National Flood Insurance Program Community Rating System

# ACTIVITY WORKSHEETS



Activity Worksheet No.	Title
AW-210	CRS Application Cover Page
AW-214	Recertification Worksheet
AW-230	Modification/Cycle Cover Page
AW-310	Elevation Certificates
AW-320	Map Information Service
AW-330	Outreach Projects
AW-340	Hazard Disclosure
AW-350	Flood Protection Information
AW-360	Flood Protection Assistance
AW-410	Additional Flood Data
AW-420	Open Space Preservation
AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB	Closed Basin Lake Hazards
AW-CE	Coastal Erosion Hazards
AW-DB	Dunes and Beaches
AW-IJ	Ice Jam Hazards
AW-MF	Mudflow Hazards
AW-SU	Land Subsidence Hazards
AW-TS	Tsunami Hazards
AW-UF	Uncertain Flow Path Hazards

# INSTRUCTIONS

The following activity worksheets are to facilitate calculations of Community Rating System (CRS) credit points. They are not used for a community's initial application to the CRS. INITIAL APPLICATIONS FOR THE CRS ARE SUBMITTED USING THE WORKSHEET PAGES IN THE CRS APPLICATION (FIA-15A/2007, FEMA Form No. 086-0-23).

These activity worksheets are for internal use by the community for submittal of modifications and recertifications, and for use by the ISO/CRS Specialist during verification and cycle verification of a community's program.

These worksheets are designed to be used in conjunction with the *CRS Coordinator's Manual*. Each section of the worksheets corresponds to a section in the *Coordinator's Manual*. If a section is missing from the worksheets, it is because the *Coordinator's Manual* shows that no data or calculations are required for that section.

It is recommended that these worksheets be photocopied before they are used.

When used for submitting a modification, the Credit Points, Credit Calculation, and Credit Documentation parts of the worksheets should be completed for each activity for which credit is requested. Fill in the blanks with the value for each variable. DO NOT COMPLETE THE VERIFICATION SECTIONS. That is done by the ISO/CRS Specialist during the verification or cycle verification visit.

Each worksheet has a Credit Documentation section. Check the blanks to denote that all of the required documentation is available. In some cases, the documentation must be provided with the modification. In others, checking the appropriate spaces confirms that you will provide the documentation when needed. Please consult the *CRS Coordinator's Manual* if you have questions about which documentation is to be provided with the request for a modification.

ATTACH THE REQUIRED DOCUMENTATION FOR AN ACTIVITY TO THE WORKSHEET FOR THAT ACTIVITY. If the documentation is ordinance language, attach only the necessary page(s) from the ordinance.

MARK THE MARGINS OF THE DOCUMENTATION WITH THE ACRONYM for the element so the ISO/CRS Specialist can identify the basis for the credit. If the document is a certification, it must have an original signature (and seal if required).

Not included in this document are the activity worksheets needed for obtaining credit for management of special flood-related hazards, such as uncertain flow paths, closed basin lakes, ice jams, land subsidence, coastal dunes and beaches, mudflows, coastal erosion, and tsunamis. Those worksheets can be found in the appropriate publications listed in Appendix E of the *CRS Coordinator's Manual* and in Appendix B of the *CRS Application*.

One other worksheet is not part of this document: AW-501 (Repetitive Loss List) is generated separately by the Department of Homeland Security's Federal Emergency Management Agency (FEMA) when needed, and provided to the community.

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# U.S. DEPARTMENT OF HOMELAND SECURITY FEDERAL EMERGENCY MANAGEMENT AGENCY

# NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM

# COMMUNITY RATING SYSTEM ANNUAL RECERTIFICATION



FEMA FORM 086-0-23A, June 2007

#### COMMUNITY RATING SYSTEM ANNUAL RECERTIFICATION

#### Section 1. Community Data

If there are any changes or corrections to the information in this section, please line out the old item and write in the correction.

Community:	State:	NFIP Number:
Recertification Date:		
Chief Executive Officer:		
Name:		
Address:		
CRS Coordinator:		
Name:	Title:	
Address:		
Coordinator's Telephone:	Fax:	

E-mail Address:

We are maintaining, to the best of my knowledge and belief, in force all flood insurance policies that have been required of us as a condition of federal financial assistance for insurable buildings owned by us and located in the Special Flood Hazard Area as shown on our Flood Insurance Rate Map.

