

Coastal Flood Resilience Project

WHITE PAPER

Reforming the Community Rating System Within the National Flood Insurance Program 10.1.2021

The *Coastal Flood Resilience Project* is a coalition of organizations working for stronger programs to prepare for coastal storm flooding and rising sea level in the United States. This *White Paper* describes needed reforms to the Community Rating System (CRS) and within the National Flood Insurance Program (NFIP). The *White Paper* responds to a request from [public comment](#) on the CRS by the Federal Emergency Management Agency (FEMA).

Introduction

The NFIP allows local communities to adopt local ordinances to reduce flooding based on FEMA regulations. In communities participating in the Program, property owners are eligible to buy federal flood insurance policies and some property owners, such as those with federally sponsored mortgages, are required to have flood insurance.

Under the CRS, local governments that participate in the NFIP are eligible to take measures, in addition to those minimum measures required by FEMA regulations for NFIP participation, to further strengthen flood resilience. A menu of measures is described in the [CRS Manual](#) and each measure is assigned points that sum to a total score. The total score is used to determine a percentage discount that NFIP policyholders receive on their annual premiums (i.e., up to 40 percent discount).

Although the CRS has encouraged the adoption of flood resilience measures beyond minimally required measures in many communities, the program is not prepared to meet the challenges of a changing climate and needs major reform.

Key recommended changes to the CRS, focused on the coastal flood resilience and sea level rise aspects of the program, are:

- 1. Shift Selected CRS Measures to NFIP Local Ordinances:** To meet the increasing coastal flood risks associated with a changing climate, FEMA should shift key voluntary CRS measures into the local flood management ordinances required for NFIP participation.
- 2. Add New CRS Measures Addressing Sea Level Rise and Relocation:** As CRS measures shift to local ordinances, FEMA should add new measures to the CRS to address more severe storms and rising seas and increase credits associated with existing measures in this area.
- 3. Address Social Justice Challenges in CRS:** Wealthy communities are better able to manage the administrative burdens of the CRS program than are less wealthy communities and costs of premium discounts are paid by policyholders in non-CRS communities. FEMA should propose that Congress pay CRS program costs from direct appropriations outside of the NFIP and significantly increase CRS program assistance to disadvantaged communities.

Background: Coastal Flooding and Sea Level Rise

The Atlantic, Gulf of Mexico, and Pacific coasts are home to over [100 million Americans](#). The population living right along the coast (i.e., at elevations of 33 feet and lower) is expected to [double by 2060](#) to about 44 million. Climate change poses a significant risk to the coast through the combined impacts of more severe storms bringing temporary flooding and permanent inundation by rising seas.

More Severe Coastal Storms: Coastal storms are a major risk to life and property and a warming climate is causing an [increase in the number of the strongest storms](#). These storms bring more extensive coastal flooding, higher storm surges, and increased rainfall. Research indicates that intense storms are [slowing down and thus](#) raining on a given place for longer. Even as storms move more slowly, they [intensifying more rapidly](#), making their landfall harder to predict and more likely to result in major damage and loss of life.

Steadily Rising Sea Level: Sea level rise around the globe is likely to be [3 to 4 feet by 2100](#) but may be as high as 6 to 8 feet if efforts to control emissions of greenhouse gases falter. Sea level rise along parts of the American coast will be as much as [30 percent greater](#) than the global average due to factors such as ocean currents and land subsidence. Unfortunately, past and continuing releases of greenhouse gases will cause sea level to rise long after 2100. The National Oceanic and Atmospheric Administration [projects](#) global mean sea level rise of 10.1 feet by 2150 and 16.7 feet by 2200 under its “intermediate high” scenario.

Impacts of More Severe Storms and Rising Seas on Communities: More severe storms and rising seas will bring economic, environmental, and social disruption to coastal communities on an unprecedented scale.

In the short term, coastal communities can expect more [“sunny day flooding”](#) during high tides and larger surges and greater flooding during storms. In the longer-term, all or parts of [hundreds of coastal communities](#) face far more extensive flooding than they currently experience. The combination of more severe storms and rising seas is projected to result in potential losses of coastal property running into [trillions of dollars](#). These loss estimates, however, are based on the existing population along the coast are likely to rise as population along the coast increases.

