





CRS Communities are climate resilient



Loss Avoidance Study: Eastern Missouri, Building Acquisition

Summary:

Hazard: Flood

Project: Acquisition

Cost: \$44 Million

Loss avoided: \$93 Million

• ROI: 2.12

Loss Avoidance Study: Iowa Building Modification Projects

Summary:

Hazard: Flood

Project: Acquisition/Relocation/Elevation

• Cost: \$24 Million

Loss avoided: \$24.3 Million

• ROI: 1.02

Loss Avoidance Study: Higher Regulatory Standards, 2013 Colorado Floods

Summary:

Hazard: Flood

 Project: Regulatory standards/Flood Control

Cost: \$5.6 Million

Loss avoided: \$22 Million

• ROI: 3.91

Hazard Mitigation Assistance Loss Avoidance Study Summaries | FEMA.gov

Mitigation saves lives and \$

Both above-code design and publicsector mitigation for riverine floods result in increased occupant safety, reduced business interruption, and beneficial economic impacts for the community

- Above-code design and public sector mitigation grant projects for riverine floods save more than they cost.
- The losses avoided by federally funded riverine flood mitigation have a 7x return on investment).

	al Benefit-Cost Ratio (BCR) Per Peril numbers in this study have been rounded Overall Hazard Benefit-Cost Ratio	Beyond Code Requirements \$4:1	Federally Funded \$6:1
	Riverine Flood	\$5:1	\$7:1
	Hurricane Surge	\$7:1	Too few grants
	Wind	\$5:1	\$5:1
感	Earthquake	\$4:1	\$3:1
1	Wildland-Urban Interface Fire	\$4:1	\$3:1

Source: Mitigation Saves Fact Sheet (fema.gov)

CRS Classes, Points & Premium Reductions

300 Public Information	Activity 310 (Elevation Certificates) Maintaining construction certificates and making them available to the public	Activity 320 (Map Information Service) Providing Flood Insurance Rate Maps (FIRMS) and other map information and publicizing that service.	Activity 340 (Hazard Disclosure) Real estate agents' advising potential purchasers of floodprone property about the flood hazard, and local regulations requiring disclosure of the hazard	Activity 350 (Flood Protection Information) Maintaining a community public library and/or website that contains flood-related information	Activity 360 (Flood Protection Assistance) Advising property owners and renters about how to protect buildings from flooding and publicizing that service	Activity 370 (Flood Insurance Promotion) Assessing flood insurance coverage in the community and implementing a plan to promote flood insurance
400 Mapping & Regulations	Activity 410 (Floodplain Mapping) — Developing regulatory maps for areas not mapped by FEMA or flood mapping based on future conditions, detailed topography, or other standards	Activity 420 (Open Space Preservation) Keeping flood prone land free of development	Activity 430 (Higher Regulatory Standards) Regulations that exceed the NFIP's minimum criteria for floodplain management	Activity 440 (Flood Data Maintenance) Gathering and/or maintaining more accessible, useful, and/or accurate floodplain data for regulation, insurance rating, hazard disclosure, and property appraisals	Activity 450 (Stormwater Management) Watershed planning and regulations that prevent future development from increasing flood hazards or diminishing water quality	
500 Flood Damage Reduction	Activity 510 (Floodplain Management Planning) Adoption of flood hazard mitigation and/or natural functions plans using the CRS planning process, and/or conducting repetitive loss area analyses	Relocation) Acquiring insurable buildings and relocating them out of the	Activity 530 (Flood Protection) Protecting buildings from flood damage by floodproofing, elevation, or minor structural projects	Activity 540 (Drainage System Maintenance) Annual inspections of channels and retention basins, and maintenance of the drainage system's flood-carrying and storage capacity		

600 Warning & Response

Activity 610 (Flood Warning and Response) Timely warning of flood threats and coordinating flood

response activities.

