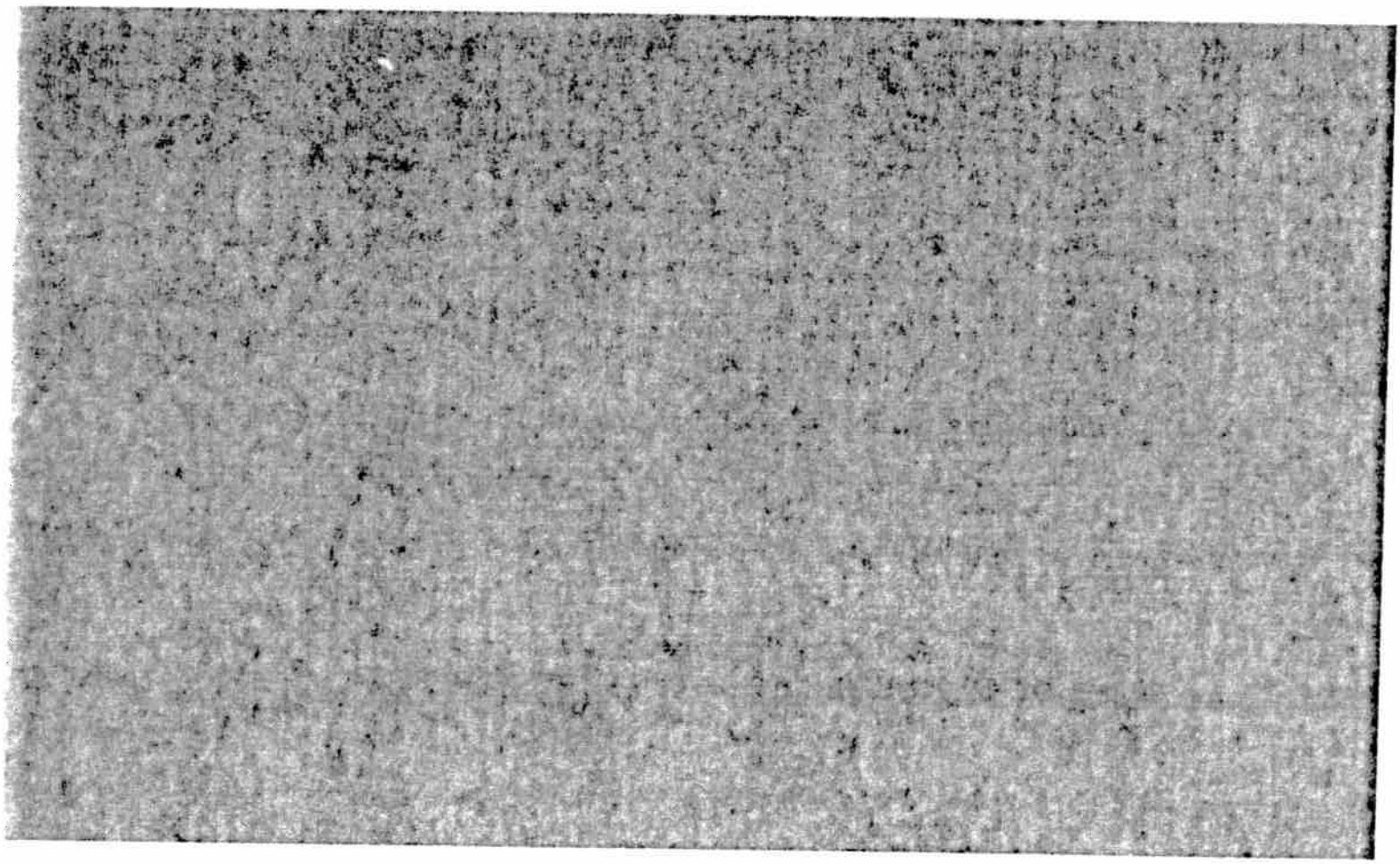
Report to Congress

On the National Flood Insurance Program's - Community Rating System

December 2006

FEMA



National Flood Insurance Program
Community Rating System

Biennial Report to Congress

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Executive Summary

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is administered by the Department of Homeland Security's Federal Emergency Management Agency (FEMA). The CRS was implemented in 1990 to recognize and encourage community floodplain management activities that exceed the minimum NFIP standards. The National Flood Insurance Reform Act of 1994 codified the Community Rating System in the NFIP. Under the CRS, flood insurance premium rates are adjusted to reflect the reduced flood risk resulting from community activities that meet the three goals of the CRS: (1) reduce flood losses; (2) facilitate accurate insurance rating; and (3) promote the awareness of flood insurance.

There are 10 CRS classes: Class 1 requires the most credit points and gives the largest premium reduction; Class 10 receives no premium reduction. The CRS recognizes 18 creditable activities, organized under four categories numbered 300 through 600: Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness.

As of October 1, 2006, there are 1049 communities receiving flood insurance premium discounts based on their implementation of local mitigation, outreach, and educational activities that go well beyond minimum NFIP requirements. Although premium discounts are one of the benefits of participation in the CRS, it is more important that these communities are carrying out activities that save lives and reduce property damage. These 1049 communities represent a significant portion of the nation's flood risk as evidenced by the fact that they account for over 66% of the NFIP's policy base. Communities receiving premium discounts through the CRS cover a full range of sizes from small to large, and a broad mixture of flood risks, including coastal and riverine.

The CRS was developed and implemented with the benefit of advice and effort by federal, state, and local officials; professionals with expertise in floodplain management and insurance; and academics. A multidisciplinary approach led to successful implementation of the program and this same approach has been employed in reviewing and refining the CRS over the last 16 years.

Part 1 of this report provides summary statistics on community participation in the CRS and on the costs of administering the program. Part 2 reviews how the CRS operates and how the program activities have been implemented. Part 3 describes progress toward the four strategic goals that were posed in prior reports.

The major highlights of this report are:

- The 1049 participating CRS communities represent two-thirds of all flood insurance policies.
- Participation in the CRS is well distributed across the country, although it is higher in Florida where policy counts are greater and in those states that are more active leaders in floodplain management.
- In addition to the benefits of the CRS's basic approach of encouraging and crediting floodplain management activities, the CRS also helps reduce disaster losses in a wide variety of ways, such as acting as a model for communities, supporting research into mitigation activities, emphasizing stronger multi-hazard building codes, and encouraging all-hazards planning.