Section 2. Certification

I hereby certify that this community is continuing to implement the activities noted below as credited under the Community Rating System and described in our original application and subsequent modifications.

Signed:	Date:	

#### COMMUNITY RATING SYSTEM ANNUAL RECERTIFICATION

- \_\_\_\_ 310 We are maintaining Elevation Certificates on all new and substantially improved buildings in our Special Flood Hazard Area.
- \_\_\_\_\_ 310 We have issued \_\_\_\_\_\_ [insert number] permits for new construction and substantial improvements in the Special Flood Hazard Area in the last year.
- \_\_\_\_\_ 310 Attached are 5 Elevation Certificates for new or substantially improved structures that have been completed in the last year.
- \_\_\_\_\_ 310 We are maintaining Elevation Certificate data in computer format. Attached is a disk with the elevation certificate data obtained since our last submittal. [ \_\_\_\_\_\_ Initial here if there have not been any new buildings or substantial improvements in the floodplain since the last submittal. Do not attach a disk.]
- \_\_\_\_\_ 310 We continue to make copies of Elevation Certificates on newer properties available at our present office location. [ \_\_\_\_\_ Initial here if your office address has changed in the past year. Please provide new address with this form.]
- \_\_\_\_\_ 320 We are providing Flood Insurance Rate Map information and information on the flood insurance purchase requirement to inquirers. [ \_\_\_\_\_ Initial here if the office address or the manner in which requests may be submitted has changed in the last year. Please provide the new office address or manner of submittal with this form.]
- \_\_\_\_\_ 320 Attached is a copy of the document that told lenders, insurance agents, and real estate offices about this service this year, including informing insurance agents about the availability of elevation certificates. [\_\_\_\_\_ Initial here if the information is included in your annual outreach project to the community or is part of your community's outreach projects strategy. Mark the attachment to Activity 330 to show where this service is publicized.]
- \_\_\_\_\_ 320 Attached is a copy of one page of the log, a letter, or other record that we kept on this service this year.
- \_\_\_\_\_ 320 We are continuing to keep our FIRM updated and maintain old copies of our FIRM.
- \_\_\_\_\_ 330 Attached is a copy of this year's annual outreach project to the community.
- \_\_\_\_\_ 330 Attached is a description of this year's annual outreach project to floodplain residents.
- \_\_\_\_\_ 330 Attached is a copy of the additional outreach project(s) we conducted this year.

#### COMMUNITY RATING SYSTEM ANNUAL RECERTIFICATION

- \_\_\_\_\_ 330 Attached is a copy of the annual evaluation of our public information program strategy or a completed AW-332.
- \_\_\_\_\_ 330 Attached is a copy of the annual outreach conducted for the promotion of flood insurance.
- \_\_\_\_\_ 340 People looking to purchase floodprone property are being advised of the flood hazard through our credited hazard disclosure measures.
- \_\_\_\_\_ 350 Our public library continues to maintain flood protection materials.
- \_\_\_\_\_ 360 We continue to provide flood protection assistance to inquirers.
- \_\_\_\_\_ 360 Attached is a copy of the document that told others about this service this year. [\_\_\_\_\_ Initial here if the information is included in your annual outreach project to the community or to the floodplain properties, or is a part of our community's outreach projects strategy. Mark the attachment to Activity 330 to show where this service is publicized.]
- \_\_\_\_\_ 360 Attached is a copy of one page of the log, a letter, or other record that we kept on this service this year.
- 410 We continue to use our additional regulatory flood data before a new development can proceed in our floodplain.
- 420 We continue to preserve our open space in the floodplain.
- 430 We continue to keep track of building improvements and repairs. Before a new permit is issued, we check the permit record and count the projects' dollar value cumulatively to determine if a nonconforming building should be brought up to our standards for new construction.