Activity 620

(Levees) Annual levee inspection programs and plans to respond to floods caused by levee failure

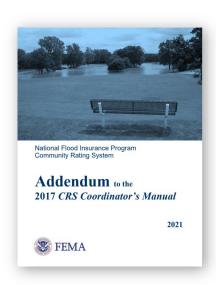
Activity 630

(Dams) State dam safety programs and plans to respond to flooding caused by dam failure.

ties

- ion
- Regulations
- 500 Flood Damage Reduction
- 600 Warning & Response
 - 19 Activities
 - 94 Elements

Prerequisites and Low maintenance CRS Class 9





• Prerequisites:

- Class 9 Activity 310 requires:
 - 90% accuracy/two chances to achieve
- Class 8 or Better Freeboard Requirement:
 - A one-foot freeboard over BFE (BFE+1)

Entry into CRS Low maintenance Class 9:

- Several states have freeboard or other state mandated higher standards that can be used for CRS credits.
- Many communities can join the CRS at a Class 9 or 8 with what they are already doing

Category	NFIP Minimum Requirements	State-promoted Higher Standards Missouri	State-promoted Higher Standards Kansas	State-promoted Higher Standards Iowa	State-promoted Higher Standards Nebraska
Lowest Floor Elevation	Lowest Floor to or above BFE	NFIP Minimum State of MO recommends that communities adopt 1 foot of freeboard	Plus 1 ft. freeboard above BFE	Plus 1 ft. freeboard above BFE	Plus 1 ft. freeboard above BFE
Floodway Requirements	Development cannot increase BFE - zero rise in flood heights	NFIP Minimum	NFIP Minimum	No structure shall be used for human habitation.	No new or Substantially Improved residential structures in floodway
Variance Requirements	Community shall approve and/or disapprove variance requests	NFIP Minimum	Meets NFIP Minimum	State reviews/approves variance requests	NFIP Minimum
Review of Ordinances	FEMA approval	State approves ordinance Draft prior to community adoption & prior to FEMA review	State approves ordinance Draft prior to community adoption & prior to FEMA review	State approves ordinance Draft prior to community adoption & prior to FEMA review	NFIP Minimum
Floodplain Development Permit Requirements	Community shall review and issue floodplain development permits	Meets NFIP Minimum	State issues floodplain development approvals for stream obstructions, levees, and floodplain fills in excess of 1600 cubic yards, higher than 2 feet, less than 100 feet from other floodplain fills and fills not meeting State approved design criteria and requires NFIP community floodplain development permit	State issues floodplain development permits for rural areas: criteria - drainage areas of 10 square miles or more and bridges in areas draining 100 square miles or more urban areas: criteria - drainage areas of 2 square miles or more.	NFIP Minimum /State approves ordinance Draft and FEMA approval then community adopt
Floodplain Mapping	Use best available data when mapping not provided by FEMA	NFIP Minimum	NFIP Minimum	Obtain mapping from Department of Natural Resources if not provided by FEMA	NFIP Minimum
Residential Structure Requirements	Elevate lowest floor to or above BFE	NFIP Minimum	NFIP Minimum	Must have access during 1% annual chance flood by wheeled vehicle	NFIP Minimum
Substantial Improvement Definition	Repair, reconstruction or improvement that exceeds 50% or more of the market value before improvement or repair	NFIP Minimum	NFIP Minimum	Any addition of 25% or more floor space. All post-FIRM additions are cumulative improvements	NFIP Minimum

Low maintenance CRS Class 9 in NE

Example A: Strong Open space and GIS

- 310 EC, required, (38 points) Class 9 Prerequisite.
- 430 FRB, 1 foot freeboard (100 points) (Class 8 prerequisite).
 - 2021 or 2018 ICC building codes (up to 48 points)
- 330 OP, (200 points) can be accomplished in many ways.
 - Community brochures at 5 locations (50 points),
 - social media efforts 5 times per year (100 points),
 - Do not dump signs or fish emblems at 5 locations (10 points),
 - Annual presentation or participation in annual event with both brochures (20 points),
 - utility bill insert 2 times per year (24 points)
- 440 GIS, up to (160 points)

