

## 100 INTRODUCTION

The Introduction is an overview of the Community Rating System (CRS). Section 110 discusses the concepts of the CRS. Section 120 describes the floodplain management activities that are credited by the CRS and their relationship to community floodplain management programs. A glossary of terms appears as Section 130.

<b>Contents of Series 100</b>	
Section	Page
110 Purpose and Scope .....	110-1
111 Background .....	110-1
112 Objective .....	110-1
113 Operation .....	110-2
114 Community Responsibilities .....	110-3
115 Costs and Benefits .....	110-4
116 Natural and Beneficial Functions .....	110-5
117 CRS Activities .....	110-6
118 Uniform Minimum Credit .....	110-7
119 All-Hazard Mitigation .....	110-7
120 CRS Credit Points .....	120-1
121 Application for Credit .....	120-1
122 Activity Credit Points .....	120-1
123 A Quick Check of a Community's Potential CRS Credit .....	120-3
124 Publications .....	120-6
130 Glossary .....	130-1

### List of Tables

120-1. Credit points awarded for CRS activities .....	120-2
-------------------------------------------------------	-------

[This page intentionally blank]

## **110 PURPOSE AND SCOPE**

### **111 Background**

The National Flood Insurance Program (NFIP) provides federally backed flood insurance that encourages communities to enact and enforce floodplain regulations. Since its inception in 1968, the program has been very successful in helping flood victims get back on their feet. There are nearly 4.6 million policies in force, with about \$2 billion in written premiums. From 1978 through 2004, over 940,000 losses totaling almost \$14 billion have been paid.

To be covered by a flood insurance policy, a property must be in a community that participates in the NFIP. To qualify for the program, a community adopts and enforces a floodplain management ordinance to regulate development in flood hazard areas. The basic objective of the ordinance is to ensure that such development will not aggravate existing flooding conditions and that new buildings will be protected from flood damage. Today, over 19,000 communities participate in the NFIP.

The NFIP has been successful in requiring new buildings to be protected from damage by a 100-year flood. However, flood damage still results from floods greater than the 100-year flood and from flooding in unmapped areas. Under the Community Rating System (CRS), there is an incentive for communities to do more than just regulate construction of new buildings to minimum national standards. Under the CRS, flood insurance premiums are adjusted to reflect community activities that reduce flood damage to existing buildings, manage development in areas not mapped by the NFIP, protect new buildings beyond the minimum NFIP protection level, help insurance agents obtain flood data, and help people obtain flood insurance.

### **112 Objective**

The objective of the CRS is to reward communities that are doing more than meeting the minimum NFIP requirements to help their citizens prevent or reduce flood losses. The CRS also provides an incentive for communities to initiate new flood protection activities. The goal of the CRS is to encourage, by the use of flood insurance premium adjustments, community and state activities beyond those required by the NFIP to:

- Reduce flood losses, i.e.,
  - protect public health and safety,
  - reduce damage to buildings and contents,
  - prevent increases in flood damage from new construction,
  - reduce the risk of erosion damage, and
  - protect natural and beneficial floodplain functions.
- Facilitate accurate insurance rating, and
- Promote the awareness of flood insurance.

## 113 Operation

To be recognized in the insurance rating system, community floodplain management activities must be described, measured, and evaluated. The basic tool for this is the *CRS Schedule*, which sets forth the application procedures, creditable activities, and the credit points assigned to each activity. A community receives a CRS classification based upon the total score for its activities. The *CRS Commentary* explains the *Schedule* and gives examples of activities and how their credit is calculated. The *Schedule* and *Commentary* are included within the *CRS Coordinator's Manual*, the primary document detailing the program.

There are 10 CRS classes: Class 1 requires the most credit points and gives the greatest premium reduction; Class 10 receives no premium reduction. A community that does not apply for the CRS, or does not obtain the minimum number of credit points, is a Class 10 community.

Community participation in the CRS is VOLUNTARY. Any community 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 the *CRS Application* along with documentation which shows that it is implementing the activities for which credit is requested. All CRS credit is verified according to the detailed discussion of the activities in the *Coordinator's Manual*. The application process is discussed in more detail in the *CRS Application*.

The *Schedule* identifies 18 creditable activities, organized under four categories labeled Sections 300 through 600: Public Information, Mapping and Regulations, Flood Damage Reduction, and Flood Preparedness. The *Schedule* assigns credit points based upon the extent to which an activity advances the three goals of the CRS. Communities are invited to propose alternative approaches to these activities in their applications.

Some CRS activities may be implemented by the state or a regional agency rather than at the community level. For example, some states have disclosure laws that are creditable under Activity 340 (Flood Hazard Disclosure). Any community in those states will receive those credit points when it applies for CRS credit and demonstrates that the law is effectively implemented within its jurisdiction.

An application for a CRS classification may be submitted at any time. A community applies by sending a completed *CRS Application* with appropriate documentation to its ISO/CRS Specialist. Copies of all or parts of the application may be sent to the Regional Office of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) and to the State NFIP Coordinator.

The Insurance Services Office, Inc. (ISO) is subscribed to by more than 1,300 insurance companies. Among other services, ISO develops and provides advisory fire insurance classifications for community fire protection programs. ISO reviews CRS applications, verifies the communities' credit points, and performs program improvement tasks.

The community's activities and performance are reviewed during a verification visit. FEMA sets the credit to be granted and notifies the community, the state, insurance companies, and

other appropriate parties. The classification is effective on either May 1 or October 1, whichever comes first after the community's program is verified.

