

Community Resilience & NFIP's Community Rating system

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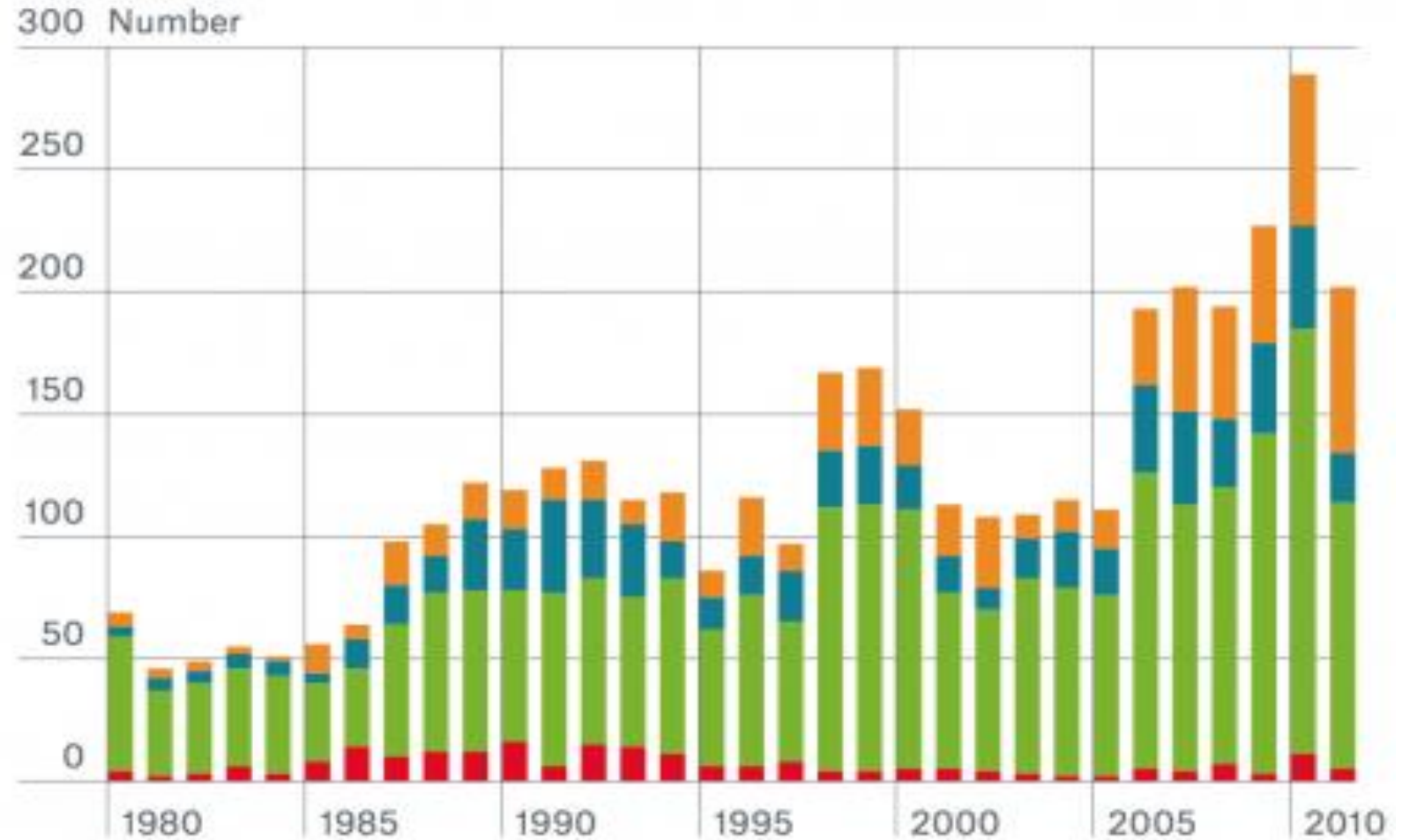
Resilience is a gaining a lot of momentum

The economic impact of natural catastrophes is increasing each year and needs attention !