Many disadvantaged communities are among those [in harm’s way](#). These communities are [disproportionately affected](#) by climate change including sea level rise, flooding, and extreme coastal weather events, and often lack the resources to respond to these risks. A definition of disadvantaged communities is provided in this [memorandum](#) implementing the Biden administration Justice40 Initiative.

Recommendations

Today, the CRS is not effective in strengthening local flood resilience measures, is not effectively promoting adoption of the measures needed to respond to climate change (i.e., more severe storms and rising sea), and favors wealthy communities and policyholders over others. FEMA should make correcting these problems a top priority and implement the following recommended actions:

- **Problem:** The CRS does not effectively accomplish its goal of strengthening local flood resilience measures.
Recommendation: FEMA should shift flood resilience measures from the CRS menu to be required elements of local ordinances that communities adopt to participate in the program.
- **Problem:** The CRS menu of measures does not effectively promote measures to respond to a changing climate, including more severe storms and rising sea level.
Recommendation: FEMA should revise the CRS to give more credit for existing measures for responding to climate change challenges and add new climate related measures to the menu, including measures to promote relocation to higher ground.
- **Problem:** The cost of premium discounts provided by the CRS are paid by policyholders not participating in the CRS and, because of the high administrative burden of the program, most participating communities are wealthy.

Recommendation: FEMA should address this social justice problem by proposing to Congress that the cost of the CRS be paid from general revenues and expand efforts to help low-income communities participate in the program.

1. Shift Selected CRS Measures to NFIP Local Ordinances

The goal of the CRS is to encourage local communities to adopt flood resilience measures beyond those already required to be included in local flood ordinances adopted as a requirement of participating in the NFIP in exchange for premium discounts for policyholders in the community.

The FEMA regulations specifying the minimum elements of local ordinances were first promulgated in 1976. Since that time, NFIP program losses have increased, especially in communities along the coast, and the costs of major disasters, again associated largely with coastal hurricanes, have increased dramatically. More severe coastal storms and rising sea level mean greater loss of life and increasing property losses, but also increased costs to government in NFIP payments and disaster relief costs. Now more than ever it is in the financial interest of the federal government to support the widespread implementation of local flood resilience measures, especially along the coasts.

The CRS manual presents an impressive array of useful flood reduction measures. Unfortunately, just at the time they are most needed, the implementation of these measures is limited. An [evaluation](#) of the CRS in 2017 found that almost 70 percent of policyholders were in CRS communities, but only 6.5 percent of all NFIP communities participated. In addition, many of these participating communities had adopted only a few of the many optional measures. About half the participating communities had only adopted CRS measures sufficient to be in class 8 or 9 out of 10 (i.e., adopted few measures) and only seven of the nearly 1,500 communities participating had obtained the class 1 ranking that earns the highest, 45 percent premium discount.

Given the now higher and growing fiscal stakes for the federal government, it is critical that FEMA find an effective path to widespread implementation of effective coastal flood resilience measures. Doubling down by increasing premium discounts for voluntary CRS measures is unlikely to have significant benefits and carries unintended consequences (e.g., by reducing flood insurance costs, people may be more likely to move to or remain in risky areas).

A better strategy is for FEMA to amend its regulations to shift some of the voluntary CRS measures to be mandatory elements of local flood ordinances. In general, FEMA should shift both the easier to adopt measures (e.g., information and education) as well as selected measures related to open space preservation (section 420 of the CRS Manual), regulatory measures likely to have the most significant benefits for strengthening flood resilience (section 430, with special attention to preventing fill under 432.a.1.a and prohibiting buildings under 430.a.2), and acquisition and relocation (section 520). This updating and upgrading of local ordinances should be a minimum requirement for continued community participation in the NFIP.

Special consideration should be given to shifting measures related to future flood conditions, such as more severe coastal storms and rising seas. Examples of CRS measures related to sea level rise that should be considered for shifting to become mandatory under local ordinances include:

- credit for using regulatory flood elevations that reflect future conditions, including sea level rise;
- credit in section 322.c for communities that provide information about areas (not mapped on the FIRM) that are predicted to be susceptible to flooding in the future because of climate change or sea level rise;
- credit in section 342.d requiring prospective buyers of a property inquiring about risks be advised of the potential for flooding due to climate changes and/or sea level rise;
- credit in section 412.d when the community's regulatory map is based on future-conditions hydrology, including sea level rise;
- credit is provided in Section 432.k when a community accounts for sea level rise in managing its coastal A Zones;
- credit in section 452.b for a coastal community whose watershed master plan addresses the impact of sea level rise and related conditions; and
- credit provided in Section 512.a, Steps 4 and 5, for flood hazard assessment and problem analysis that address areas likely to flood and flood problems that are likely to get worse in the future, including climate change or sea level rise.