Each year the community must recertify or reverify that it is continuing to perform the activities that are being credited by the CRS. Recertification is an annual activity that includes progress reports for certain activities. The cycle verification takes place every few years and is conducted in the form of another verification visit to the community.

If a community is not properly or fully implementing the credited activities, its credit points, and possibly its CRS classification, will be revised. A community may add credited activities each year in order to improve its CRS classification.

Credit criteria will change over time as experience is gained in implementing, observing, and measuring the activities and as new concepts in floodplain management come into common practice. As innovations arise, they will be considered for recognition under the CRS.

Communities are encouraged to call on their ISO/CRS Specialist for assistance at any time. A week-long CRS course for local officials is offered free at FEMA's Emergency Management Institute. The ISO/CRS Specialist, State NFIP Coordinator, and FEMA Regional Office have more information on this course, state workshops, and other CRS training opportunities.

## **114 Community Responsibilities**

Once it has submitted its *CRS Application*, a community must continue to implement its credited activities to keep its classification. Specifically, a community is responsible for:

- Designating someone who is familiar with the agencies that implement CRS activities as the community's CRS Coordinator,
- Cooperating with the ISO/CRS Specialist and the verification procedures (Section 230),
- Recertifying each year that it is continuing to implement its activities (Section 214),
- Submitting the appropriate documents with its recertification (Section 214),
- Advising FEMA and its ISO/CRS Specialist of modifications in its activities (Section 215),
- Maintaining elevation certificates, other permit records, and old Flood Insurance Rate Maps (FIRMs) forever,
- Maintaining other records of its activities for five years, or until the next verification visit, whichever comes sooner, and
- Participating in the cycle verification process (Section 234).

Communities will receive periodic updates to the *Coordinator's Manual* and other CRS materials. They are encouraged to order the background publications (see Appendix E), attend CRS workshops, and ask their ISO/CRS Specialists for help understanding the CRS credit criteria for their current and planned activities.

## **115 Costs and Benefits**

Communities should prepare and implement those activities which best deal with their local problems, whether or not they are creditable under the CRS. Few, if any, of the CRS activities will produce premium reductions equal to or in excess of their implementation costs. In considering whether to undertake a new floodplain management activity, a community must consider all of the benefits the activity will provide (not just insurance premium reductions) in order to determine whether it is worth implementing.

### **a. Costs**

No fee is charged for a community to apply for participation in the CRS. The only costs the community incurs are those of implementing creditable floodplain management activities and the staff time needed to prepare the *CRS Application*.

### **b. Benefits**

It is important to note that reduced flood insurance rates are only one of the rewards a community receives from participating in the CRS. There are several other benefits.

First, the CRS floodplain management activities provide enhanced public safety, a reduction in damage to property and public infrastructure, avoidance of economic disruption and losses, reduction of human suffering, and protection of the environment.

Second, through the CRS a community can evaluate the effectiveness of its flood program against a nationally recognized benchmark.

Third, technical assistance in designing and implementing some activities is available through the CRS at no charge.

Fourth, a CRS community's flood program benefits from having an added incentive to maintain its flood programs over the years. The fact that the community's CRS status could be affected by the elimination of a flood-related activity or a weakening of the regulatory requirements for new development, should be taken into account by the governing board when considering such actions. A similar system used in fire insurance rating has had a strong impact on the level of support local governments give to their fire protection programs.

Fifth, implementing some CRS activities, such as floodplain management planning, can help a community qualify for certain federal assistance programs.

## 116 Natural and Beneficial Functions

Floodplains perform certain natural and beneficial functions that cannot be duplicated elsewhere. The CRS provides special credit for community activities that protect these functions, even though some of the activities may not directly reduce flood losses to insurable buildings. Two types of “natural and beneficial functions” warrant protecting floodplains in their natural state.

1. Floodplains in their natural state have an important impact on flooding. Flood waters can spread over a large area in floodplains that have not been encroached upon. This reduces flood velocities and provides flood storage to reduce peak flows downstream. Natural floodplains reduce wind and wave impacts and their vegetation stabilizes soils during flooding.
2. Floodplains in their natural state provide “ancillary beneficial functions” beyond flood reduction. Water quality is improved in areas where natural cover acts as a filter for runoff and overbank flows; sediment loads and impurities are also minimized. Natural floodplains moderate water temperature, reducing the possibility of adverse impacts on aquatic plants and animals.

Floodplains can act as recharge areas for groundwater and reduce the frequency and duration of low flows of surface water. They provide habitat for diverse species of flora and fauna, some of which cannot live anywhere else. They are particularly important as breeding and feeding areas.

The CRS encourages state, local, and private programs and projects that preserve or restore the natural state of floodplains and protect these functions. The CRS also encourages communities to coordinate their flood loss reduction programs with Habitat Conservation Plans and other public and private activities that preserve and protect natural and beneficial floodplain functions. Credits for doing this are found in the following activities:

**330 Outreach Projects:** credit is provided for outreach projects that include descriptions of the natural and beneficial floodplain functions of the community’s floodplains.

**420 Open Space Preservation:** extra credit is provided for open space areas that are preserved in their natural state, have been restored to a condition approximating their pre-development natural state, or have been designated as worthy of preservation for their natural benefits, such as being designated in a Habitat Conservation Plan.

**430 Higher Regulatory Standards:** regulations that protect natural areas during development or that protect water quality are credited.