- The program has been steadily growing over the past seven years and CRS communities are improving their floodplain management programs and receiving better CRS classifications in return.
- The first Class 1 ranking earned by any CRS community was awarded to Roseville, California in 2006. This milestone indicates the importance communities place on improving their rating within the CRS, receiving additional flood insurance discounts for their residents, and enhancing their floodplain management programs and thereby reducing risk.
- The costs borne by communities in implementing activities credited under the CRS are justified by the reduction in losses to property and lives in the communities. These benefits accrue to all the residents, whether they have flood insurance or not. The CRS provides two important benefits: national recognition of local flood mitigation efforts, and premium reductions for those prudent enough to purchase flood insurance.

Introduction

This is the sixth biennial Report to Congress on the Federal Emergency Management Agency's (FEMA's) Community Rating System. It is submitted pursuant to Section 541(4) of the National Flood Insurance Reform Act of 1994 (the Riegle Community Development & Regulatory Improvement Act of 1994).

This biennial report reviews the main activities of the past two years, how the program has made refinements to the creditable activities and points, and how the program has fared in its efforts to accomplish its strategic goals. The report is in three parts:

Part 1 provides a summary of the CRS, its history, current statistics on community participation, and the costs and benefits of the program.

Part 2 addresses management issues, including routine operational activities and how the scoring system is monitored and improved.

Part 3 looks at progress toward four strategic goals:

- Support FEMA's pre-disaster mitigation emphases.
- Encourage CRS communities to improve their classes.
- Encourage the communities not in the CRS to join.
- Encourage an all-hazards planning approach.

More details on the topics covered here are available from FEMA. Most of the publications referenced can be found at the Community Rating System Resource Center on FEMA's website, http://training.fema.gov/emiweb/CRS/index.htm.

Part 1. CRS Facts and Figures

How the CRS Works

Communities that regulate new development in their floodplains are able to join the National Flood Insurance Program (NFIP). In return, the NFIP provides federally backed flood insurance for properties in participating communities. Today 20,100 communities are in the NFIP and there are over 5.3 million policies in effect.

The Community Rating System (CRS) is a part of the NFIP. The CRS reduces flood insurance premiums to reflect what a community does above and beyond the NFIP's minimum standards for floodplain regulation. The objective of the CRS is to reward communities for what they are doing, as well as to provide an incentive for new flood protection activities.

In order to recognize community floodplain management activities in this insurance rating system, those activities must be described, measured, and evaluated. A community receives a CRS classification based upon the credit points it receives for its activities. The criteria for CRS classification, the application procedures, and the credit points and calculations used to determine and verify CRS credit are all contained in the *CRS Coordinator's Manual.*

Classification. There are ten CRS classes: Class 1 requires the most credit points and gives the largest premium reduction; Class 10 receives no premium reduction (see table). A community that does not apply for the CRS or that does not obtain the minimum number of credit points is a Class 10 community.

Community Rating System Premium Discounts

	Premium Discount	
Class	SFHA*	Non-SFHA
1	45%	10%
2	40%	10%
3	35%	10%
4	30%	10%
5	25%	10%
6	20%	10%
7	15%	5%
8	10%	5%
9	5%	5%
10	0	0

* Special Flood Hazard Area. Non-SFHA premium reductions apply to B, C, D, X, A99, and AR Zones.

Community application for the CRS is voluntary. Any community that is in full compliance with the rules and regulations of the NFIP may apply for a CRS classification better than Class 10. The applicant community submits documentation that it is doing activities recognized under the CRS.

A community's CRS classification is assigned on the basis of a field verification of the activities described in its application.

Activities Credited. The CRS recognizes 18 creditable activities, organized under four categories numbered 300 through 600 (see table, next page). The credit points are based upon how well an activity meets the goals of the CRS. Formulas and adjustment factors are used to calculate credit points for each activity.

Communities that are affected by one or more of seven special hazards, such as coastal erosion, tsunamis, or ice jams, have the opportunity to earn additional credit under several activities. These credit criteria are explained in separate publications for these hazards.

Credit Points Awarded for CRS Activities

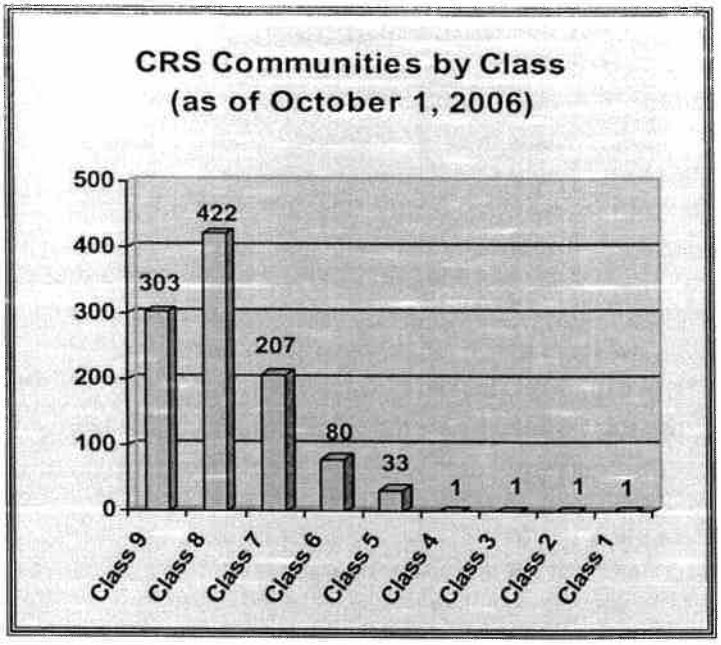
ACTIVITY	MAXIMUM POSSIBLE POINTS	AVERAGE POINTS EARNED	MAXIMUM POINTS EARNED	PERCENTAGE OF COMMUNITIES CREDITED
300 Public Information Activities				
310 Elevation Certificates	162	69	142	100%
320 Map Information	140	138	140	95%
330 Outreach Projects	380	90	290	86%
340 Hazard Disclosure	81	19	81	61%
350 Flood Protection Information	102	24	66	87%
360 Flood Protection Assistance	71	53	71	48%
400 Mapping & Regulatory Activities				
410 Additional Flood Data	1,346	86	521	29%
420 Open Space Preservation	900	191	734	83%
430 Higher Regulatory Standards	2,740	166	1,041	85%
440 Flood Data Maintenance	239	79	218	68%
450 Stormwater Management	670	98	490	74%
500 Flood Damage Reduction Activities				
510 Floodplain Management Planning	359	115	270	20%
520 Acquisition and Relocation	3,200	213	2,084	13%
530 Flood Protection	2,800	493	813	6%
540 Drainage System Maintenance	330	232	330	69%
600 Flood Preparedness Activities				
610 Flood Warning Program	225	93	200	30%
620 Levee Safety	900	198	198	1%
630 Dam Safety	175	66	87	81%