#### COMMUNITY RATING SYSTEM ANNUAL RECERTIFICATION

- 430 We continue to enforce our current building code. [\_\_\_\_\_ Initial here if you have amended your building code. Attach a copy of the amendment.
- 430 We continue to employ those staff credited for attaining their CFM, and those who have attended the credited training courses. [\_\_\_\_\_ Initial here if your staff has changed and attach a statement as to the staffing changes.
- 440 We continue to use and update our flood data maintenance system on an annual basis as needed.
- 440 We continue to maintain our system of elevation reference marks. [\_\_\_\_\_ Initial here if any reference marks on your FIRM were found to be missing or inaccurate. Attach a copy of the correct elevation or a description of the missing reference mark].
- \_\_\_\_\_ 440 We continue to maintain our erosion data maintenance system.
  - 450 We continue to enforce the stormwater management provisions of our zoning, subdivision and building code ordinances for new developments in the watershed.
     [\_\_\_\_\_ Initial here if you have amended your stormwater management regulations. Attach a copy of the amendment.]
- 450 We continue to enforce the requirement that all new buildings outside the SFHA must be elevated above the street or otherwise protected from drainage problems.
- 450 We continue to inspect and maintain all our private and public stormwater facilities for which credit has been verified.
- 450 We continue to enforce the provisions of our zoning, subdivision, and building codes as they pertain to erosion and sediment control and water quality.
- \_\_\_\_\_ 502 Attached is a copy of this year's notice on property protection that we sent to our repetitive loss areas.
- \_\_\_\_\_ 502 We currently have \_\_\_\_\_\_ repetitive loss properties and send our notice to \_\_\_\_\_\_ properties in the repetitive loss areas.
- \_\_\_\_\_ 510 Attached is a copy of our floodplain management plan's annual progress report and/or a copy of the annual progress report on the recommendations of the area analyses.
- \_\_\_\_\_ 510 We have provided copies of this progress report to our governing board, local media, and the State NFIP Coordinating office.

#### COMMUNITY RATING SYSTEM ANNUAL RECERTIFICATION

- 520 We continue to maintain as open space the lots where buildings were acquired or relocated out of the floodplain. [\_\_\_\_\_\_ Initial here if there have been any changes (additions or deletions) to the parcels credited as open space. Attach a description of those changes.]
- \_\_\_\_\_ 530 We continue to encourage property owners interested in retrofitting their buildings to protect them from flood damage. [\_\_\_\_\_\_ Initial here if there have been any changes (additions or deletions) to the building credited as being flood protected. Attach a description of those changes.]
- \_\_\_\_\_ 540 We continue to implement our drainage system maintenance program.
- 540 We continue to implement the sections of our Capital Improvements Program which pertain to the drainage system maintenance.
- \_\_\_\_\_ 540 Attached is a copy of a typical inspection report and a copy of the record that shows that any needed maintenance was performed.
- \_\_\_\_\_ 540 We continue to enforce our stream dumping regulations.
- 540 Attached is a copy of this year's outreach project that explained our stream dumping regulations. [\_\_\_\_\_ Initial here if the information is included in your annual outreach project to the community or is part of your community's outreach projects strategy. Mark the attachment to Activity 330 to show where your stream dumping regulations are explained.] [\_\_\_\_\_ Initial here if you publicize the regulations with "no dumping" signs instead of through an outreach project.]
- \_\_\_\_\_ 540 We continue to maintain our coastal erosion protection program.
- \_\_\_\_\_ 610 We have maintained and tested our flood threat recognition system.
- 610 Attached is a report evaluating how our flood warning program worked during the flood(s) we had this year. [\_\_\_\_Initial here if your community did not have a flood that qualifies for evaluating the program (i.e., a flood that damaged more than 10 buildings, caused more than \$50,000 in property damage, or caused the death of one or more persons.)]
- \_\_\_\_\_ 610 We tested our warning dissemination equipment and procedures this year.
- 610 Attached is a copy of this year's outreach document that told people about the flood warnings and safety measures. [\_\_\_\_\_ Initial here if the information is included in your annual outreach project to the community or to floodplain properties, or is a part of your community's outreach projects strategy. Mark the attachment to Activity 330 to show where the flood warnings and safety measures are explained.]