**450 Stormwater Management:** erosion and sediment control and water quality requirements for projects that affect stormwater runoff are credited.

510 Floodplain Management Planning: extra credit is provided for plans that address floodplain natural resources and that are coordinated with a community's Habitat Conservation Plan.

## **117 CRS Activities**

The *CRS Schedule* describes the 18 floodplain management activities credited by the Community Rating System (CRS) and the documentation required to receive credit for each activity. The credits and formulae used to calculate credit are also included. These activities are divided into four categories.

### **Public Information (Series 300)**

This series credits programs that advise people about the flood hazard, flood insurance, and ways to reduce flood damage. These activities also provide data needed by insurance agents for accurate flood insurance rating. They generally serve all members of the community and work toward all three goals of the CRS.

### **Mapping and Regulations (Series 400)**

This series credits programs that provide increased protection to new development. These activities include mapping areas not shown on the FIRM, preserving open space, enforcing higher regulatory standards, and managing stormwater. The credit is increased for growing communities. These activities work toward the first and second goals of the CRS, damage reduction and accurate insurance rating.

### **Flood Damage Reduction (Series 500)**

This series credits programs for areas in which existing development is at risk. Credit is provided for a comprehensive floodplain management plan, relocating or retrofitting floodprone structures, and maintaining drainage systems. These activities work toward the first goal of the CRS, damage reduction.

### **Flood Preparedness (Series 600)**

This series credits flood warning, levee safety, and dam safety programs. These activities work toward the first and third goals of the CRS, damage reduction and hazard awareness.

**NOTE:** *The CRS encourages communities to develop and implement locally pertinent programs that exceed the minimum criteria of the NFIP. It is the intent of the CRS to credit only those activities that are compliant with applicable federal, state, and local environmental laws and regulations, including the Endangered Species Act of 1973. Where this is an issue, it is the responsibility of the community to demonstrate that an activity complies with those laws or regulations.*

The CRS activities are not design standards for local floodplain management. The *Schedule* is an insurance tool that describes methods of calculating credit points for various community activities. The fact that the CRS does not provide a direct credit for some activities does not mean that they should not be implemented by communities that need them.

Some activities and elements are not directly recognized by the CRS for one of three reasons:

1. They do not directly impact buildings that can be insured under the NFIP (e.g., uninsurable items such as streets and land values);
2. They are recognized by other aspects of the flood insurance rating program (e.g., flood control projects that result in revised FIRMs reduce flood insurance premiums in protected areas); or
3. The impact of an activity cannot be measured for CRS credit (e.g., preserving floodplains for aesthetic reasons).

## **118 Uniform Minimum Credit**

Many communities can qualify for “uniform minimum credit” whereby a state or regional agency can apply for a CRS activity that it is implementing on behalf of its communities. For example, several Florida water management districts enforce their own stormwater management regulations. A community in one of those districts that applies to the CRS will qualify for its district’s stormwater management credit.

If the community has its own program that deserves more credit points, it may apply for more than the uniform minimum credit points. This approach saves time and money for everyone involved. Agencies or communities interested in uniform minimum credits should contact their FEMA Regional Office or ISO/CRS Specialist for more information (see Appendix A).

## **119 All-Hazard Mitigation**

Communities with flood problems are also likely to be threatened by other natural and technological hazards. The staff and programs that address flooding may also be responsible for protecting the community from earthquakes, hurricanes, landslides, drought, hazardous materials incidents, and terrorism. Similarly, staff that work in programs related to other hazards may be implementing activities that could support floodplain management programs.

FEMA supports an all-hazards approach to mitigation, as does the CRS. It makes economic sense that mitigation programs address as many hazards as are appropriate. An all-hazards approach also ensures that staff, programs, construction standards, and public information messages are consistent and mutually supportive.

The CRS has become an important tool for mitigation as well as a mechanism for integrating mitigation with flood 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. For example, adoption and enforcement of strong building codes as measured by the insurance industry's Building Code Effectiveness Grading Schedule integrates building code enforcement into the industry's premium rates.

The CRS has served as a model for all-hazards pre-disaster mitigation activities. Several local officials have reported that the CRS was the blueprint for organizing their program to build a more disaster-resistant community.

The 2006 edition of the *CRS Coordinator's Manual* highlights many opportunities for expanding a flood-only orientation to address other hazards. These include:

- The 300 series of public information activities credits advising people about the risk of flooding and other hazards and the mitigation measures they can take to protect their properties;
- Under Activity 340 (Hazard Disclosure), disclosure of other hazards (DOH) credits advising potential purchasers of property that there may be other hazards that could affect the property, such as erosion, subsidence, or wetlands;
- The credit for placing references in the public library under Activity 350 (Flood Protection Assistance) includes extra points for including documents on special flood-related hazards such as subsidence and coastal erosion;
- Section 401 has an overview of the additional credits that are provided for mapping and managing seven special hazards:
  - Uncertain flow paths (alluvial fans, moveable bed streams, and other floodplains within which the channel moves during a flood),
  - Closed basin lakes,
  - Ice jams,
  - Land subsidence,
  - Mudflow hazards,
  - Coastal erosion, and
  - Tsunamis.
- Activity 420 (Open Space Preservation) encourages communities to keep hazardous areas open and undeveloped;
- Credit is provided for the International Series of building codes (which have improved protection standards for flooding, wind, and other hazards over previous model codes) in Activity 430 (Higher Regulatory Standards), Section 431.m;
- Activity 430 (Higher Regulatory Standards) also credits extending V-Zone standards for coastal storm surge and wind protection farther inland to include coastal A Zones (Section 431.p);

- Section 430LD (Land Development Criteria) increases the credit for land use and development regulations in areas of mapped special hazards;
- In Activity 440 (Flood Data Maintenance), additional credit is provided for showing areas subject to other natural hazards in the GIS or database management program;
- More credit points are available for including other hazards in a mitigation plan that qualifies for a floodplain management plan under Activity 510 (Floodplain Management Planning); and
- Local warning and public information activities directed toward storms and tsunamis are credited under the StormReady and TsunamiReady element in Activity 610 (Flood Warning Program).