SUM: Up to 546 points*

Example B: Strong stormwater and high scoring mitigation plan activities

- 310 EC, required, (38 points) Prerequisite.
- 430 FRB 1 foot freeboard 100 points.
 - 2021 or 2018 building codes up to 48 points
- 450 Stormwater, would anticipate 100 plus points for how I have seen this element perform in Iowa. 10 points for erosion control and 20 points for water quality
- 510 Mitigation plan; (anticipate 200 plus points for IA communities) based on participation (max available = 382)

Sum: Up to 516 points*

^{*} Annual review would be required for Activities 310, 430, and 510

What's required to enter the CRS

- Maintain Good Standing in the NFIP
- Submit a Letter of Interest (LOI) to State and FEMA Regional Staff
 - FEMA Regional Staff will verify good standing with the State
 - FEMA Regional Staff will authorize ISO staff to proceed with Community Coordination and CRS entry audit.
- Implement/Maintain creditable activities
 - CC Plan and correctness, update ordinance for M&E freeboard, etc.
- Complete ISO Annual Reviews (i.e., CC's/low floor elevation) and cycle visits 3/5-year basis depending on CRS Class

Benefits of Joining CRS







- The NFIP rewards CRS communities by reducing the cost of flood Insurance
 - Activities credited by the CRS provide direct benefits to the community, including enhanced public safety, reduction in flood damage and environmental protection
- Residents are reminded that the community is working to protect them from flood losses.
 - Public information activities will build a knowledgeable constituency interested in supporting and improving flood protection measures.

The Community Rating System

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CRS Updates

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CRSResources.org

https://www.fema.gov/floodplain-management/community-rating-system



CRS Updates

✓ Light introduction to FEMA's Community Rating System (CRS)

✓ CRS Credits and getting started

✓ CRS Class 9, 5% discount to flood insurance policy holders

✓ Resources





Introduction to the CRS Program

Goals

- 1. Reduce and avoid flood damage to insurable property
- 2. Strengthen and support the insurance aspects of the NFIP
- 3. Foster comprehensive floodplain management





Community Rating System

fema.gov/community-rating-system







Prepare for Disasters | Apply for Assistance | Get Flood Insurance

Disasters & Assistance >

Grants V

Floods & Maps 🗸

Emergency Management 🗸

About ~

Work With Us ~

G Floodplain Management

Community Rating System

Español 简体中文 Tiếng Việt

National Flood Insurance Program Community Rating System

The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP). Over 1,500 communities participate nationwide.

In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program:

- 1. Reduce and avoid flood damage to insurable property
- Strengthen and support the insurance aspects of the National Flood Insurance Program
- 3. Foster comprehensive floodplain management



The brochure, <u>Community Rating System: The Local Official's</u>
<u>Guide to Saving Lives, Preventing Property Damage and Reducing</u>
<u>the Cost of Flood Insurance</u> introduces the Community Rating
System as a way of promoting the awareness of flood insurance.

Manage Floodplain Risk

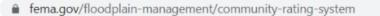
Get Financial Help

Intergovernmental Collaboration

Floodplains & Wildlife Conservation







Community Rating System Coordinator's Manual

The Coordinator's Manual is the guidebook for the Community Rating System. The Coordinator's Manual explains how the program operates, how credits are calculated, what documentation is required, and how class ratings are determined. It also acts as guidance for communities in enhancing their flood loss reduction and resource protection activities.

Coordinator's Manual, 2017 Edition



The current Coordinator's Manual is the 2017 Edition.

- Section 100 gives general background information on the CRS.
- Section 200 explains the application and verification procedures.
- Sections 300 through 700 explain the credit points and calculations that are used to verify CRS credit.