Improvements to local NFIP ordinances should be supported by expanded efforts to improve implementation of the ordinances. There is [evidence](#) of compliance rates in the range of 70 – 85 percent. Although FEMA recommends compliance audits every five years, a 2017 [study](#) found that only 23 percent of communities had been audited over an eight-year period. FEMA should provide financial and technical assistance to disadvantaged communities to help them revise local ordinances.

Finally, a challenge that arises in shifting measures out of the CRS is that the total score for a community will be reduced along with premium discounts. To address this, communities should have the option of adopting other CRS measures from the menu and changes to existing discounts should be deferred for a three-year period to give communities a chance to consider other measures. Note that recommendation #2 below proposes the addition of new measures which increases options for communities wishing to maintain discounts at prior levels.

2. Add New CRS Measures Addressing Sea Level Rise, Managed Retreat and Relocation

FEMA recognizes that rising seas will extend the reach and damage of increasingly severe storms and lead to gradual, permanent inundation of hundreds of communities along the coast.

In response to this challenge, FEMA has already added measures related to sea level rise to the CRS. FEMA should build on this work by:

- giving increased credit for existing CRS measures to address sea level rise;
- strengthen credit for natural infrastructure;
- adding new measures to encourage managed retreat planning and relocation to higher ground; and
- adding measures for preparing to receive people relocating from risky areas.

Community compliance with adopted CRS measures has been [identified as a matter of concern](#) in a study of overall compliance with NFIP standards and FEMA needs to make a concerted effort to assure that CRS credits are earned over time.

A. Increase Credit for Measures to Address Sea Level Rise: The CRS Manual describes measures and the credit or points associated with implementation of each measure. Recommendation #1 in the White Paper proposes shifting many of these credits into mandatory local ordinances. Where a decision is made to retain an activity as a CRS credit rather than a mandatory element of a local ordinance, FEMA should consider increasing the value or points associated with the activity.

FEMA should also publish a guide to the effective and coordinated use of CRS measures to address sea level rise, similar to the [guide](#) published for habitat protection.

- B. Strengthen Credit for Natural Infrastructure:** Protecting natural infrastructure, such as beaches and wetlands, can play a critical role in buffering communities from storm surges and providing temporary protection from rising seas. Low impact development practices, such as a living shoreline, bio-retention systems, pervious pavers, street-side swales, and ground level cisterns can help moderate flooding. These practices will be increasingly important as storms become more severe and sea level rises in the coming decades.

The CRS now provides limited credit for preservation of natural infrastructure and implementation of low impact development practices. FEMA should review opportunities to enhance CRS measures in this area. Special consideration should be given to offering credit for voluntary implementation of natural infrastructure by governments and for voluntary implementation of low impact development practices by citizens. This would encourage communities to engage, educate, and reward individual property owners and encourage a comprehensive approach to floodplain management.

- C. Add or Strengthen Measures to Encourage Managed Retreat and Relocation to Higher Ground:** The CRS currently includes measures related to acquisition of at-risk property and relocation. As sea level rise accelerates in the decades ahead, periodic and temporary storm flooding will be replaced by permanent inundation of large coastal areas. Some of these areas may have the deep financial resources or favorable geography to make building protection structures feasible as a short-term solution. Most coastal areas, however, will need to relocate to higher ground as sea level rises.

There are several constraints on adoption of measures related to relocation. Of course, relocation is seen as a last resort by many people and local governments shy away from proposing these measures. In addition, implementing these voluntary measures has the effect of reducing the number of property owners benefiting from the CRS program because the move out of flood risk areas. With fewer residents to benefit from the CRS program, community officials may be less inclined to invest in maintaining the program.