Natural catastrophes in North America 1980-2011: Number of events

- Geophysical events
- Meteorological events
- Hydrological events
- Climatological events

Source: Munich Re, NatCatSERVICE



Resilience Definition

- Resilience is a long standing concept & several definitions are out there
“ability to” “adapt” “bounce back” “recover” “manage”
- Overall seen as a desirable property of natural and human systems,
including cities and coastal zones (UN/ISDR, 2002)
- General consensus that resilience is multifaceted that can be achieved via
several components (Bureau et. al, 2003, Norris et. al., 2008; Cutter et. al.
2010; NRC, 2010)

How to Measure Resilience?

BRIC Baseline Resilience Indicators for Communities

measure overall pre-existing community resilience evaluating the community's economic, social, institutional, ecosystem, and infrastructure capacities

ResilUS Resilience United States

measures recovery over time of critical infrastructures

NOAA Coastal Resilience Index

help communities predict if they can function well after a disaster in the areas of critical infrastructures, transportation, community plans, mitigation measures, social systems and business plans

No systematic way to measure resilience that captures all the key sectors that contribute to community resilience and for which the data is readily available

Framework for Measuring Resilience

5 Capitals (5Cs)- 4 Resilience Properties (4Rs)

Capital /Properties	Financial	Natural	Human	Physical	Social
Robustness (strength to withstand)	Income/Wealth	Floodplain Conservation	Emergency Plans	Strength of critical infrastructure and housing to withstand shock	Proportion of socially vulnerable population
Rapidity (quickly respond)	Insurance Availability			Multiple communication sources	Evacuation strategies
Redundancy (alternatives availability)	Alternative sources of income			Availability of alternate routes	Availability of housing options for victims
Resourcefulness (capacity to identify priorities)	Funds set aside in case of emergency	Rules and Regulations to limit the use of natural resources	Access to Education	Availability of materials for restoration	Capacity to address the needs of victims

How can Insurance help In this regard?

NFIP's Community Rating System (CRS) as a vehicle to enhance and measure community resilience over time

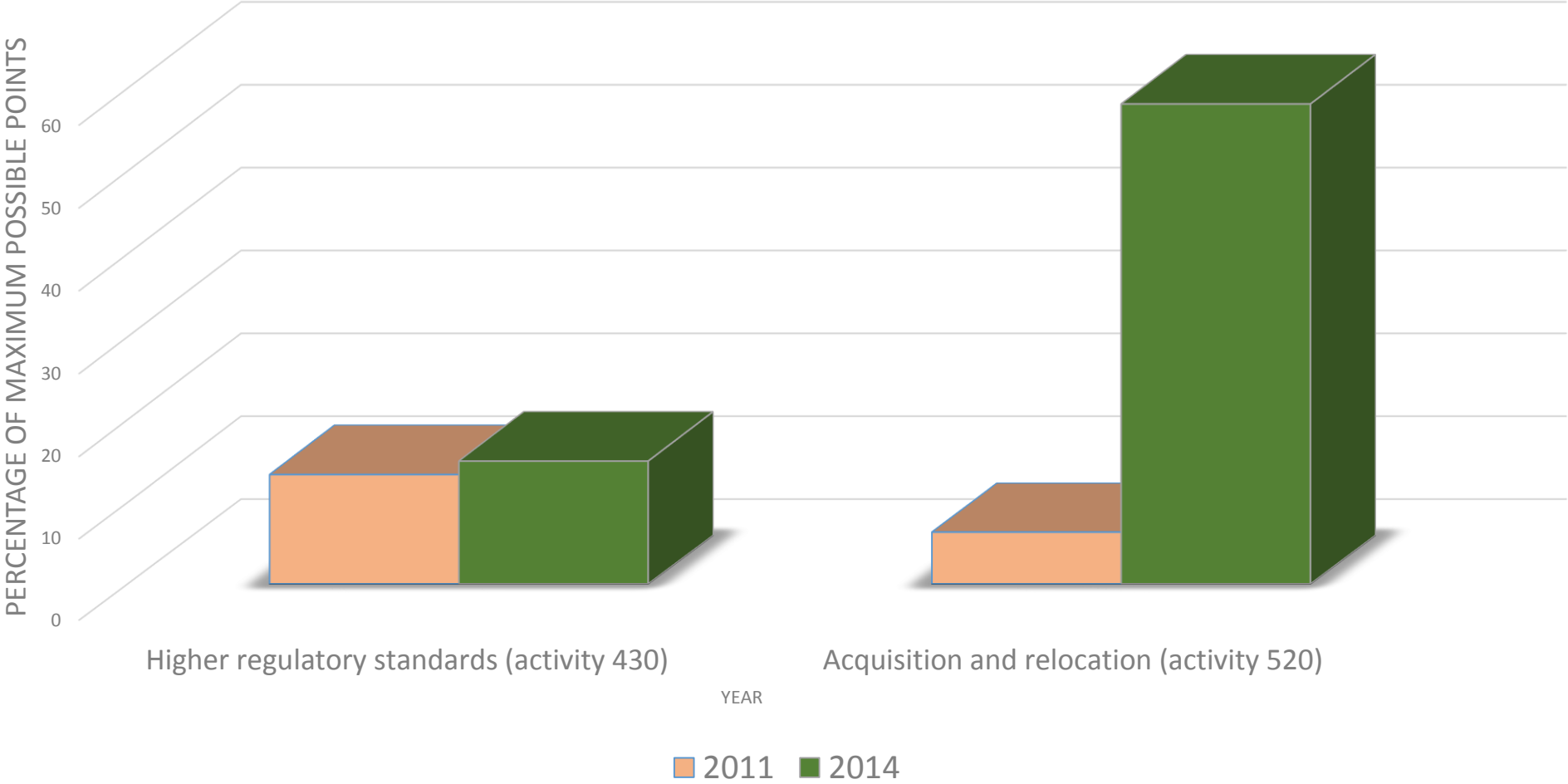
- **Voluntary incentive program** that recognizes and encourages community floodplain management activities through **flood insurance premium rates discounts** to reflect the reduced flood risk
- **19 creditable activities** under 4 series : **Public Information, Mapping and Regulation, Flood Damage Reduction and Warning and Responses**
- A **discount** in insurance premium **of up to 45%** can be achieved for SFHA properties