Download the 2017 Coordinator's Manual 🏃

2021 Addendum to the Coordinator's Manual, 2017 Edition



In January 2021, an addendum to the Coordinator's Manual became effective. The 2021 Addendum and the 2017 CRS Coordinator's Manual together will constitute the official statement of CRS credits and procedures. These two documents will remain effective until a fully revised edition of the Coordinator's Manual is issued in the future.

Download the 2021 Addendum 🟃



Frequently Asked Questions about the 2021 Addendum 👃



Introduction to the CRS Program

4 CRS Series of Activities - Credits

300 Public Information

400 Mapping and Regulations

500 Flood Damage Reduction

600 Warning and Response



2021 Addendum and Program Prerequisites

- 2017 CRS Manual and 2021 CRS Addendum
- Program Prerequisites for ALL CRS communities
 - Be in good standing with the National Flood Insurance Program (NFIP)
 - 310 EC required for all communities
 - 501 RL required if the community has any repetitive loss properties
 - Meet the CRS Class Prerequisites per CRS Class
 - Meet the credit criteria for the points base per CRS Class



2017 Manual + 2021 Addendum - To Be Used Together



Addendum Includes

- Forward:
 - What Becomes Effective
 - How to Use
- Each Section:
 - Summary
 - New or Updates
 - Clarifications

2021 Addendum and Program Prerequisites

Program Prerequisites for ALL CRS communities

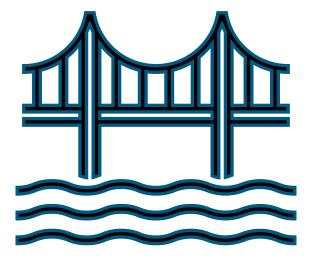
Be in good standing with the National Flood Insurance Program (NFIP)

Community Assistance Visit (CAV) conducted by the State and/or

FEMA Region to verify NFIP compliance and

Floodplain management procedures





310 EC Prerequisite for All

- Activity 310
- All CRS communities are required to collect, review, and maintain construction certificates for new development and substantial improvement within the SFHA

Elevation Certificates

Vent Certification Certificates

Wet Floodproofing Certificates

Dry Floodproofing Certificates

Reviewed in an annual basis and must have at least a 90% correct rate





501 RL Prerequisite for All

- IF the community has any repetitive loss (RL) properties:
 - Annual mailing to the RL area
 - Mapping exercise
 - Source of flooding determination
- If the community has over 50 RL properties:
 - All listed above
 - PLUS floodplain management plan or hazard mitigation plan and/or repetitive loss area analysis

Class Prerequisites – Reference the CRS Manual and CRS Addendum

210 REQUESTING CRS CREDIT—Summary PAGE 210-1 CRS Manual

- a. Class 9 Prerequisites: There are six prerequisites to become and stay a Class 9 or better community. They include being in full compliance with the minimum requirements of the National Flood Insurance Program (NFIP), receiving credit for maintaining FEMA Elevation Certificates, and meeting repetitive loss criteria.
- b. Class 6 Prerequisite: To become a Class 6 or better community, a community must have received a classification of 5/5 or better under the Building Code Effectiveness Grading Schedule.
- c. **Class 4 Prerequisites:** To become a Class 4 or better community, a community must demonstrate that it has programs that minimize flood losses, minimize increases in future flooding, protect natural floodplain functions, and protect people from the dangers of flooding.
- d. **Class 1 Prerequisites:** To become a Class 1 community, a community must have had a successful Community Assistance Visit conducted by FEMA within the previous 12 months and demonstrate that it has a "no adverse impact" program by receiving a certain number of points for designated activities.