FEMA should work to overcome this inherent bias against relocation by making several changes to the CRS to further encourage NFIP communities to develop and implement plans to guide property acquisition and relocation. For example, FEMA should develop new CRS measures to give credit for sea level rise adaptation plans that provide for phased acquisition of at-risk property and relocation to higher ground in the same community or another community.

A special concern is that the CRS measures should encourage elevation strategies that rely on naturally high ground or, where necessary, elevation of existing structures or equipment in ways that do not displace floodwater and damage neighboring property. For example, FEMA should affirmatively prohibit “fill and build” policies that simply use fill material to elevate a building site within a risky area causing displacement of floodwaters that damages nearby structures or homes that are not so elevated (e.g.; existing CRS credit for prohibition of fill under section 432.a.1.a should be shifted to mandatory local ordinances and the related compensatory storage provisions (section 432.a.1.b) should be eliminated). FEMA should also strengthen measures related to preservation of open space as a means of limiting new development that will only need to be relocated at a later date.

In the case of existing relocation CRS measures, FEMA should:

- increase the CRS points now provided for community actions to relocate repetitive loss properties and relocation of properties in high-risk coastal zones (section 520);
- amend the Floodplain Management Planning element of the CRS to include a new element, modelled after the existing Repetitive Loss Area Analysis, giving points for addressing property at risk of sea level rise (section 510); and
- amend the Floodplain Management Planning element of the CRS to include a new element giving points for including in a Floodplain Management Plan consideration of places outside of the floodplain where existing homes and buildings in the floodplain should be relocated or where new construction proposed for a floodplain should be relocated.

D. Add Measures for Preparing to Receive People Relocating from Risky Areas: Today, one of the obstacles people face in thinking about moving away from risky coastal areas is uncertainty about where to go. As people and communities gradually relocate from risky coastal areas it is important that there be places prepared for them to call home. These places might be on higher ground within the same community or in a nearby community.

Uncertainty about where to relocate to can be reduced by investing in preparations to welcome people moving to higher ground. Welcoming measures can include:

- a community statement of intent to welcome relocating communities and businesses;
- access to housing, including affordable housing priced similar to homes people are leaving;

- coordinated relocation of businesses and their employees;
- identification of a local government office and official to coordinate relocation and receiving matters;
- adoption of zoning code provisions identifying areas where relocated people and businesses can relocate; and
- relocation of cultural institutions and historic structures.

FEMA should revise the CRS to provide credits to any NFIP participating community that is interested in welcoming people and businesses from risky coastal areas and should add measures for such welcoming actions to the CRS menu with significant credit points.

3. Address Social Justice Challenges of CRS

FEMA is working through [Risk Rating 2.0](#) to revise NFIP premiums over time so that they better reflect risks (i.e., the higher the risk the higher the premium). Basing premiums on risk has the value of sending a clear price signal to the homeowner and generally encouraging people to consider moving to a safer location. As climate change drives flood risks higher, risk-based premiums will increase. A key issue with this policy, however, is that low-income policyholders will increasingly be unable to afford annual premiums and will be pressed to sell to people with higher income, creating a gentrification of the coast.

In addition to promoting local adoption of flood resilience measures, the CRS has the effect of lowering premiums for policyholders in participating communities, wealthy or low-income. So, some low-income people get the benefit of lower rates.

Today, however, the CRS program is “cross-subsidized” so that lower premiums paid by policyholders in CRS communities are offset by higher premiums paid by all other policyholders. The Congressional Research Service [reported](#) that, in 2019, policyholders in non-CRS communities paid an increased cost of 15.3 percent to offset discounts provided to policyholders in CRS communities.

Unfortunately, the communities participating in the CRS tend to be wealthy and have the resources needed to manage the administrative costs of applying for CRS credits. In 2017, [research](#) found that wealthier communities are more likely than less wealthy communities to participate in the optional CRS program and generally earn more CRS points than other communities. A more recent [evaluation of 44 peer reviewed studies of the CRS program](#) concluded:

“Considered together, results indicate that participation in the CRS is greater in places with higher flood risks, population sizes, incomes, owner occupied housing, educational attainment levels, and proportions of senior citizens... Results also demonstrate that CRS participation is lower in places with higher unemployment, poverty, and crime rates and minority populations.”