Linking CRS to the 5C framework : Cedar Rapids, Iowa

- Cedar Rapids Iowa is a class 6 Community
- Earns a 20% discount for policies in SFHA
- Many flood risk reduction activities underway that will bring Cedar Rapids to even higher class in next evaluation

<i>CRS Activities</i>	<i>Credits</i>	<i>Capital</i>	<i>Resilience Properties</i>
Elevation Certificates	48 %	Physical	Robustness
Outreach Projects	11%	Social	Rapidity, Resourcefulness
Hazard Disclosure	18%	Physical	Resourcefulness
Flood Protection Information	12%	Social	Resourcefulness
Floodplain Mapping	8%	Financial	Robustness
Open Space Preservation	11%	Natural	Robustness
Higher Regulatory Standards	14%	Physical	Robustness/Redundancy
Flood Data Maintenance	47%	Human	Resourcefulness
Storm Water Management	10%	Physical	Rapidity
Acquisition and Relocation	58%	Physical/Natural	Robustness

Tracking Resilience over time : Cedar Rapids



Success Stories

Well Enforced Building Codes

Florida

Homes built under the new wind resistant standard that were enforced in 1996, following hurricane Andrew in 1992, had a claim frequency that was sixty percent less than those built prior to 1996.

Buyouts

Tulsa, Oklahoma

A class 2 CRS community has cleared more than 900 buildings from its floodplains with average premium discounts of \$461 for policies in SFHA

Roseville, California

The city voluntarily bought out 273 homes in high risk and converted the majority of floodplain to open space. The city is the one and only class 1 CRS community

Open Space Preservation

King County, WA

A class 2 community has preserved more than 100,000 acres in floodplain open space and receives additional CRS credit for maintaining it in natural state

Colorado Springs, CO

A class 6 community – saving 224,000 on insurance premium annually...



Navigation

Search

Languages

Region VIII

Robert Farmer

> News

2012 North Dakota Flood Insurance Media Kit

2012 South Dakota Flood Insurance Media Kit

Calendar

FEMA Region 8 Private Sector

National Flood Insurance Program Public Service Announcement Script

> About

> 2011 Souris Valley Flood

Community Rating System Brings Rewards for Colorado Springs

Everyone appreciates getting a break on their insurance premiums, especially when the benefit is earned by the policyholder. Such is the case with the City of Colorado Springs, where residents and businesses learned that their flood insurance costs had been reduced through their community's participation in the National Flood Insurance Program's Community Rating System.