Class Prerequisites – Reference the CRS Manual and CRS Addendum

PAGE A-10 CRS Addendum

New Prerequisite for Class 8
On page 210-4, a new subsection is inserted:

211.b. Class 8 Prerequisites

- (1) The community must meet all the Class 9 prerequisites.
- (2) The community must adopt and enforce at least a 1-foot freeboard requirement (including machinery or equipment) for all residential buildings constructed, substantially improved, and/or reconstructed due to substantial damage throughout its SFHA where base flood elevations have been determined on its currently effective FIRM or in its Flood Insurance Study (FIS), except those areas that receive open space credit under Activity 420 (Open Space Preservation).



Getting Started with CRS

- Provide a Letter of CRS Interest and quick check to ISO, State, and FEMA Region
- CAV completed
- Letter of good standing or corrective action plan
- Letter of good standing initiates ISO visit with community
- Completed CRS application with ISO

CRS Discounts published 2 times a year; April and October

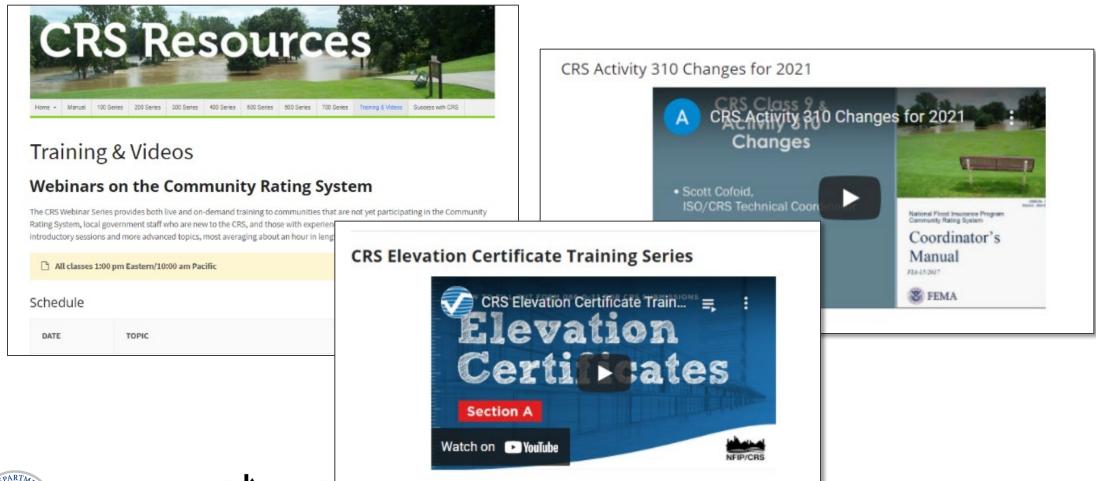




Sample Class 9, 5% Discount

- 310 Elevation Certificates required (38 points)
- 330 Outreach Projects (state average 100 points)
- 420 Open Space (25% of SFHA 363)
- 430 Freeboard (1' = 75 points)
- 430 Building Codes (up to 48 points)
- 440 Additional Map Data (state average 127 points)
 - GIS/digital maps
- 501 Repetitive Loss required if applicable (no points)

CRS Webinar Series and Training Videos





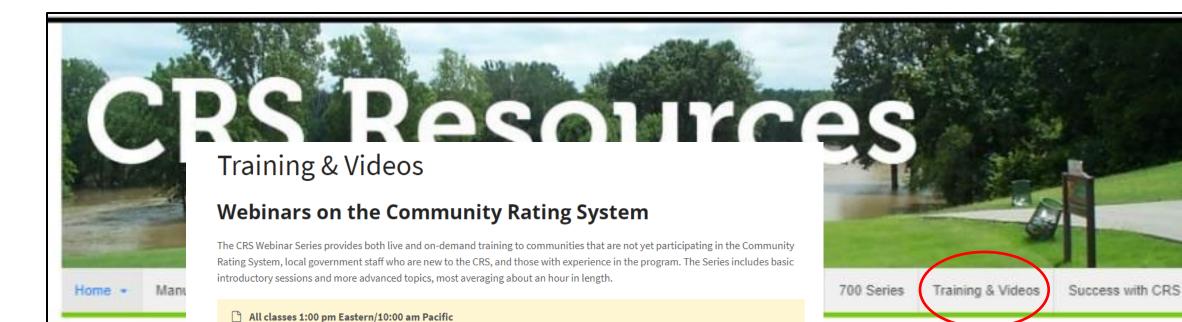


CRS Webinar Series and Training Videos

www.CRSResources.org

- Supportive material and guidance
- Contact information
- Training opportunities no cost