Community Rating System Timeline

Year	Major Activity
1987	〈 First Community Rating System Task Force appointed by Federal Insurance Administrator.
1988	〈 Insurance Services Office tasked with a major role in developing the CRS. 〈 First *Schedule* drafted, modeled on ISO's community fire insurance rating system.
1989	〈 *CRS Commentary* expands on the *Schedule*. Field tests conducted. 〈 "Weighting Forum" sets basis for points and scoring system.
1990	〈 *CRS Coordinator's Manual* published, combining the *Schedule* and the *Commentary* in one guidebook for the local official. 〈 75 workshops held around the country. Week-long CRS courses begin at FEMA's Emergency Management Institute. 〈 *Example Plans*, first of the "model programs" series, is published to provide more guidance on how communities can implement and score their activities. 〈 *NFIP/CRS Update* initiated to provide periodic news, helpful hints to local officials. 〈 324 communities apply by December 15 deadline.
1991	〈 First verification visits conducted. 〈 293 cities and counties become Class 9 CRS communities on October 1.
1992	〈 1990 initial applicant communities' verified classes take effect on October 1; 〈 280 of the 1991 applicants become Class 9.
1993	〈 The 3- and 5-year cycle verification system is formalized.
1994	〈 The *Short Form Application* is published, providing a streamlined way for communities to apply, evolving into the *CRS Application* – single application procedure. 〈 The *Schedule* includes new credits for protecting natural and beneficial functions and for coastal erosion programs. 〈 The National Flood Insurance Reform Act codifies the CRS.
1995	〈 FEMA begins three-year evaluation of the CRS with a Call for Issues and a survey of local CRS Coordinators.
1996	〈 Revised annual recertification format provides more information to help communities implement their activities. 〈 Single annual deadline and self-certified Class 9 approach dropped. Communities may apply at any time. Verified classifications take effect on May 1 and October 1.
1998	〈 Evaluation continues with focus groups and surveys. 〈 "Weighting Review Forum" held to tie the evaluation's conclusions to credit criteria and the scoring system.
1999	〈 New *CRS Coordinator's Manual* reflects the conclusions of the evaluation.
2002	〈 FEMA publishes revised *CRS Coordinator's Manual*.
2003	〈 FEMA introduces new CRS Resource Center website
2004	〈 Developed new CRS video to better explain and market the CRS.
2006	〈 Revised *CRS Coordinator's Manual* includes increased credit points for new and/or higher-standard maps, new credit for analyses of repetitive flood loss areas and bonus points for acquiring or otherwise mitigating repetitive loss buildings. 〈 First Class 1 community is verified. 〈 Policy developed for applying CRS policies and requirements to communities catastrophi-

Participating Communities

As of October 1, 2006, there are 1049 communities in the CRS. Their class distribution is shown in the chart to the right. It can be seen that over half of all CRS communities are Class 8 or better.



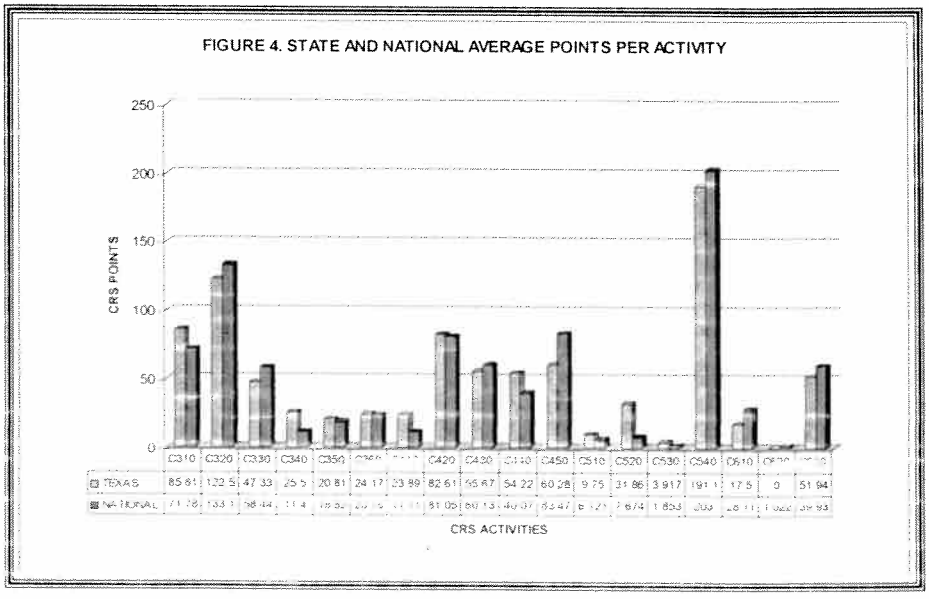
There are over 20,000 communities in the NFIP. The 1049 CRS-participating communities represent 5% of all NFIP communities. However, these cities and counties account for over 66% of all flood insurance policyholders. CRS communities have the bulk of the nation's flood challenges.

Roseville, California; Tulsa, Oklahoma; King County, Washington; and Fort Collins, Colorado, are the four best-rated CRS communities in the nation. They are rated, respectively, in Classes 1 (45% premium discount), 2 (40% premium discount), 3 (35 % premium discount), and 4 (30% premium discount).