#### COMMUNITY RATING SYSTEM ANNUAL RECERTIFICATION

- \_\_\_\_\_ 610 We conducted at least one exercise of our flood response plan this year.
- 610 We have completed our annual update of the names and telephone numbers of the operators of all critical facilities affected by flooding.
- \_\_\_\_\_ 620 Attached is the annual maintenance certification on our levee(s).
- 630 We continue to enforce the building construction requirements in the area subject to dam failure inundation.
- 630 We conducted at least one exercise of our dam failure emergency action plan this year.

			Co	mmuni	ty :		
23	0 MODIFICA	TION/CYCLE	COVER PA	GE			
1.	Community Nam	e:			State:	BCEGS:	/
	NFIP Number:						
	Population:						
	Modification/Cyc	le Date:	, 200	_ Cou	nty:		
2.		Chief Executive (	Officer:		CR	S Coordinator:	
	Name:						
	Thue:						
	Address:						
	Coordinator's Tel	ephone:			Fax:		
	Coordinator's em	ail:					
	3. I hereby certif					v namel is impl	ementing the
		vities (check the o					
		difying, "a" for a					
		sheets and docume					
		if any of them are					
		with the ISO/CR					
	-	certification need	-				
				- pro 8			
	310 Elev	ation Certificates			440 Flood I	Data Maintenance	e
	320 Map	Information Service	ce		450 Stormw	vater Managemer	nt
		each Projects				ive Loss Require	
	340 Haza	rd Disclosure				lain Management	
	350 Floo	d Protection Inforn	nation			ition and Relocat	
	360 Floo	d Protection Assist	ance		530 Flood H	Protection	
	410 Addi	tional Flood Data			540 Drainag	ge System Mainte	enance
	420 Oper	n Space Preservatio	n			Warning Program	
	-	er Regulatory Stan			620 Levee S	00	
	430LD I	Land Development	Criteria		630 Dam Sa	afety	

- 4. I hereby certify that to the best of my knowledge and belief, we are maintaining in force all flood insurance policies that have been required of us as a condition of federal financial assistance for insurable buildings owned by us and located in the Special Flood Hazard Area shown on our Flood Insurance Rate Map. I further understand that disaster assistance for flooded public buildings in the Special Flood Hazard Area will be reduced by the amount of flood insurance available from the National Flood Insurance Program for the buildings, even if we do not have a policy.
- 5. Signed: \_\_\_\_\_ (Chief Executive Officer)

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## **310 ELEVATION CERTIFICATES**

#### 312 Impact Adjustment:

a. Option 1: 1. rECPO = 1.0 2. rECPR = 1.0 3. rECCF = 1.0 4. rECWS = 1.0 b. Option 2: 1. rECPO = 0.25 2. rECPR = 0.25 3. rECCF = 0.25 4. rECWS = 0.25 c. Option 3: 1. rECPO =  $\frac{bECPO}{bPO}$  = \_\_\_\_ 2. rECPR =  $\frac{bECPR}{bPR}$  = \_\_\_\_ 3. rECCF = \_\_\_\_\_ bECCF = \_\_\_\_ = \_\_\_\_ 4. rECWS = \_\_\_\_\_ bECPO \_\_\_\_\_ + bECPR \_\_\_\_\_ = \_\_\_\_

#### 313 Credit Calculation:

a. cEC	cEC =
b. cECPO = ECPOx rECPO	cECPO =
c. cECPR = ECPRx rECPR	cECPR =
d. cECCF = ECCFx rECCF	cECCF =
e. cECWS = ECWS x rECWS	cECWS =
f. cORS = ORS	cORS =
g. Add lines a through f above =	
c310 = value above rounded to the nearest whole number:	c310 =
Enter this value on AW-720-1.	