[This page intentionally blank.]

## 120 CRS CREDIT POINTS

### 121 Application for Credit

The Community Rating System provides for 10 classes, with Class 1 having the most premium credit and communities in Class 10 receiving none. A community's CRS class is based on the number of credit points calculated for the activities that are undertaken to reduce flood losses, facilitate accurate flood insurance rating, and promote the awareness of flood insurance.

A community is automatically a Class 10 community unless it applies for a CRS classification and shows that the activities it is implementing warrant a better classification. A community may apply for CRS credit by submitting a *CRS Application* with appropriate documentation to its ISO/CRS Specialist. Application prerequisites and documentation are discussed in more detail in Section 210.

A community uses the *CRS Application* for its initial application for CRS classification. The community must have at least 500 points using the *CRS Application* to apply for CRS classification. As explained in Section 230, the final score will be calculated by the ISO/CRS Specialist after a review of the documentation and the community's implementation of its activities at the verification visit.

It is important that the community submit correct and complete materials needed to show what it is doing. Only through a review of the accompanying documentation can the Department of Homeland Security's Federal Emergency Management Agency (FEMA) and ISO determine the credit points that should be provided.

A community should apply only for those activities it is actively undertaking and those it knows it can implement in accordance with the *Schedule*. A community should not be overly ambitious and overestimate its first year credit points at the risk of losing credit later for activities it is unable to implement. For example, no credit is provided for draft ordinances. Communities can only receive credit for regulations that have been enacted and enforced.

### 122 Activity Credit Points

The activities and their maximum credit points are shown in Table 120-1. The third column shows the average credit points received by previous years' applicants for each activity. The averages are based upon the number of applicants for each activity, NOT the total number of applicants for the CRS. The fourth column shows the percentage of all applicants that received credit for each activity as of May 1, 2005. For example, the average of 90 points for Activity 330 is the average score received under the 2002 manual for the 86% of the communities that received credit under Activity 330 as of May 1, 2005.

Communities should note the average credits for these activities. They provide a better indication of what an applicant can expect for an activity than do the maximum points available. For example, in order to receive 3,200 points for Activity 520 (Acquisition and Relocation), a community must have removed 100% of the structures from the Special Flood

Hazard Areas (SFHAs) shown on its FIRM. The 13% of all communities that applied for credit under Activity 520 averaged 213 points received for their acquisition and relocation work. At least one community has received 2,084 points for Activity 520.

**Table 120-1. Credit points awarded for CRS activities.**

ACTIVITY	MAXIMUM POSSIBLE POINTS <sup>1</sup>	AVERAGE POINTS EARNED <sup>2</sup>	MAXIMUM POINTS EARNED <sup>3</sup>	PERCENTAGE OF COMMUNITIES CREDITED <sup>4</sup>
300 Public Information Activities				
310 Elevation Certificates	162	69	142	100%
320 Map Information Service	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	93	813	6%
540 Drainage System Maintenance	330	232	330	69%
600 Flood Preparedness Activities				
610 Flood Warning Program	255	93	200	30%
620 Levee Safety	900	198	198	1%
630 Dam Safety	175	66	87	81%

<sup>1</sup> The maximum possible points are based on the 2006 *CRS Coordinator's Manual*.

<sup>2</sup> The average points earned are based on communities' scores as of May 1, 2005, and do not include growth adjustments or the new credits provided in the 2006 *CRS Coordinator's Manual*.

<sup>3</sup> The maximum points earned are the highest scores attained by a community as of May 1, 2005 and do not include growth adjustments. In some cases many communities have attained the maximum points listed.

<sup>4</sup> The percentage of communities credited is as of May 1, 2005.

## 123 A Quick Check of a Community's Potential CRS Credit

### a. Purpose

A minimum of 500 points is needed to receive a CRS classification of Class 9, which will reduce premium rates. This quick check provides some basic information for local officials to determine if their communities will have enough points to attain Class 9.

If a community does not qualify for at least 500 points, it may want to initiate some new activities in order to attain Class 9. For example, some of the public information activities can be implemented for a very low start-up cost. The quick check can identify where points can be earned for new activities.

### b. Quick Check Instructions

The section numbering system is used throughout all CRS publications. Sections 300 through 600 describe the 18 creditable activities. Activity 310 (Elevation Certificates) is required of all CRS communities and Activity 510 (Floodplain Management Planning) is required of designated repetitive loss communities. The rest of the activities are optional. Only the elements most frequently applied for are listed here in the quick check.

If the activity is applicable, the average community score (which is in parentheses) should be entered in the blank to the left to provide a rough estimate of the community's initial credit points.