On October 1, 2006, Roseville became the first-ever Class 1 community in the CRS, earning an unprecedented 45% premium discount for its policyholders. The city's new status culminated a 15-year process begun when it joined the CRS and received a Class 8 rating and spurred by damaging floods in 1995. Since then Roseville has implemented a combination of flood protection activities including higher regulatory standards, stormwater projects, public awareness efforts, acquisition of floodprone buildings, elevation of structures, and floodwalls and berms.

State Profiles. The CRS State Profile provides a narrative and graphic summary of each state's communities' scores by activity. Readers get a quick view of which communities are participating, what scores they get for each activity, and their flood insurance premium savings.

Readers can also see how the state's community scores compare to the national averages (see example graph). This helps identify state training needs, etc.



Distribution by State. The distribution of participation in the CRS is shown below. Participating communities are well distributed across the country. Participation is particularly high in Florida, which has more flood insurance policies than any other state and a high level of awareness of its exposure to flooding. Relatively high participation rates in Florida, North Carolina, California, New Jersey, and Colorado are also due to active state programs that help promote the CRS.

CRS Participation by FEMA Region and State

Region I	
CT	9
ME	21
MA	13
NH	5
RI	4
VT	3
	55

Region II	
NJ	44
NY	27
	71

Region III	
DE	7
MD	6
PA	14
VA	17
WV	2
	46

Region IV	
AL	12
FL	211
GA	28
KY	16
MS	19
NC	76
SC	32
TN	8
	402

Region V	
IL	35
IN	15
MI	18
MN	3
OH	13
WI	12
	96

Region VI	
AR	13
LA	36
NM	10
OK	11
TX	43
	113

Region VII	
IA	2
KS	4
MO	2
NE	2
	10

Region VIII	
CO	44
MT	12
ND	2
SD	1
UT	10
WY	5
	74

Region IX	
AZ	25
CA	64
HI	1
NV	8
	98

Region X	
AK	6
ID	21
OR	30
WA	27
	84

Dollars and Cents

Administrative Costs. The annual costs for implementing the CRS program, like all other administrative expenses of the NFIP, are funded from policyholder premiums. The costs fall into two categories: staff resources and operating costs.

The staffing category covers the investment of time by state, federal, and associated Task Force staff involved in direct program management and implementation of the CRS. That time can be summarized as an average annual total cost of $720,000, for 11.4 FTEs.

The total contracted operating costs are $3.6 million annually and include office and field review of all community applications, program oversight and quality control, preparing and printing various CRS publications, and other miscellaneous program costs. Other direct FEMA operating expenses are about $505,000 and include program travel, subsidizing community and state participation at three annual CRS classes at FEMA's Emergency Management Institute; printing the *CRS Application* and *Coordinator's Manual*, and other miscellaneous costs.

The total staffing and operating costs for administering the CRS program are currently estimated to be over $4.8 million for the 2006 calendar year.

Insurance and Mitigation Savings and Benefits. The CRS strategy has been twofold: to recognize floodplain management and insurance activities that meaningfully distinguish one class of community from another; and to act as a catalyst to encourage communities to initiate new activities. Since 1990, 50% of all CRS communities have improved their CRS classes (see graph on page 17), indicating that more flood loss reduction activities are being undertaken. Since 1996, there has been a steady increase in the number of communities in the better CRS classes. In that year, 32% of CRS communities were Class 8 or better; in the year 2000, over 50% were so classified; and today, over 70% of the CRS communities are rated Class 8 or better. Over the long term, this increases the benefits of the CRS and justifies the added administrative expense of having these classifications in the flood insurance rating system.

Further, the CRS has become an important tool for mitigation as well as a mechanism for integrating mitigation with insurance. This is consistent not only with grading systems that have been successfully employed for many years in the insurance industry, but also with new industry initiatives for relating insurance premiums to community efforts to reduce losses from natural hazards. In addition, a community that implements these mitigation activities provides benefits to all its residents—insured or not—and thereby reduces the need for taxpayer-funded flood response and recovery efforts. The overwhelming responses from various surveys of local officials and floodplain residents indicate that the CRS is a strong catalyst for communities to undertake new activities. And, we have calculated that the loss reduction value of only 60 CRS points per community associated with new activities more than offsets the federal expenses of the CRS.

The costs borne by communities in implementing activities credited under the CRS are justified by the reduction in losses to property and lives in the communities. These benefits accrue to all the residents, WHETHER THEY HAVE FLOOD INSURANCE OR NOT. The full costs and benefits of undertaking activities can only be assessed by the individual communities. The CRS provides a partial benefit in two ways: national recognition of local flood mitigation efforts, and premium reductions for those prudent enough to purchase flood insurance. The latter benefit totals just under $ 170 million annually in what policyholders pay for purchasing coverage in the 1049 participating CRS communities, compared to what they would pay as non-CRS communities.

Taken together, the above results provide evidence that the federal and community costs of implementing the CRS are more than justified by the benefits being obtained.

The best way to view the benefits of the CRS is to list how they impact communities and FEMA. Community benefits include these:

- The activities credited by the CRS result in enhanced public safety, a reduction in damage to property and public infrastructure, the avoidance of economic disruption and losses, reduced human suffering, and protection of the environment.
- A community can evaluate the effectiveness of its flood program against a nationally recognized benchmark.
- Residents save on flood insurance premiums.
- Technical assistance in designing and implementing some activities is available.
- A CRS community's flood program benefits from having an added incentive to maintain its flood mitigation programs over the years. The fact that the community's CRS status could be affected by the elimination of a flood-related activity or weakening of the regulatory requirements for new development should be taken into account by the local governing body when considering such actions. A similar system used in fire insurance rating has strongly affected local government support for fire protection programs.
- Communities that participate in the CRS find that their floodplain management activities are better organized and more formalized. They are administered better and remain in operation after personnel changes.
- Implementing some CRS activities, such as floodplain management planning, can help a community qualify for certain federal assistance programs.

