damage: remove the building from harm’s way.
• Depending on the funding source, the land can be reused for a public benefit, such as a park, habitat, stormwater basin, or drainage improvements.
• Creates more open space that may handle flood waters or restore vegetation as a buffer.

Disadvantages of acquisition:
• Acquisition at fair market value can be very expensive. Acquisition is not usually done without outside funding. This adds time and work to the process.
• There may be unwilling sellers, and a project could result in a checkerboard pattern of empty lots next to lots with buildings.
• Increased maintenance of acquired properties.

Regulatory considerations on acquisition:
• There are no restrictions on removing a building from a hazard area.
Potential Non-Structural Mitigation Measures

Elevation

Advantages of elevation:
- Best protection for a building.
- Elevation will bring a substantially damaged structure up to code requirements.
- Elevation can reduce flood insurance premiums for buildings in the SFHA.
- Eligible for most mitigation grants (provided the lowest floor is elevated at least two feet above the base flood elevation).

Disadvantages of elevation:
- Projects can be very expensive, especially for slab foundations.
- The area below the elevated floor must remain floodable.
- Owners may resist because the appearance of the structure will change or they have trouble with stairs.

Regulatory considerations on elevation projects:
- The project should meet all regulatory requirements for a new elevated building in the SFHA.
- Enclosed areas below elevated buildings are limited to 299 square feet.
- There are height restrictions on the height of the peak of the roof.
- There may be issue with meeting setback requirements with additions of stairs, landings and utilities.
Mitigation Reconstruction

Advantages of mitigation reconstruction:
• Provides the best protection, short of removing the building from the flood hazard area.
• Will replace a substantially damaged structure for one that meets code requirements.
• Will reduce flood insurance premiums for buildings in the SFHA.
• Eligible for most mitigation grants, including Rebuild Florida.

Disadvantages of mitigation reconstruction:
• Can be expensive. It may be difficult for the owner of a dilapidated building to afford a new residence.
• The cost of construction in the County is well above average, reducing the number of people who can afford this measure.

Regulatory considerations on mitigation reconstruction:
• The new building would have to meet all code requirements for a new building.
### Barriers

**Advantages of barriers:**
- Floodwalls or berms have lower costs.
- No need to alter or modify the building.

**Disadvantages of barriers:**
- Will not fit on small lots with no room to set the barrier back from the property line.
- If human intervention is needed, there needs to be someone available on short notice to close openings, etc.
- Inspections and maintenance needed to fix holes or cracks that may develop over time.
- If overtopped, the flood damage will be the same as if there was no mitigation measure.
- Will not bring a substantially damaged structure up to code requirements.
- Does not reduce flood insurance premiums.
- Not eligible for most mitigation grants.

**Regulatory considerations on barriers:**
- The Florida Building Code prohibits diverting water onto someone else’s land.
- Solid walls and filling projects of a size large enough to control flooding are not allowed in V Zones.
- As structures, barriers would need to meet setbacks and open space and clearing allowances.
- No filling is permitted in mangroves, wetlands or submerged lands.
Potential Non-Structural Mitigation Measures

Dry Floodproofing

Advantages of dry floodproofing:
- Lower cost.
- Does not divert water problems to the neighbors.
- Will bring a substantially damaged nonresidential structure up to code requirements.
- Can reduce flood insurance premiums for a nonresidential structure in the SFHA.
- Eligible for most mitigation grants for nonresidential buildings.

Disadvantages of dry floodproofing:
- Not effective for elevated buildings or buildings with crawlspace.
- If human intervention is needed, there needs to be someone available on short notice to close openings, etc.
- Will not bring a substantially damaged residential structure up to code requirements.
- Does not reduce flood insurance premiums for a residential building.
- Not eligible for most mitigation grants for residential buildings.

Regulatory considerations on dry floodproofing:
- If the building is substantially damaged or the project is a substantial improvement in the SFHA, then this measure is only allowed for nonresidential buildings.
Potential Non-Structural Mitigation Measures

Wet Floodproofing

Advantages of wet floodproofing:
• No matter how little is done, flood damage is reduced.
• Lower cost.
• Does not divert water problems to the neighbors
• Since the building will effectively be an elevated structure, wet floodproofing has the same benefits as elevation, if the elevated floor is at or above the BFE:
  ✓ Will bring a substantially damaged structure up to code requirements.
  ✓ Can reduce flood insurance premiums for a structure in the SFHA.
  ✓ Eligible for most mitigation grants for buildings.

Disadvantages of wet floodproofing:
• Loss of a finished floor. While the area can still be used, there should be no carpeting, furniture, insulation, and other materials subject to water damage that cannot be removed in time.
• If items are kept or stored in the floodable area, there needs to be adequate warning time to remove damageable contents.
• Clean up after the flood is still required.

Regulatory considerations on wet floodproofing:
• Generally there are no permits required for moving things out of a floodable area. Altering the electrical system or installing openings in the building walls may need permits; therefore, check with Building & Permitting for permit requirements for a specific project.
Federal Grants  (Acquisition, Elevation, Reconstruction)

Hazard Mitigation Grant Program: (HMGP) grants are provided to communities following a Presidential Disaster Declaration. They are administered by FEMA. The key purpose of this grant program is to enact mitigation measures that reduce the risk of loss of life and property from future disasters. Grants are typically 75% FEMA and 25% non-Federal.