### c. Minimum Requirements

**Section 211 (Prerequisites)** The community must be in the Regular Phase of the NFIP and be in full compliance with the minimum requirements of the NFIP. The application must include a letter from the FEMA Regional Office confirming that the community is meeting all of the latest NFIP requirements.

**Activity 310 (Elevation Certificates)** All CRS communities must maintain FEMA's elevation certificates for all new and substantially improved construction in the floodplain after the date of application for CRS classification.

**Sections 501–503 (Repetitive Loss Areas)** A community with properties that have received repeated flood insurance claim payments must map the areas affected. Communities with 10 or more such properties must prepare, adopt, and implement a plan to reduce damage in repetitive loss areas. The FEMA Regional Office can tell whether this applies to any given community.

**d. Other Activities**

If the activity is applicable, the average community score (in parentheses) should be entered in the blank at left to provide a rough estimate of the community’s initial credit points.

**Public Information Activities (Series 300)**

- (69) 310 (Elevation Certificates) Maintain FEMA elevation certificates for all new construction. Maintaining them after the date of CRS application is a minimum requirement for any CRS credit.
  
- (138) 320 (Map Information Service) Respond to inquiries to identify a property’s FIRM zone and publicize this service.
  
- (90) 330 (Outreach Projects) Send information about the flood hazard, flood insurance, and flood protection measures to floodprone residents or all residents of the community.
  
- (19) 340 (Hazard Disclosure) Real estate agents advise potential purchasers of floodprone property about the flood hazard; or regulations require a notice of the flood hazard.
  
- (24) 350 (Flood Protection Information) The public library maintains references on flood insurance and flood protection.
  
- (53) 360 (Flood Protection Assistance) Give inquiring property owners technical advice on protecting their buildings from flooding, and publicize this service.

**Mapping and Regulatory Activities (Series 400)**

- (86) 410 (Additional Flood Data) Develop new flood elevations, floodway delineations, wave heights, or other regulatory flood hazard data for an area that was not mapped in detail by the flood insurance study; or have the flood insurance study’s hydrology or allowable floodway surcharge based on a higher state or local standard.
  
- (191) 420 (Open Space Preservation) Guarantee that a portion of currently vacant floodplain will be kept free from development.
  
- (166) 430 (Higher Regulatory Standards) Require freeboard; require soil tests or engineered foundations; require compensatory storage; zone the floodplain for minimum lot sizes of 1 acre or larger; regulate to protect sand dunes; or have regulations tailored to protect critical facilities or areas subject to special flood hazards (e.g., alluvial fans, ice jams, or subsidence).

\_\_\_\_\_ TOTAL FIRST PAGE

- \_\_\_\_\_ (79) 440 (Flood Data Maintenance) Keep flood and property data on computer records; use better base maps; or maintain elevation reference marks. ■
- \_\_\_\_\_ (98) 450 (Stormwater Management) Regulate new development throughout the watershed to ensure that post-development runoff is no worse than pre-development runoff. ■

**Flood Damage Reduction Activities (Series 500)**

- \_\_\_\_\_ (115) 510 (Floodplain Management Planning) Prepare, adopt, implement, and update a comprehensive plan using a standard planning process. ■
- \_\_\_\_\_ (213) 520 (Acquisition and Relocation) Acquire and/or relocate floodprone buildings so that they are out of the floodplain. ■
- \_\_\_\_\_ (93) 530 (Flood Protection) Document floodproofed or elevated pre-FIRM buildings. ■
- \_\_\_\_\_ (232) 540 (Drainage System Maintenance) Conduct periodic inspections of all channels and retention basins and perform maintenance as needed. ■

**Flood Preparedness Activities (Series 600)**

- \_\_\_\_\_ (93) 610 (Flood Warning Program) Provide early flood warnings to the public and have a detailed flood response plan keyed to flood crest predictions. ■
- \_\_\_\_\_ (198) 620 (Levee Safety) Maintain levees that are not credited with providing base flood protection. ■
- \_\_\_\_\_ (66) 630 (Dam Safety) All communities in a state with an approved dam safety program receive this credit.

\_\_\_\_\_ TOTAL SECOND PAGE

\_\_\_\_\_ TOTAL FIRST PAGE

\_\_\_\_\_ TOTAL ESTIMATED POINTS FOR THE COMMUNITY

If this quick check shows that the community could receive at least 500 points, it may want to check its status in the NFIP with the FEMA Regional Office (see Appendix A) and apply for a CRS classification using the *CRS Application*.

## 124 Publications

Additional information, reference materials, and examples can be found at the CRS Resource Center at <http://training.fema.gov/EMIWEB/CRS/>.

The *CRS Application* is used to apply for an initial CRS classification. The basis for CRS credit and community classification is the *Schedule*, which is contained within the *Coordinator's Manual*. The *Commentary* explains and amplifies the *Schedule* and provides examples. The *Coordinator's Manual* is a document a community should have if it wishes to submit a *CRS Application* and MUST USE for modifications for a better CRS classification.

There are a variety of publications available, including activity worksheets, example plans, and publications on credit for mapping and management of special flood-related hazards. These publications are described in Appendix E of the *CRS Application* and the *Coordinator's Manual*. They are available AT NO COST from

Flood Publications  
NFIP/CRS  
P.O. Box 501016  
Indianapolis, IN 46250-1016  
(317) 848-2898  
Fax: (317) 848-3578

## 130 GLOSSARY

Unless otherwise noted, all terms used by the Community Rating System (CRS) are the same as those defined in the National Flood Insurance Program Rules and Regulations (44 *CFR* 59.1).