FEMA and the federal taxpayers benefit from the CRS in several ways, too. These include:

- Credited floodplain management activities have been shown to reduce flood losses and, therefore, flood insurance claims, disaster assistance payments, lost tax revenue, etc.
- Communities publicize flood insurance and help insurance agents get rating information.
- Loss reduction activities benefit all residents, insured or not. Flood insurance policy holders are the catalyst for community-wide programs that help everyone.
- The CRS has been a sort of laboratory, providing data to FEMA on different ways to implement floodplain management activities. New initiatives by FEMA can be based on how communities have tried them on their own, as measured by CRS credits.

Part 2. Program Management

The Players

FEMA. The CRS is administered by the Department of Homeland Security's Federal Emergency Management Agency (FEMA)'s Mitigation Division. FEMA has ten Regional Offices that coordinate the field contacts with states and communities (see map, page 6).

Task Force. Because of the many disciplines required to develop and monitor the CRS, FEMA created the Community Rating System Task Force. Its members bring together the fields of actuarial science, engineering, floodplain management, insurance underwriting, and property insurance inspection and rating services.

The Task Force is the focal point for all discussions about the CRS and the primary advisor to FEMA on the program. Key FEMA staff are also Task Force members.

Task Force Membership

1 – Chair: retired insurance executive
6 – FEMA, Mitigation Division
3 – FEMA, Regional Offices
2 – Insurance industry
1 – Association of State Floodplain Managers
1 – National Emergency Management Association
1 – National Association of Flood and Stormwater Management Agencies
2 – Local community CRS Coordinators
1 – National Oceanic and Atmospheric Administration

Insurance Companies. The companies that write flood insurance policies are responsible for explaining the CRS and its benefits to its policyholders. Their representatives on the Task Force ensure that the program's insurance aspects are manageable and provide a business perspective to operational issues.

Insurance Services Office, Inc. ISO has an arrangement with FEMA and insurance companies to process applications and provide technical assistance to FEMA, states, and communities.

States and Communities. These players implement the activities credited by the CRS. Most of the activities are undertaken by local governments. However, communities can receive credit for activities implemented at the state, county, or regional level. It is estimated that 10%–20% of the credited activities are implemented by a state or regional agency or because of a state or regional mandate. State and regional agencies also provide technical assistance to communities.

Program Activities

Here is a list of the activities undertaken during 2005. This list demonstrates the number and breadth of projects implemented pursuant to administering the CRS.

Community Review.

- Reviewed 32 new community applications and conducted verification visits.
- Reviewed 9 modifications to existing community programs, including verification visits.
- Conducted 204 cycle verification visits (each community is reviewed every 3 to 5 years).

Publications and Software.

- Published the 2006 *CRS Coordinator's Manual* and *CRS Application*.
- Developed or updated and printed technical assistance publications (see box).
- Published the *NFIP/CRS Update* newsletter.

Community Training.

- Conducted or made presentations at 24 local, state, or national workshops.
- Conducted three week-long training courses at the Emergency Management Institute.

Community Outreach.

- Distributed thousands of color brochures, *The National Flood Insurance Program's Community Rating System.*
- Displayed a CRS booth at five national conferences of professional associations.
- Made presentations at five conferences of professional associations.
- Maintained and enlarged the CRS website, which includes all CRS publications, guidance, tools, and samples to help communities apply to the CRS or improve their classifications.

Technical Assistance Publications

CRS technical assistance publications, known as "model programs," cover the following topics:

Floodplain management planning

Higher regulatory standards

Dam failure response planning.

Drainage system maintenance

Flood warning programs

Outreach projects

Stormwater management

Other technical publications cover the mapping and management of areas subject to special hazards:

- *CRS Credit for Mitigation of Tsunami Hazards*
- *CRS Credit for Management of Coastal Erosion Hazards*
- *Special Hazards Supplement to the CRS Coordinator's Manual.*

Program Improvement

The Process. The CRS has a system to continually analyze, clarify, and improve its credit criteria, scoring, and operations. Valuable feedback on needed changes and improvements is obtained through

- Feedback from communities at workshops, meetings, and verification visits;
- Feedback from states and FEMA regional staff;
- Questionnaires and draft policy papers that are circulated for comment;
- Special investigations, such as the research and interviews conducted in CRS communities affected by the 2004 and 2005 hurricanes; and
- "Calls for Issues" periodically sent out by FEMA.

A variety of concerns and suggestions are derived from these sources. CRS staff prepare memos, issue papers, and draft responses, which are sent to the Task Force for consideration at one of the three meetings it holds each year. The Task Force members, especially those who represent local, state, and FEMA Regional Offices, have their own direct sources of information.

The Task Force meetings are rotated among the ten FEMA regions in order to obtain input from experienced field personnel from different parts of the country. Each Task Force meeting is attended by representatives of the host FEMA Regional Office. State officials and local CRS

Coordinators from communities in the area are invited to provide their comments on the program.

The in-stream changes that result from this ongoing process have varied from adjusting the points of an individual element in the grading schedule to major changes in the *CRS Coordinator's Manual*. All of the landmark changes listed in the CRS Timeline (see page 4) were developed through this process.

Hurricanes Katrina and Rita in 2005 affected CRS communities more deeply than any hurricane to date. In the past, CRS policy has been to be flexible with disaster-stricken communities with regard to their annual recertification requirement and their cyclical verification visit. Although their CRS-credited activities are important and contribute to reduced flood losses over the long term, it is understandable that community staff are focused on repair and recovery issues after disasters. This was especially true after Katrina and Rita. Accordingly, the CRS instituted in 2006 a draft policy for such situations. It allowed for adjustments to the scheduled requirements for CRS community participation, stated which ongoing activities could be temporarily interrupted because of the disaster without loss of CRS credit, and which activities could not be waived. The draft policy also called for additional consultation between the community and the ISO/CRS staff and for the provision of more technical assistance as needed.

This draft policy was pilot tested during the summer of 2006, through field visits and interviews with staff in CRS communities affected by the hurricane. The test revealed that most communities were able to continue implementing most of their CRS activities in spite of the disruption. Two notable obstacles were the loss of experienced local staff to more lucrative opportunities presented by the recovery process and the inability of some communities to implement outreach activities that involved direct mailings (because addressees—and sometimes the building itself—were no longer at the site). However, communities tended to adapt their ongoing outreach activities to compensate for this problem and also to address the more pressing need for disseminating information about repair, rebuilding, and recovery rather than simply about flood hazard awareness.