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#### 314 Credit Documentation:

- a. [If the community applies for credit under ECPO or ECPR and used a form different from FEMA's] A copy of the local elevation certificate, along with documentation that FEMA has approved it. Note that a local elevation certificate can only be credited if it was used before 1999 or before the community joined the CRS, whichever is later.
- b. [If the community applies for ECCF credit and is NOT using the CRS "Computerized Format for FEMA elevation certificates"] a copy of the computer format being used.
- \_\_\_\_ c. EC Copies of completed elevation certificates OR
- \_\_\_\_ Certification letter if no new construction or substantial improvements.
- ECPO Copies of completed post-FIRM elevation certificates.
- ECPR Copies of completed pre-FIRM elevation certificates.
- \_\_\_\_ ECCF Printout of sample Certificates.
- \_\_\_\_ ECWS Printout of sample Certificates. Website address \_\_\_\_
- \_\_\_\_\_ d. Documentation showing how the impact adjustment ratios were determined and how the community maintains, stores, and provides copies of elevation certificates.

#### The following will be needed at the annual recertification:

 e. ECCF – A disk with the elevation and floodproofing certificate data in computer format obtained since the last submittal.

Starting month/year for which certificates are consistently available:

Office where requests should be submitted:

Address \_\_\_\_\_

City		State	Zip	
Phone	Fax	e-mail		

How should	requests for elevation	and/or floodproofing	certificates be	submitted (mail,	phone,
fax, etc.)?		· · ·			

#### Comments:

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### 320 MAP INFORMATION SERVICE

#### 322 Credit Calculation:

c320 = MI =\_\_\_\_

c320 = \_\_\_\_\_

Enter this value on AW-720-1.

#### 323 Credit Documentation:

a. Documentation that shows how the community publicizes the service each year.

- 1. If the community publicizes this service through an annual outreach project credited under Activity 330 (OPC or OPS), "320" must be noted in the margin of the outreach project to the community (OPC) where the map information service is addressed. If an OPS is used, the public information strategy document must discuss the best way to publicize the map information service to the target audiences.
- If the community publicizes this service through an annual outreach project that is not credited under Activity 330, attach a copy of the project. The materials must be distributed each year and must reach at least 90% of the target audience.
- If the community sends a letter or e-mail directly to lending institutions and real estate and insurance agencies, attach a copy of the letter or e-mail message.
- 4. If the community notifies organizations of lending institutions and real estate and insurance agencies, attach copies of the notifications in their publications. If any organization has not yet published the notifications, documentation must include written assurance from the organization that it intends to publish the notification within six months of the Community Rating System (CRS) application date.
- b. If another agency provides map information, documentation that the agency agrees to provide the service to all inquirers and will allow the CRS to verify its work.
- \_\_\_\_c. Records of which institutions and agencies were notified of the service. If the community sends letters to institutions and agencies, a mailing list for those institutions and agencies.
- \_\_\_\_d. A record or log that shows the level of service provided.
- \_\_\_\_e. Documentation or notations on how the community keeps the FIRM updated.
- \_\_\_\_ Documentation or notations that the community has copies of all FIRMs since 1999 or the date the community applied for this credit, whichever is later.

Starting month/year	for which certificates are cor	isistently available:	······ , _····	_
Office where request	s should be submitted			_
Address				_
City		State	Zip	
Phone	Fax	e-mail		
How should requests	for the service be made (mai	I, phone, fax, etc.)?		

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# **330 OUTREACH PROJECTS**

#### 331 Credit Points:

Variable:         OPC         OPF         OPA1         OPA2         OPA3           Points per topic:         6         13         2         2         2           Topics covered		
Topics covered         1. Local flood hazard:		
1. Local flood hazard:		
2. Flood safety:   3. Flood insurance:   4. Property protection:   5. Natural & beneficial functions:   6. Local flood hazard map:   7. Flood warning system:   8. Permit requirements:   9. Substantial improvement/damage:   10. Drainage maintenance:   Total of above:		
3. Flood insurance:   4. Property protection:   5. Natural & beneficial functions:   6. Local flood hazard map:   7. Flood warning system:   8. Permit requirements:   9. Substantial improvement/damage:   10. Drainage maintenance:   Total of above:		
4. Property protection:		
5. Natural & beneficial functions:   6. Local flood hazard map:   7. Flood warning system:   8. Permit requirements:   9. Substantial improvement/damage:   10. Drainage maintenance:   Total of above:		
6. Local flood hazard map:		
7. Flood warning system:		
8. Permit requirements:		
9. Substantial improvement/damage:		
10. Drainage maintenance:      Total of above:   OPC =		
Total of above: OPC =		
OPF =		
OPA1 =		
OPA2 =		
OPA3 =		
d. OPS		
1. Outreach Project pursuant to a strategy (100 points):		
2. Multi-hazard strategy (25 points):		
OPS = the total of lines 1 and 2 above: OPS =		
e. PFI		
1. Brochure or letter (10 or 45 points):		
2. Inclusion of photo(s) (5 points):		
3. Explanation of FIRM zones (15 points):		
· · · · · · · · · · · · · · · · · · ·		
PFI = the total of lines 1, 2, and 3 above: PFI =		
2 Credit Calculation:		
c330 = EITHER		
OPC + OPF + OPA1 + OPA2 + OPA3 + PFI c330 =		
OR OPC + OPF + OPS + PFI c330 =		
er this value on AW-720-1.		