Under the present approach, policyholders in disadvantaged communities not participating in the CRS suffer the increased risks of flooding due to lack of supplemental flood reduction actions. On top of that, they pay increasing premiums that both account for increasing risk and make up the cost of CRS discounts provided to policyholders in CRS communities, putting them at greater risk of needing to sell their homes. Wealthier communities in the CRS program get CRS program flood mitigation measures and relatively lower premiums due to lower risks that are, in effect subsidized by less wealthy non-CRS community policyholders.

FEMA should take several steps to make the CRS fairer and make broadly available to communities regardless of wealth.

A. Shift CRS Costs to All Taxpayers: Today, the discounted premiums due to the CRS impose a cost increase on policyholders in non-CRS communities of about 15 percent. Any expansion of credit values offered for measure implementation or improved community adoption of measures will increase the subsidy. This policy has the unfair and unacceptable effect of essentially shifting NFIP program costs from policyholders in wealthy communities to policyholders in poorer communities.

To address this problem, FEMA should propose to Congress that the cost to the NFIP of lost premiums due to CRS discounts be funded annually by Congressional appropriations rather than by premiums from policyholders in non-CRS communities. Direct funding by Congress has the advantage of avoiding the “cross-subsidization” that results in poorer policyholders subsidizing wealthy policyholders.

It is also reasonable to use general revenues to fund the CRS because all taxpayers benefit from the adoption of flood resilience measures that have the effect of reducing NFIP program losses (likely to be covered eventually by taxpayers) and reducing significant disaster relief costs. Direct funding of the CRS is a good investment for the federal government as well as an effective policy for reducing the inequities in the current system.

Starting in the third year after adoption of annual appropriations for the CRS, FEMA should report the amount needed to fund CRS premium discounts in the coming year to Congress. Also starting in the third year after adoption of annual

appropriations, premium discounts should be qualified as being available only subject to Congressional appropriation of needed funds. Regardless of the amount eventually appropriated, priority should be given to funding of discounts for policyholders in disadvantaged communities.

Knowing that the annual cost of the CRS discounts will be lower if some measures are shifted from the CRS credit menu to the mandatory local ordinances (see Recommendation #1), Congress may be more inclined to support strengthening local ordinances. In addition, knowing that the full funding of premium discounts is subject to appropriations legislation, CRS communities and policyholders may be more inclined to encourage Congress to fully fund the program. Both these outcomes lead to the wider implementation of flood resilience measures.

- B. Expand Technical and Financial Support for Disadvantaged Communities:** FEMA should provide substantially increased technical and financial support to disadvantaged communities to improve their access to the CRS program, to adopt the most effective flood reduction measures from the CRS menu, and increase the points that translate to greater premium discounts and thus more affordable premiums. As part of this effort, FEMA should support “peer sharing” for communities to learn from one another about the CRS and approaches that similar communities have found to be successful.
- C. Develop Core Package of CRS Measures for Disadvantaged Communities:** FEMA should develop a core package of basic flood reduction actions drawn from the CRS Manual that a disadvantaged community can easily adopt at low or no cost. The core package should result in premium discounts of at least 15 percent. This assistance should also include updates to flood maps and support for implementation of base NFIP community program requirements.
- D. Allow Small Communities to Join CRS as a Group:** One way to reduce the administrative burdens associated with applying for and managing CRS credits is to allow groups of geographically related small communities to participate in the CRS program as a single entity. A coalition of communities could jointly fund staff to manage the program and support other costs. This group approach would also facilitate provision of federal financial and technical assistance.

The *Coastal Flood Resilience Project* is a coalition of organizations working for stronger programs to prepare for coastal storm flooding and rising sea level in the United States. The

views expressed in this *White Paper* are those of the supporters listed below and do not represent the views or endorsement of their organizations.

Supporters of this *White Paper* include:

- Harriet Festing; Anthropocene Alliance
- Rob Moore, Director, Water & Climate Team; Natural Resources Defense Council
- Jeffrey Peterson; author of *A New Coast: Strategies for Responding to Devastating Storms and Rising Seas* and former Deputy Associate Director for Water, White House Council on Environmental Quality
- Susan Ruffo; United Nations Foundation and former Associate Director for Climate Preparedness and Resilience, White House Council on Environmental Quality
- Stefanie Sekich-Quinn; Surfrider Foundation
- Shana Udvardy; Union of Concerned Scientists