**A Zone:** See “Zone A.”

**Activity:** A floodplain management activity for which Community Rating System credit has been established.

**Allowable surcharge:** The acceptable limit of increased flood elevation in the floodway due to obstruction of the floodway fringe.

**Alluvial fan:** An area at the base of a valley where the slope flattens out, allowing the floodwater to decrease in speed and spread out, dropping sediment over a fan-shaped area. The Community Rating System credits alluvial fan flooding under the “uncertain flow paths” hazard in a special CRS publication.

**B Zone:** See “Zone B.”

**Base flood:** The flood having a 1% chance of being equaled or exceeded in any given year, also known as the “100-year” or “1% chance” flood. The base flood is a statistical concept used to ensure that all properties subject to the National Flood Insurance Program are protected to the same degree against flooding.

**BFE:** Base flood elevation. The elevation of the crest of the base or 100-year flood.

**Building:** As used by the Community Rating System, the term is the same as “structure” in the National Flood Insurance Program regulations (44 *CFR* 59.1). For CRS purposes, a building is a structure that is walled and roofed, principally above ground and permanently affixed to a site. The term includes a manufactured (mobile) home on a permanent foundation (such as a poured masonry slab, foundation walls, piers, or block supports) so that no weight is carried by the wheels and axles. “Walled and roofed” means that a building has two or more rigid exterior walls in place and is adequately anchored so that it will resist flotation, collapse, and lateral movement. “Principally above ground” means that at least 51% of the actual cash value of the building, including equipment and machinery that are part of the building, is above ground. The NFIP only insures “buildings.” For the purpose of counting buildings for adjusting CRS credit points, the term “building” does not include accessory structures. For example, a lot with a home, garage, and shed is counted as one building.

**C Zone:** See “Zone C.”

**CBRA:** The Coastal Barrier Resources Act of 1982 (pronounced “cobra”).

**CEO:** The Chief Executive Officer of a community, i.e., the official who is charged with the authority to implement and administer laws, ordinances, and regulations for the community. The CEO may be a mayor, city or county manager, or chair of a county board.

**Coastal:** Relating to the coastlines and bays of the tidal waters of the United States or the shorelines of the Great Lakes. Under the Community Rating System, there are four coastal areas eligible for creditable coastal activities: the coastlines and bays of the Atlantic, Pacific, Gulf of Mexico, and Great Lakes coasts. The term does not include riverine areas.

**Coastal Barrier Resources System:** A set of “undeveloped coastal barriers” and “otherwise protected areas” along the U.S. coast (including the Great Lakes) designated by Congress under the Coastal Barrier Resources Act of 1982 (CBRA). Most expenditures of federal funds are prohibited within the Coastal Barrier Resources System.

**Coastal erosion:** Coastal erosion is the wearing away of land masses caused primarily by waves on the two oceans, the Gulf of Mexico, or the Great Lakes, and major embayments to these bodies of water.

**Coastal erosion-prone area:** The coastal areas within which waves are anticipated to cause significant erosion and shoreline retreat within the next 60 years.

**Coastal high hazard flooding:** A condition of flooding subject to high velocity waters, including, but not limited to, hurricane wave wash or tsunamis. Coastal high hazard flooding is mapped as a Zone V on a Flood Insurance Rate Map. Coastal flooding without the high velocity hazard is mapped as a Zone A.

**Community:** A city, village, town, county, township, Indian tribe or authorized tribal organization, Alaska Native village or authorized native organization, or other local government with the statutory authority to enact floodplain regulations and participate in the National Flood Insurance Program.

**Contour:** A line of equal elevation on a topographic (contour) map.

**Critical facilities:**

- Structures or facilities that produce, use, or store highly volatile, flammable, explosive, toxic and/or water-reactive materials;
- Hospitals, nursing homes, and housing likely to contain occupants who may not be sufficiently mobile to avoid death or injury during a flood;
- Police stations, fire stations, vehicle and equipment storage facilities, and emergency operations centers that are needed for flood response activities before, during, and after a flood; and
- Public and private utility facilities that are vital to maintaining or restoring normal services to flooded areas before, during, and after a flood.

**CRS:** Community Rating System.

**CRS Application:** The publication that is generally used by a community to apply for its initial Community Rating System classification. This publication includes a description of the CRS activities, application procedures, and the documentation the community needs to provide with its application.

**CRS classification:** A rating of a community's floodplain management program according to the *CRS Schedule*. The premium rate credits for each class are listed in Appendix C. A community that has not applied for Community Rating System classification is a Class 10 community.

**CRS Commentary:** The portion of the *CRS Coordinator's Manual* that explains the Community Rating System in more detail than the *CRS Schedule*. It includes instructions on how to apply for a CRS classification, along with references on and examples of the creditable activities.

**CRS Coordinator:** A local official designated by the Chief Executive Officer of the community to coordinate the community's Community Rating System application and verification.

**CRS Coordinator's Manual:** A publication for local officials that includes the Community Rating System *CRS Schedule*, *CRS Commentary*, and activity worksheets. It is available from FEMA or ISO.

**CRS Schedule:** The portion of the *CRS Coordinator's Manual* that describes the Community Rating System and how credit points are calculated to determine a community's CRS classification.

**Cycle:** A periodic review, scoring, and verification of a community's Community Rating System activities, normally done on a 3- or 5-year cycle.