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	a.	OPC:	Copies of the materials, marked with the topics covered. Date sent:
		OPF:	Copies of the materials, marked with the topics covered. Date sent:
		90% (	Coverage Documentation
		OPA1	: A description of the project with copies of the public information materials that were distributed, marked with the topics covered. Date undertaken: Example or description:
		OPA2	: A description of the project with copies of the public information materials that were distributed, marked with the topics covered. Date undertaken: Example or description:
		OPA3	A description of the project with copies of the public information materials that were distributed, marked with the topics covered. Date undertaken: Example or description:
	h		A copy of the letter or brochure mailed to entire community or SFHA properties A copy of the public information program strategy marked with the criteria that must
	0.	01 0.	be met. Include documentation that the strategy is being implemented.
		PFI - 1. N 2. N 3. N 4. N	nentation that shows when the projects were undertaken. Prerequisites: lumber of buildings in the community: lumber of apartments and condominium units in the community: _ lumber of buildings in the SFHA: lumber of apartments and condominiums in the SFHA: lotes on how these numbers were calculated:
The f	c. d.	OPS: Docur PFI - 1. N 2. N 3. N 4. N 5. N	A copy of the public information program strategy marked with the criteria that mube met. Include documentation that the strategy is being implemented. nentation that shows when the projects were undertaken. Prerequisites: lumber of buildings in the community: lumber of apartments and condominium units in the community: lumber of buildings in the SFHA: lumber of apartments and condominiums in the SFHA:

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#### 333.e Public Information Program Strategy Evaluation

[See page 330–25 of the CRS Coordinator's Manual for a completed example.

- 1. Goals of the community's Public Information Program Strategy:
- 2. Projects implemented to meet those goals and their objectives:

3. Were any projects not implemented or objectives not reached? If not, why?

4. What new projects should be implemented and what projects or objectives should be revised?

For more information, contact:	Phone:	

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## 340 HAZARD DISCLOSURE

#### 342 Credit Calculation:

a. DFH:	DFH =
b. ODR:	ODR =
c. REB:	REB =
d. DOH:	DOH =
e. Add lines a through d above:	c340 =

Enter this value on AW-720-1.

#### 343 Credit Documentation:

- a. DFH: Documentation that demonstrates that real estate agents are advising potential property purchasers of the flood hazard and the flood insurance purchase requirement.
- Disclosure notices from at least five real estate agencies. Blank forms are not acceptable documentation. OR
- \_\_\_ State law that requires real estate agents to advise people whether a property is located in a Special Flood Hazard Area.
  - b. ODR: A copy of ordinance or law language requiring one or more additional disclosure methods at the time of sale or rental of a property. The acronym "ODR" must be marked in the margin of the sections that pertain to this element.
- ODR1: Regulation: \_\_\_\_\_
- \_\_\_\_ ODR2: Regulation: \_\_\_\_\_
- \_\_\_\_ ODR3: Regulation: \_\_\_\_\_
- c. REB: A brochure or other document that is made available to interested parties by real estate agents. The document must advise people looking to purchase property to investigate the flood hazard before they buy.
- d. DOH: Documentation that the DFH notification includes disclosure of other floodrelated hazards, such as erosion, subsidence, or wetlands.