At its October 2006 meeting, the CRS Task Force adopted the draft policy and the recommendations from the pilot test. This will result in the application of a consistent approach to handling the CRS requirements among communities that are affected by future disasters.

The Results. Pursuant to this ongoing improvement process, in 2006, the CRS Task Force made the following changes when it adopted the 2006 *CRS Coordinator's Manual:*

- Increased credit points for new and/or higher-standard maps
- New credit for analyses of repetitively flooded areas
- Bonus points for acquiring or otherwise mitigating repetitive loss property
- New credit for outreach efforts that encourage the purchase or retention of flood insurance
- Clarification of credit for providing the map information service through a website
- Increased credit for providing flood protection information through a website

The Task Force has also tasked several research projects to evaluate selected activities and prepare possible revisions for the next manual. These include

- The post-hurricane evaluation described above;
- An independent evaluation of CRS credits for public information activities;
- A review of credits for flood warning, to be conducted in conjunction with the National Emergency Management Association; and
- A new process for evaluating and verifying state dam safety programs, to be conducted in cooperation with the U.S. Army Corps of Engineers and the Association of State Dam Safety Officials.

Part 3. Progress Toward Goals

Past CRS Reports to Congress identified "overall and strategic issues." The 2004 report recommended that the following be "pursued in future years."

1. Continue to coordinate closely with and supporting FEMA's all–hazards risk management strategy..
2. Continue efforts to promote the benefits of joining the CRS.
3. Continue to assist and encourage officials of communities already in the CRS to improve their floodplain management programs and thereby receive better CRS classifications.

This part reviews the progress made toward these goals since the 2004 Report to Congress.

All-Hazards Risk Management

The first strategic goal for 2004 was to coordinate with and be supportive of FEMA's all-hazards approach to managing risk.

The primary purpose of all-hazards risk management is to identify and bring to bear all community policies, actions, and tools that will, over the long term, result in a reduction in both the level of risk and the potential for future losses community-wide. All-hazard risk management is most successful when it increases public and political support for planning and mitigation programs, results in actions that also support other important community goals and objectives, and influences the community's or state's decision making to include hazard reduction considerations.

The CRS is particularly helpful in doing this, because it encourages communities to tackle their problems in a variety of ways. Once local officials have their flood mitigation activities in operation, it becomes easier to begin to address other hazards with the same people and programs. This approach has been followed in many communities, CRS and non-CRS alike. Local officials report that the CRS program, its activities, and planning guidance gave them ideas about where to start and how to organize other risk management programs.

Mitigation. It is continually noted that many communities initiate all-hazard mitigation plans because of the FEMA requirements. During their planning processes, they discover the true extent of their flooding problems, learn about the CRS, and begin reducing their repetitive flood losses. In addition, the CRS provides a financial and political incentive to undertake mitigation activities. CRS mitigation activity numbers and their measures include

320, 410, 440—Developing and/or providing accurate hazard information;

330, 360—Advising people on mitigation measures they can take to protect their properties;

420—Preserving hazardous areas as open space;

430, 450—Enacting and enforcing higher regulatory standards for new development;

510—Preparing and adopting comprehensive mitigation/floodplain management plans;

520 Acquiring and relocating floodprone buildings;

530 Protecting existing floodprone buildings; and

540 Maintaining drainage systems to prevent flooding from debris jams and obstructions.

Often communities initiate such mitigation activities either because the CRS provides an incentive or because the CRS provides information and guidance on how to do them (or both). There are many examples of such success.

The CRS has taken the following specific actions to promote all-hazards mitigation:

- Communities cannot become better than a CRS Class 8 unless they have an up-to-date, all-hazards building code and an enforcement program recognized by the Building Code Effectiveness Grading Schedule (BCEGS).
- There are additional credits and prerequisites for higher CRS classes based on the community's BCEGS class.
- The Land Development Regulations component of the CRS encourages communities to treat flooding as one of several hazards that they must mitigate to safely guide wise development decisions.
- There are now more credits for programs that deal with flood-related hazards, such as coastal erosion and tsunamis.
- CRS staff have worked closely with FEMA all-hazards planning staff to ensure that the CRS credit criteria support all-hazards planning and to make both programs' requirements consistent. As a result, one plan document can meet the prerequisites of the CRS and three other FEMA programs, including the multi-hazard pre-disaster mitigation grant program.

Building Codes. Building codes ensure the health and safety of citizens in the built environment. It has been FEMA's experience, in responding to disasters of all types in all parts of the country, that communities with adequate codes and adequate code enforcement have survived far better and recovered far more quickly than communities without adequate building codes. With the rise of disaster costs in the United States, communities cannot afford to continue business as usual when it is within their power to be more disaster resistant. The cornerstone of mitigation is community adoption and enforcement of strong building codes.

For these reasons, FEMA fully supports building codes such as the model International Code Series (I-Codes) that address most natural hazards on a consistent, rational basis that allows mitigation of the effects of those natural hazards that are found within each jurisdiction's boundaries. Because of these advantages, the CRS program encourages community adoption of the I-Codes (or like codes) through provision of increased credit points (Activity 430).

However, adoption of building codes is not enough. The CRS has also tied credits to updating and enforcing a building code. The CRS relies on ISO to provide community classifications under the insurance industry's BCEGS program. The better the BCEGS class, the more CRS points (Activity 430).

Further, a community cannot progress beyond a CRS Class 8 without a good BCEGS class or beyond a CRS Class 5 without a better one. This has encouraged several communities to adopt their first building codes and other communities to improve their building codes and administration so they can improve their CRS classes.

Mitigation Research. The CRS provides a wealth of information on the communities with flood problems and the floodplain management activities they are implementing to reduce those problems. The data and local materials collected have helped many research projects

The series of hurricanes that struck the Gulf Coast and Florida during 2004 and 2005 tested local hazard mapping, regulatory, mitigation, response, and public information activities. FEMA conducted a series of analyses of the effectiveness of floodplain management programs that were intended to prepare for and respond to the hurricanes. Because about one-fourth of all CRS communities were affected by the hurricanes, a special evaluation was conducted of activities credited under the CRS. Ways are being sought by which the CRS could support and encourage the adoption of those mitigation, preparedness, and public safety measures that FEMA found had been effective in minimizing the impacts of the hurricanes.