**D Zone:** See "Zone D."

**Datum:** A reference surface used to ensure that all elevation records are properly related. Many communities have their own datum, which was developed before there was a national standard. The National Flood Insurance Program uses the National Geodetic Vertical Datum (NGVD) of 1929 and the North American Vertical Datum (NAVD) of 1988, which are in relation to sea level. The Flood Insurance Rate Map indicates the datum that applies to the community.

**Development:** Any human-caused change to improved or unimproved real estate including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operations.

**Discharge:** The amount of water that passes a point in a given period of time. Rate of discharge is usually measured in cubic feet per second (cfs).

**Element:** A discrete piece of a floodplain management program that is credited as part of a Community Rating System activity.

**FEMA:** The Department of Homeland Security’s Federal Emergency Management Agency. Most of the National Flood Insurance Program field work and community coordination is done by the 10 FEMA Regional Offices, which are listed in Appendix A.

**FIRM:** Flood Insurance Rate Map. An official map of a community, on which FEMA has delineated both the Special Flood Hazard Areas and the risk premium zones applicable to the community. Most FIRMs include detailed floodplain mapping for some or all of a community’s floodplains. In most cases, the date of the first FIRM issued to a community is the date the community entered the Regular Program of the National Flood Insurance Program.

**Flood Insurance Study:** A report published by FEMA for a community in conjunction with the community’s Flood Insurance Rate Map. The study contains such background data as the base flood discharges and water surface elevations that were used to prepare the FIRM. In most cases, a community FIRM with detailed mapping will have a corresponding flood insurance study.

**Floodplain:** Any land area susceptible to being inundated by flood waters from any source. A Flood Insurance Rate Map identifies most, but not necessarily all, of a community’s floodplain as the Special Flood Hazard Area.

**Floodproofing:** Protective measures added to or incorporated in a building that is not elevated above the base flood elevation to prevent or minimize flood damage. “Dry floodproofing” measures are designed to keep water from entering a building. “Wet floodproofing” measures minimize damage to a structure and its contents from water that is allowed into a building.

**Floodway:** The channel of a river and the portion of the overbank floodplain that carries most of the base flood. The floodway must be kept open so that floods can proceed downstream and not be obstructed or diverted onto other properties. The National Flood Insurance Program regulations allow construction in the floodway provided that it does not obstruct flood flows or increase flood heights.

**Flood fringe:** The portion of the floodplain lying on either side of the floodway.

**Freeboard:** A margin of safety added to the base flood elevation to account for waves, debris, miscalculations, or lack of data.

**Hydrology:** The science dealing with the waters of the earth. A flood discharge is developed by a hydrologic study.

**ICC:** Increased Cost of Compliance, a flood insurance claim provision that helps fund the cost of bringing a flood-damaged building into compliance with floodplain management standards.

**ISO:** The Insurance Services Office, Inc., a corporation that conducts Community Rating System application review, verification of community credit, and program improvement tasks for FEMA.

**ISO/CRS Specialist:** An ISO technician responsible for reviewing community applications for Community Rating System classification and verifying implementation of activities credited by the CRS. The name and telephone number of the ISO/CRS Specialist for a state can be obtained from the FEMA Regional Office (see Appendix A).

**NAVD:** North American Vertical Datum of 1988. The national datum that is replacing NGVD to set flood and ground elevations for the Flood Insurance Rate Maps.

**Natural and beneficial functions of floodplains:**

- a. The functions associated with the natural or relatively undisturbed floodplain that moderate flooding, retain flood waters, reduce erosion and sedimentation, and mitigate the effects of waves and storm surges from storms; and
- b. Ancillary beneficial functions, including maintenance of water quality, recharge of ground water, and provision of fish and wildlife habitat.

**NFIP:** National Flood Insurance Program.

**NGVD:** National Geodetic Vertical Datum of 1929, the national datum used by the National Flood Insurance Program. NGVD is based on mean sea level. It was known formerly as the “Mean Sea Level Datum of 1929 (MSL).”

**Ponding:** A flooding condition in flat areas caused when rain runoff drains to a location that has no ready outlet. Ponding water usually stands until it evaporates, seeps into the ground, or is pumped out.

**Post-FIRM building:** For insurance rating purposes, a post-FIRM building was constructed or substantially improved after December 31, 1974, or after the effective date of the initial Flood Insurance Rate Map of a community, whichever is later. A post-FIRM building is required to meet the National Flood Insurance Program’s minimum Regular Program flood protection standards.

**Pre-FIRM building:** For insurance rating purposes, a pre-FIRM building was constructed or substantially improved on or before December 31, 1974, or before the effective date of the initial Flood Insurance Rate Map of the community, whichever is later. Most pre-FIRM buildings were constructed without taking the flood hazard into account.

**Regular Program:** Also called the Regular Phase. The phase of community participation in the National Flood Insurance Program that begins on the date of the Flood Insurance Rate Map or when the community adopts an ordinance that meets the minimum requirements of the NFIP and adopts the technical data provided with the FIRM, whichever is later. Nearly all communities participating in the NFIP are in the Regular Program.

**Regulatory floodplain:** For purposes of the Community Rating System, the floodplain that is regulated by a community, including the Special Flood Hazard Area. It covers a larger area

in communities that regulate development in flood problem areas outside the SFHA as mapped by FEMA.

**Repetitive loss community:** For purposes of the Community Rating System, a community with one or more repetitive loss properties.