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Community : \_\_\_\_\_ 350 FLOOD PROTECTION INFORMATION 351 Credit Points: a. LIB: 1. FIRM, Floodway Map, and explanation (4 points): Flood insurance (2 points): 3. Building protection measures (8 points): 4. Floodplain management or hazard mitigation (3 points): Natural and beneficial floodplain functions (3 points): 6. Directory of local sources of more information (3 points): 7. Special Hazards (2 points) LIB = the total of lines 1 through 7 above LIB = \_\_\_\_\_ b. LPD: LPD = c. WEB: 1. Prerequisites: (a) Site is easy to locate using the community's name. \_\_\_\_ (b) Easy to get to the flood information from the home page. (c) Links are pertinent to the community's flood conditions. \_\_ (d) At least one link to FEMA's website. \_\_\_ (e) Site is reviewed and updated at least once each year. 2.(a) Outreach Project Topics: 1. Local flood hazard (4 points): 2. Flood safety (4 points): 3. Flood insurance (4 points): 4. Property protection (4 points): 5. Natural & beneficial functions (4 points): 6. Local flood hazard map (4 points): 7. Flood warning system (4 points): 8. Permit requirements (4 points): 9. Substantial improvement/damage (4 points): 10. Drainage maintenance (4 points): (b) Publicizing elevation certificates (2 points): (c) Real time river gauge data (10 points): (d) Other flood warning information (20 points): WEB = the total of lines 2(a)—2(d) above: WEB = 352 Credit Calculation: Add LIB, LPD, and WEB: c350 = \_\_\_\_

AW-350-1

Enter this value on AW-720-1.

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### 353 Credit Documentation:

- a. LIB: A statement from the head of the library that includes:
- A list of the documents available in the library with their publication dates. Note which ones also gualify as locally pertinent documents for LPD credit. AND
  - 2. EITHER:
  - (a) Certification that the documents have been entered into the library's card catalog or similar system. OR
- (b) A copy of the card catalog cards or printout of the automated system's inventory of flood documents. AND
- 3. A statement that adequate numbers of documents will be maintained and that the FIRMs and other materials will be kept up to date.
- \_\_\_\_b. WEB: The URL of the community's website: \_\_\_\_
- \_\_\_\_ If appropriate, documentation that the website is publicized through an outreach project reaching 90% of community.

### The following will be needed at the annual recertification:

\_\_\_\_\_c. WEB: Certification that the community has conducted its annual review and update of the information and links in its flood protection website.

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# 360 FLOOD PROTECTION ASSISTANCE

## 361 Credit Points:

### FPA:

а	. Providing site-specific flood and flood-related data (10 points):	
b	. Providing names of contractors and consultants (4 points):	
С	. Providing material on how to select a contractor (3 points):	
d	. Making site visits to review flood, drainage, and sewer problems (35 points):	
е	. Advising and assisting on retrofitting techniques (14 points):	
f.	Retrofitting Floodprone Residential Buildings course at EMI (5 points) OR FEMA's Retrofitting home study course (2 points):	
	FPA = the total of lines a through f above:	FPA =
362	Credit Calculation:	
	c360 = FPA	c360 =

Enter this value on AW-720-1.

## 363 Credit Documentation:

- a. A copy of the document used to publicize the service.
- An outreach project to the community (OPC or OPF) credited under Activity 330.
- An outreach project pursuant to the public information strategy (OPS) credited in Activity 330, provided the public information strategy document discusses the best way to advise the target audiences. OR
- An annual outreach project that advises all residents and businesses in the community or in the floodplain about the service, but is not credited under Activity 330 (e.g., a short notice with all tax or utility bills). The materials must be distributed each year and must reach at least 90% of the target audience.
- b. A description of the technical qualifications of all persons who are providing the site visit and retrofitting assistance credited under Sections 361.d and e.
- If credit is being sought under Section 361.f for graduation from the EMI retrofitting course, a copy of the certificate of graduation.
- \_\_\_\_\_c. If the person is not a community employee, a letter stating that the person and/or agency have agreed to do the work.
- d. If the community is applying for credit under Section 361.b or c, a list of the names of contractors or consultants and/or a copy of the material the community provides on how to select a contractor.
- e. If the community is applying for credit under Section 361.d or e, records noting the date and type of assistance given. The records must include the details of the findings and recommendations provided to the inquirer.