For example, FEMA's investigation resulted in several recommendations that local communities adopt stronger coastal construction standards. The CRS currently provides credit to communities who do so, and now is exploring ways to further encourage adoption of higher standards, either through additional credit points or through a completely new element. As another example, it was found that communities that lost building elevation certificates and other records in the hurricanes had a more difficult time implementing the repair and rebuilding process. The CRS is considering establishing a prerequisite or providing credit to communities that store original or backup elevation certificates, building permit files, and other records at an off-site location.

Repetitive Losses. Repetitively flooded properties make up 1% of the NFIP policies but account for over 30% of the claims payments. Addressing these repetitive losses has been a FEMA priority for years, but the programs did not have the ability to mitigate enough properties to reverse the trend. However, the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004 created expanded program authority and grants to make significant inroads to reducing repetitive loss structures through individual and community projects that acquire, relocate, elevate, or floodproof these repeatedly flooded properties.

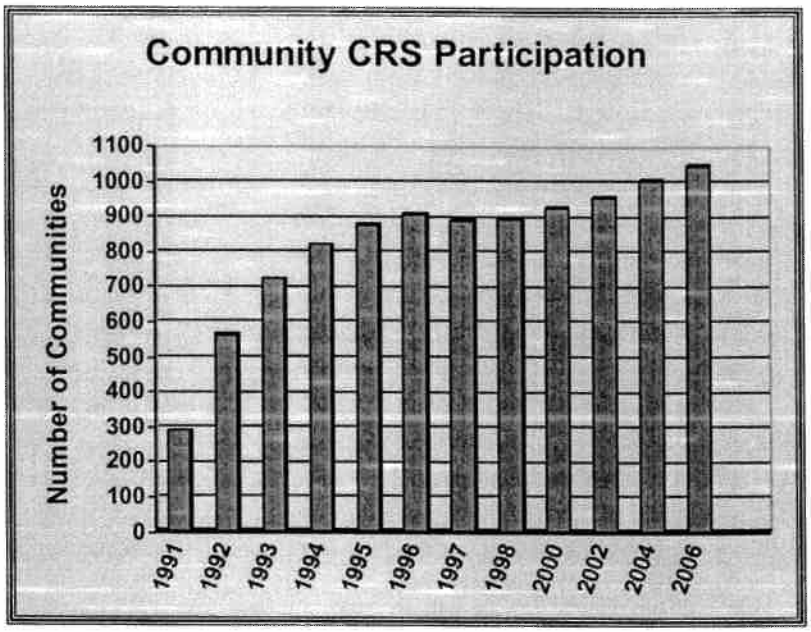
The CRS helps these efforts in two ways. First, every CRS community must research its repetitive losses, identify the causes of the problem(s), and distribute flood protection information to property owners in repetitive loss areas. The CRS-managed Repetitive Loss Update Center refines the database by working with communities who provide additional mitigation information on each property, thereby helping FEMA get a better handle on the extent of the problem. In the 2006 *Coordinator's Manual* a new element was added to give a community credit points for conducting a detailed analysis of its repetitive loss areas.

The second way the CRS supports FEMA's efforts to reduce repetitive losses is through the mitigation measures that communities undertake for CRS credit. For instance, repetitive loss properties acquired, retrofitted, or relocated outside the special flood hazard areas now receive credit, and those within the floodplain receive double credit. In the 2006 *Coordinator's Manual* provisions were added to award more "bonus" points to communities that acquire, relocate, or otherwise remove one or more of their Severe Repetitive Loss Properties* from floodprone sites. Similar bonus points also are now provided for certain flood protection projects that affect one or more Severe Repetitive Loss Properties.

* Defined pursuant to the 2004 Reform Act as 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.

Encouraging Participation

The second strategic goal set forth in the last Report to Congress is to get more communities into the CRS. This goal is not just to increase the numbers. As noted in the previous section, once they are in, there is a propensity for communities to work toward improving their floodplain management programs.



CRS participation increased greatly during the first five years of the program when the most active communities applied. Then, growth leveled off from 1996 to 1999, when communities received their first "cycle" visit leading to a number of communities dropping out voluntarily or being removed because they no longer met the program requirements. However, various marketing and technical assistance efforts have resulted in moderate growth in the CRS since 1999.

Participation Activities. As with class improvement, FEMA and its partners are doing many things to encourage and assist communities to both join and remain in the CRS. Because of these efforts, total participation increased by 43 communities since 2004. Annual increases have doubled from 10 per year to more than 20. Over the last two years, activities to encourage more participation have included:

- Simplifying the documentation needed and removing other impediments to applying;
- Providing color brochures that explain the CRS to non-participants;
- Putting CRS information and publications on FEMA's website;
- Conducting training programs on applying to the CRS;
- Making presentations about the CRS at local officials' workshops;
- Experimenting with new approaches for state officials and others to complete the applications for smaller communities;
- Promoting uniform minimum credit and master applications in states and counties that administer their own programs with higher standards,
- Including articles on the benefits of the CRS in newsletters of professional organizations and local officials' associations; and
- Showing the CRS video containing community success stories.