**Repetitive loss property:** For purposes of the Community Rating System, a property for which two or more National Flood Insurance Program losses of at least \$1,000 each have been paid within any 10-year rolling period since 1978.

**Retrofitting:** Retrofitting techniques include floodproofing, elevation, construction of small levees, and other modifications made to an existing building or its yard to protect it from flood damage.

**Riparian ecosystem:** A distinct association of flora, fauna, and soil occurring along a river, stream, or other body of water and dependent upon high water tables and occasional flooding to maintain its viability. These areas often exhibit high biological productivity and species diversity. Although riparian ecosystems are closely associated with a body of water, they may extend beyond the Special Flood Hazard Area.

**Riverine:** Of or produced by a river. Riverine floodplains have readily identifiable channels. Floodway maps can only be prepared for riverine floodplains.

**Sand dunes:** Naturally occurring accumulations of sand that form ridges or mounds landward of a beach. The Community Rating System only credits sand dunes in coastal areas.

**Schedule:** See “*CRS Schedule*.”

**Sensitive area:** An area defined by state or local regulations as deserving special protection because of unique natural features or its value as habitat for a wide range of species of flora and fauna. A sensitive area is subject to more restrictive development regulations than other floodplains or wetlands. Although sensitive areas are often closely associated with a body of water, they may extend beyond the Special Flood Hazard Area.

**SFHA:** Special Flood Hazard Area.

**Sheet flow:** A condition of flooding where there is moving water but no identifiable channel. Flooding depths are usually shallow (less than 3 feet). Sheet flow may have a high velocity, as on alluvial fans.

**Special Flood Hazard Area (SFHA):** The base floodplain delineated on a Flood Insurance Rate Map. The SFHA is mapped as a Zone A (see definition). In coastal situations, Zone V (see definition) is also a part of the SFHA. The SFHA may or may not encompass all of a community’s flood problems.

**Special flood-related hazards:** For the purposes of the Community Rating System, the term includes terrain features or special hazards that accompany or aggravate flooding, as listed in Section 401.

**Stakeholders:** Business leaders, civic groups, academia, non-profit organizations, major employers, managers of critical facilities, farmers, landowners, developers, and others whose actions affect hazard mitigation.

**Substantial damage:** Damage of any origin sustained by a building whereby the cost of restoring the building to its before-damage condition would equal or exceed 50% of the market value of the building before the damage occurred.

**Substantial improvement:** Any reconstruction, rehabilitation, addition, or other improvement to a building, the cost of which equals or exceeds 50% of the market value of the building before the start of construction of the improvement.

**Surcharge:** An increase in flood elevation due to obstruction of the floodplain that reduces its conveyance capacity.

**Tsunami:** A large wave caused by an underwater earthquake or volcano that can raise water levels on the ocean shore as much as 15 feet. Tsunamis are discussed in more detail in a special Community Rating System publication.

**Uncertain flow paths:** Channels that move during a flood, including alluvial fans and moveable bed streams. They are discussed in more detail in a special Community Rating System publication.

**V Zone:** See “Zone V.”

**Variable:** A term used in the formulae for calculating Community Rating System credit. For each element, there are one or more variables, which often include the acronym for the element.

**X Zone:** See “Zone X.”

**Zone A:** The Special Flood Hazard Area (except coastal V Zones) shown on a community’s Flood Insurance Rate Map. There are seven types of A Zones:

- A:** SFHA where no base flood elevation is provided.
- A#:** Numbered A Zones (e.g., A7 or A14), SFHA where an older FIRM shows a base flood elevation in relation to a national datum.
- AE:** SFHA where base flood elevations are provided. AE Zone delineations are used on newer FIRMs instead of A# Zones.

**AO:** SFHA with sheet flow, ponding, or shallow flooding. Base flood depths (feet above grade) are provided.

■ **AH:** Shallow flooding SFHA. Base flood elevations in relation to a national datum are provided.

**AR:** A temporary designation for an area where a flood control system that no longer provides protection from the base flood is expected to be improved so it will provide protection to the base flood again in the future. This zone is not considered a Special Flood Hazard Area or “regulatory floodplain” for Community Rating System purposes.

**A99:** A mapped floodplain that will be protected by a federal flood protection system where construction has reached specified statutory milestones. This zone is not considered a Special Flood Hazard Area or “regulatory floodplain” for Community Rating System purposes

■ **Zone B:** Area of moderate flood hazard, usually depicted on older Flood Insurance Rate Maps as between the limits of the base and 500-year floods of the primary source of flooding. B Zones may have local, shallow flooding problems. B Zones are also used to designate areas protected by levees and base floodplains of little hazard, such as those with average depths of less than 1 foot.

■ **Zone C:** Area of minimal flood hazard, usually depicted on older Flood Insurance Rate Maps as above the 500-year flood level of the primary source of flooding. C Zones may have local, shallow flooding problems. B and C Zones may have flooding that does not meet the criteria to be mapped as a Special Flood Hazard Area, especially ponding and local drainage problems.

**Zone D:** Area of undetermined but possible flood hazard.

**Zone V:** The Special Flood Hazard Area subject to coastal high hazard flooding. There are three types of V Zones: V, V#, and VE, and they correspond to the A Zone designations.

**Zone X:** Newer Flood Insurance Rate Maps show Zones B and C (see above) as Zone X. The shaded Zone X corresponds to a Zone B and the unshaded Zone X corresponds to a Zone C.