Schedule

DATE	TOPIC
September 21	Preparing an Annual Recertification
September 22	CRS and Coastal Hazards
October 12	Introduction to the CRS
October 13	Floodplain Management Planning (Activity 510)
November 16	CRS & Substantial Damage Properties Management Plans
November 17	Watershed Master Planning

Registration

Click here and type "CRS" in the search field to view webinars that are now open for registration.

CRS Specialist and Resource Specialist

CRS Flood Specialists for NE Eugene Kohls

CRS new applications, modifications, 3/5-year verification visits, training and conferences

Resource Specialist for NE Melissa James

Annual recertification and construction certificate reviews





A Growing Hazard

- Floodplains are inherently hazardous places.
- Flooding is the most frequently reported hazard in Nebraska.
- In a 30-year mortgage, a home in the SFHA has 26% chance of experiencing a flood.
- Climate models show that NE is getting wetter, and
- Storm events will:
 - Increase in frequency
 - Increase in scale / intensity
 - Decrease in predictability

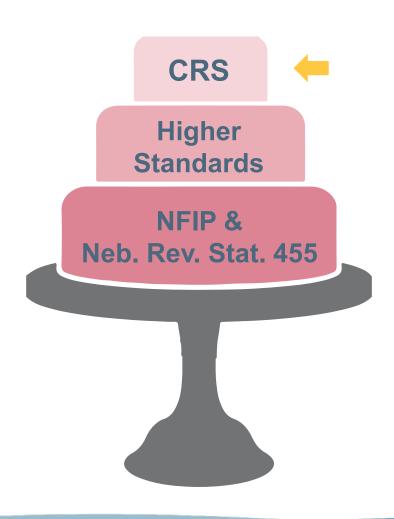
Why Reducing Flood Risk Makes Sense

Reducing flood risk...

- Decreases cost of flood insurance
- Safeguards lives and properties
- Helps maintain quality of life
- Improves community's resilience

We'll work with you to build your community's flood resiliency.

Where Does CRS Fit in?



Accessible Points in Nebraska

Get credit for work already being done:

370 – Flood Insurance Promotion:

NeDNR's Flood Insurance page has resources to disseminate

410 – Flood Hazard Mapping:

 NeDNR's BFE determination service and various mapping projects across the state

420 – Open Space Preservation:

- Open space preservation mapping*
- Low density zoning mapping*

Accessible Points in Nebraska

430 – Higher Regulatory Standards:

- Development limitation: restricted floodway development (NRS §005.01-02), and storage prohibition (NRS §004.15)
- Building codes (State adopted)
- Freeboard (NRS §004.08)

440 – Flood Data Maintenance:

NeDNR Interactive Map



Accessible Points in Nebraska

510 - Floodplain Management Planning:

- Local Multi-Hazard Mitigation Plans
- NeDNR's "Substantial Damage Handbook"
- Repetitive loss area analysis*

630 - Dams:

State dam safety program



If You're Interested in CRS...

- Consider County-City partnership
- Contact ISO to set up a preliminary CRS credit assessment
- Demonstrate good standing in NFIP by agreeing to a Community Assistance Visit (CAV), and ensure closure of the CAV
- Write a Letter of Interest to FEMA Region VII
- Receive CRS audit for credit assessment

If You're Interested in CRS...

Attend our 2-day workshop!

May 17 & 18, 2023

Lincoln, NE

https://dnr.nebraska.gov/floodplain/training-and-workshops