Improvement in CRS Classifications

The third strategic issue posed in the last Report to Congress dealt with "encouraging officials of communities already in the CRS to engage in activities that will improve their CRS class." As

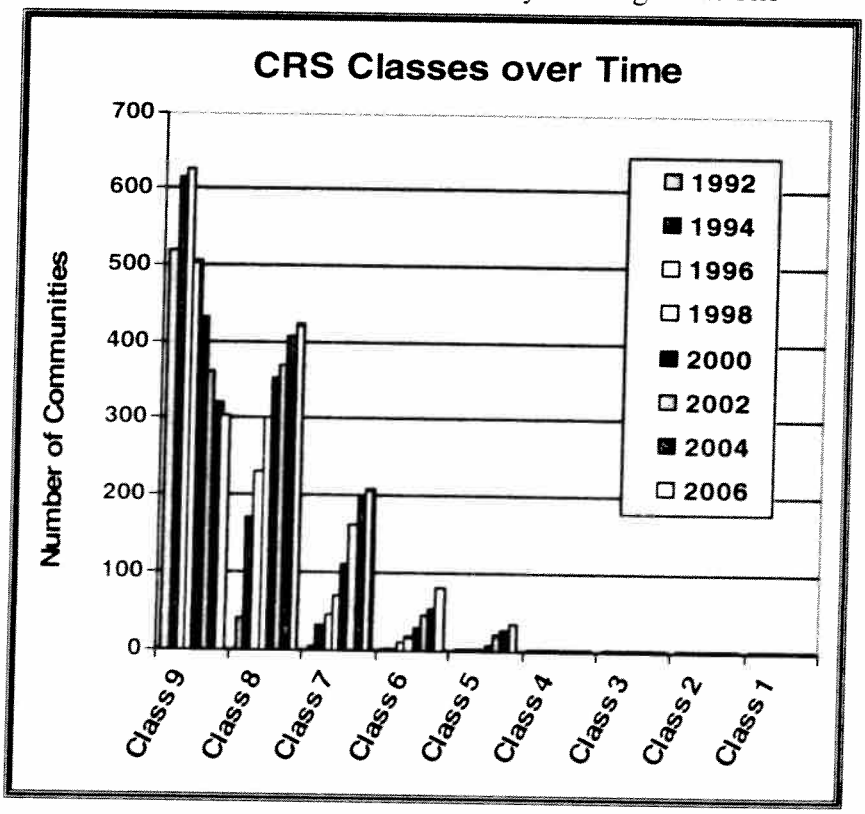
noted in the issue statement ("thereby increasing protection for the lives and property of their citizens"), the better the class, the more the community is doing to reduce flood losses and accomplish the other goals of the CRS.

Class Improvement Activities. We are doing many things to encourage and assist communities to improve their programs and apply for the additional CRS credit. Over the last two years, these have included:

- Continuing to simplify the documentation needed and removing other impediments to applying for additional credits;
- Preparing new and updating existing publications on various floodplain management activities;
- Putting many publications on FEMA's website where they are readily accessible;
- Conducting training programs at the Emergency Management Institute and field-deployed locations;
- Providing more assistance to local officials during community verification visits;
- Publicizing CRS communities' success stories in a periodic newsletter to communities;
- Encouraging communities to improve their staff capabilities and breadth of interest through the floodplain manager certification program; and
- Linking CRS credit to initiation of other new mitigation programs, including StormReady, TsunamiReady, the BCEGS, and the International Codes Series.

Results. As a result of this work (and the basic desire by communities to do better), there has been a steady improvement in community classifications. A pattern has been seen—first a community does just enough to join as a Class 9. Then during verification visits, help is provided to local officials to show them how they could start new activities or modify existing ones. The local officials receive newsletters, publications, and other information or attend workshops on CRS activities and they become motivated to do more.

This pattern is shown in the chart. Over the last 12 years, the number of "entry-level" (Class 9) CRS communities has decreased and more and more communities have moved up to the better classifications. Although they are too small to show up on the graph, the CRS awarded its first Class 1 to Roseville, California, in 2006, and the CRS has one community each in Classes 2, 3, and 4.



Conclusions

The CRS has made significant progress toward meeting the four strategic goals set out in the 2004 Report to Congress. Communities that have applied for classification under the CRS are achieving higher classes, indicating that more of the sophisticated flood loss reduction activities are being undertaken. Over the long term, this will increase the benefits of the CRS and justify the added expense of these classifications in the flood insurance rating system. The CRS has become an important tool for mitigation as well as a mechanism for integrating mitigation with insurance. This is consistent not only with grading systems that have been successfully employed for many years in the insurance industry, but also with new industry initiatives for relating insurance premiums to local community efforts to reduce losses due to natural hazards.

A key component of the FEMA Mitigation Division's mission is to lead national efforts to encourage all-hazards risk management and to recognize those types of activities with regard to natural hazards in insurance rating systems. A multi-hazard approach is promoted at the local level that leads to reduced losses by building disaster-resistant communities. Adoption and enforcement of strong building codes as measured by the insurance industry's Building Code Effectiveness Grading Schedule integrates local community building code enforcement into the industry's premium rates. The CRS of the NFIP is an important component of this trend in mitigation.

This report has provided an overview of how the CRS operates, where it stands now, and how well it is progressing toward its goals. The main findings can be summarized as follows:

- The 1049 participating CRS communities represent two-thirds of all flood insurance policies.
- Participation in the CRS is well distributed across the country. It is higher in Florida, North Carolina, California, and other states where policy counts are greater and in those states that are more active leaders in floodplain management.
- In addition to the benefits of the CRS's basic approach of encouraging and crediting floodplain management activities, the CRS also helps reduce disaster losses in a wide variety of ways, such as acting as a model for FEMA's all-hazards risk approach for communities, supporting research into mitigation activities, emphasizing stronger multi-hazard building codes, and encouraging all-hazards planning.
- The program has been steadily growing over the past five years and CRS communities are improving their floodplain management programs and receiving better CRS classifications in return.
- The costs borne by communities in implementing activities credited under the CRS are justified by the reduction in losses to property and lives in the communities. These benefits accrue to all the residents, whether they have flood insurance or not. The CRS provides two important benefits to communities: national recognition of their flood mitigation efforts, and premium reductions for those prudent enough to purchase flood insurance.

The following strategies will be implemented by FEMA to guide the CRS until the next biennial Report to Congress:

1. The CRS will continue to be closely coordinated with and be mutually supportive of FEMA's all-hazards risk management strategy.
2. Efforts to promote the benefits of joining the CRS will be continued.
3. CRS communities will continue to be assisted and encouraged to improve their floodplain management programs and thereby receive better CRS classifications.
4. Revisions to CRS policy as published in the *CRS Coordinator's Manual* will be considered for future editions, as we continue to refine the CRS and meet the above-mentioned strategies and any new ones on the horizon.