John LaBrune (left) and Matthew Buddie (right) of FEMA present Colorado Springs Mayor Stephen Bach (center) with a plaque acknowledging Colorado Springs reaching a Level 6 rating within the Community Rating System.

Recently, John LaBrune and Matt Buddie from FEMA Region VIII's Mitigation Division journeyed to Colorado Springs to present Mayor Steve Bach with a special plaque congratulating the city for its commitment to public safety through its efforts to manage the city's flood risk

The presentation was part of the mayor's January 22 communitywide briefing at the city's Police Operations Building, with more than 100 attending, including local officials, first responders, media and the general public.

As a result of the city's actions, residents and businesses will now receive a 20 percent discount on their flood insurance payments through the program's Community Rating System, amounting to an annual savings of \$224,000—money, as the mayor noted, that remains in the local economy.

COLORADO SPRINGS PROPERTY OWNERS TO GET A BIGGER BREAK ON FLOOD INSURANCE PREMIUMS

COLORADO SPRINGS PROPERTY OWNERS TO GET A BIGGER BREAK ON FLOOD INSURANCE PREMIUMS

20-May-2014

COLORADO SPRINGS, Colo – Colorado Springs property owners will see an even bigger discount on flood insurance premiums thanks to the City receiving an improved score in the National Flood Insurance Program (NFIP) Community Rating System (CRS). The City of Colorado Springs has improved from Class 7 to Class 6, reducing floodplain insurance premiums by 5% within the city limits. The total reduction in flood insurance premiums through the City's voluntary participation in the CRS program is now 20%.

"It's great that FEMA has recognized the efforts that Colorado Springs has been making over the past several years to reduce flood risk in our community," says Keith Curtis, Flood Plain Administrator, Pikes Peak Regional Building Department. "The twenty percent discount is more than welcome at a time when flood insurance rates are on the rise."

The NFIP's Community Rating System is a voluntary incentive program that recognizes communities that exceed the minimum NFIP requirements. Depending on a community's rating on a scale of 1 to 10 (1 being the best), flood insurance premium rates are discounted to reflect the reduced flood risk. A community accrues points to improve its CRS Class rating and receives increasingly higher discounts. Points are awarded for engaging in activities such as public information, mapping

THANK YOU

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CRS: Activities and Credit

- 19 creditable high-level activities, organized under 4 main series

Activities	Maximum Possible Points
<u>300 Public Information Activities</u>	
310- Elevation Certificates	116
320- Map information Services	90
330- Outreach Projects	350
340- Hazard Disclosure	80
350- Flood Protection Information	125
360- Flood Protection Assistance	110
<i>370- Flood Insurance Promotion</i>	110
<u>400 Mapping and Regulations</u>	
410- Floodplain Mapping	802
420- Open Space Preservation	2020
430- Higher Regulatory Standards	2042
440- Flood Data Maintenance	222
450- Storm water management	755

Activities	Maximum Possible Points
<u>500 Flood Damage Reduction Activities</u>	
510- Floodplain Management Planning	622
520- Acquisition and Relocation	2250
530-Flood Protection	1600
540-Drainage System Maintenance	570
<u>600 Warning and Responses</u>	
610-Flood Warning and Response	395
620- Levees	235
630-Dams	160
Total	12,554

CRS : Credits, Classes and Discounts

CRS Class	Credit points	Premium reduction for residences in SFHA (i.e., 100 year floodplain)	Premium reduction for residences outside SFHA	Number of communities benefitting (2011)
1	>4,500	45%	10%	1
2	4,000-4,499	40%	10%	2
3	3,500-3,999	35%	10%	1
4	3,000-3,499	30%	10%	5
5	2,500-2,999	25%	10%	66
6	2,000-2,499	20%	10%	151
7	1,500-1,999	15%	5%	285
8	1,000-1,499	10%	5%	464
9	500-999	5%	5%	217
10 (mostly inactive)	0-499	0	0	

Note - SFHA: Special flood Hazard Areas (high risk of flood)