Flood Mitigation Assistance Grant Program: (FMA) provides funds to assist communities implement measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insured under the National Flood Insurance Program. Applicant properties must be covered by flood insurance because the NFIP funds these grants. Funds are typically made available by FEMA on an annual basis; a disaster declaration is not required.

Pre-Disaster Mitigation: (PDM) provides funds to states and communities for hazard mitigation planning and the implementation of mitigation projects for any natural hazard. As with FMA, PDM follows an annual competitive application process and is not tied to a disaster declaration.
Mitigation Funding

State Funding

**Rebuild Florida:** This is a program of DEO to help Florida’s long-term recovery efforts from Hurricane Irma and Hurricane Michael. The program funds demolition, repair, reconstruction and elevation of primary homes.
- Rebuild Florida has set aside $50 million for this program.

**Voluntary Home Buyout Program:** This is a County-managed program to acquire residential property in high flood-risk areas impacted by Hurricane Irma and supported by funds from CDBG-DR ($15 million). Under this program, the County will purchase properties at the pre-Hurricane Irma fair market value for both the land and the structure.

**Florida Forever:** This program is the State of Florida’s main acquisition program for conservation and recreation lands. It is administered by the Department of Environmental Protection (DEP) which passes appropriated funds to a variety of other state agencies that acquire lands for their programs, such as the Division of Recreation and Parks and the water management districts. Under the Keys Stewardship Bill, DEP purchased vacant conservation land.
Local Programs

**Land Authority Conservation acquisition program:** This is a program to acquire designated natural areas, habitat and habitat buffer areas for threatened or endangered species, sites to build resilient affordable housing, designated V zone properties, areas for recreational facilities, and areas with deteriorated infrastructure where the cost of maintaining and/or repairing the infrastructure exceeds the value of private lands.

**Monroe County Density Reduction Lot acquisition program:** This is a voluntary program to retire development rights for certain properties. The County purchases the property from willing sellers. Purchased lots can be sold, but they come with a deed restriction to prohibit the development of the property with new housing units.

**Monroe County Less Than Fee acquisition program:** This is another voluntary program to retire building rights. The County purchases the right to build a house on vacant property from the adjacent property owners. The owners retain ownership of their vacant property, but they can only use it for legally allowed accessory uses like a swimming pool, open yard or a garage.
<table>
<thead>
<tr>
<th>Eligible Activities by Funding Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Mitigation Grant Program</td>
</tr>
<tr>
<td>- Acquisition of Vacant Land</td>
</tr>
<tr>
<td>- Acquisition of Buildings</td>
</tr>
<tr>
<td>- Elevation</td>
</tr>
<tr>
<td>- Mitigation</td>
</tr>
<tr>
<td>- Reconstruction</td>
</tr>
<tr>
<td>- Barriers</td>
</tr>
<tr>
<td>- Dry Floodproofing</td>
</tr>
<tr>
<td>- Wet Floodproofing</td>
</tr>
<tr>
<td>- Drainage Improvements</td>
</tr>
<tr>
<td>- Less Than Fee acquisition</td>
</tr>
<tr>
<td>- Increase Cost of Compliance</td>
</tr>
<tr>
<td>(1 - Only funds dry floodproofing of nonresidential buildings)</td>
</tr>
</tbody>
</table>
Need Public Input Now

Additional CRS Credit Criteria

- Repetitive loss areas properties must be notified that there is an analysis and where a copy can be reviewed.
  - The brochure to the left will be sent to the Repetitive Loss Areas to meet this credit criteria.
- The plan must be made available to the media and the public.
- The plan must be adopted by the community.
CRS Tasks and Timeline for Class 4

- **Adopt Repetitive Loss Analysis**
  - February 2020

- **Work with ISO to complete CRS Verification**
  - March-June 2020

- **ISO Verification Visit for CRS Class 4**
  - March 2020

- **Draft Verification Report from ISO**
  - August 2020

- **GOAL**
  - CRS Class 4 Effective
  - October 1, 2020

- **30% Discount**
Example Future Discounts for CRS Class 4

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Annual Subtotal</td>
<td>$7,241.00</td>
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<tr>
<td>SRL Premium</td>
<td>$362.00</td>
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<tr>
<td>Increased Cost of Compliance</td>
<td>$49.00</td>
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<tr>
<td>Community Rating Discount</td>
<td>-25%</td>
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<tr>
<td>Reserve Fund Assessment</td>
<td>15.0%</td>
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<tr>
<td>Probation Surcharge</td>
<td>$0.00</td>
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<td>Annual Premium</td>
<td>$6,600.00</td>
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<tr>
<td>HFIAA Surcharge</td>
<td>$25.00</td>
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<tr>
<td>Federal Policy Service Fee</td>
<td>$50.00</td>
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<tr>
<td>Total</td>
<td>$6,675.00</td>
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</table>

Community Rating Discount 30% = $2,296

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Annual Subtotal</td>
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<tr>
<td>Deductible Discount/Surcharge</td>
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<tr>
<td>ICC Premium</td>
<td>$56.00</td>
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<tr>
<td>Community Rating Discount</td>
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<tr>
<td>Reserve Fund Assessment</td>
<td>$257.00</td>
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<td>Probation Surcharge</td>
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<tr>
<td>Federal Policy Service Fee</td>
<td>$50.00</td>
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<tr>
<td>HFIAA Surcharge</td>
<td>$25.00</td>
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<tr>
<td>Total Written Premium and Fees</td>
<td>$2,043.00</td>
</tr>
</tbody>
</table>

Community Rating Discount 30% = $685