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Community :	
410 ADDITIONAL FLOOD DATA	
<b>NOTE:</b> Make a copy of this worksheet for each AFD. This worksheet is for	AFD
411 Credit Points:	
a. NS	
1. Delineation of an approximate A Zone:	
2. Flood elevations for a site at time of development:	
3. New profile or length of shoreline:	
<ol> <li>New profile with floodway or length of shoreline with coastal velocity zone delineation:</li> </ol>	
5. Repetitive loss area(s):	
Add lines 1 through 5:	NS=
b. LEV EITHER	
1. <u>Non-FEMA share of study</u> = Total cost of study	
OR	
2. A total of the following:	
(a) 0.25 if better topographic map was contributed:	
(b) 0.15 if other contributions were made to the study:	=
c. HSS	LEV=
1. Delineation of an approximate A Zone:	
2. Flood elevations for a site at time of development:	
3. New profile or length of shoreline:	
	HSS =
d. FWS	FWS=
e. CTP2	CTP2 =
412 AFDi Impact Adjustment:	
a. Option 1: rAFD = 1.0 b. Option 2: rAFD = 0.25	
c. Option 3: rAFD= <u>aAFD</u> = aSFHA	

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# 413 Credit Calculation:

a. cAFDi = ((NSi x LEVi) + HSSi + FWS) x rAFDi x CTP2i	
cAFD1 = ((x) + +) x x	cAFD1 =
cAFD2 = ((x) + +) x x	cAFD2 =
cAFD3 = ((x) + +) x x	cAFD3 =
cAFD4 = ((x) + +) x x	cAFD4 =
cAFD5 = ((x) + +) x x	cAFD5 =
cAFD6 = ((x) + +) x x	cAFD6 =
b. $\Sigma AFDi =$ the total of cAFD1 through cAFD6:	ΣAFDi =
AFDSH (enter total 410 credit from all Special Hazard	ls Worksheets)
cAFDSH = AFDSH x CTP2	cAFDSH =
CTP1	CTP1 =
Add the lines under b above =	
c410 = value above rounded to the nearest whole number:	c410 =
Enter this value on AW-720-1.	

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## 414 Credit Documentation:

- \_\_\_\_\_a. The ordinance or law that adopts the flood study for regulatory purposes. AND/OR
- \_\_\_\_ The ordinance that requires site-specific flood elevation or floodway studies to be conducted at the time of permit application.
  - b. EITHER:
- \_\_\_\_ A copy of each study or an explanation of the technique used and a licensed professional engineer's statement that the study technique is approved by FEMA. OR
- \_\_\_\_ A copy of the Flood Insurance Study pages or Letter of Map Revision (LOMR) that show that the study has been accepted by FEMA to revise the FIRM.
- c. If the community requested credit for the independent review, documentation that the state or other agency reviewed and accepted the study or analysis techniques for which credit is being requested.
- \_\_\_\_ NS: Documentation that new base flood elevations are higher than those shown in the FIRM.
- \_\_\_\_ NS: If credit for mapping a repetitive loss area is requested, the area must be identified on a map.
- \_\_\_\_ HSS: Documentation of the higher study standard used in the flood study.
- \_\_\_\_ FWS: The state or local law that sets the maximum allowable surcharge used in the study and a copy of the Floodway Data Table or similar documentation that shows the surcharge used in the study.
- \_\_\_\_ CTP1: Documentation that the community or other entity has signed the CTP agreement.
- \_\_\_\_ CTP2: Documentation showing the relationship between the study and the CTP agreement.
- d. LEV: Documentation of the non-FEMA share of the study and who paid for it.
- \_\_\_\_\_e. The Impact Adjustment Map if Option 3 is used.
- \_\_\_\_\_f. CTP2: Documentation that shows the relation between the study or standard and the CTP agreement.

#### The following will be needed at the cycle verification visit:

g. [If the community has received credit for a new study (NS) under Section 411.a] A certification by the community's engineer that its regulatory floodplain maps and related data reflect current conditions.

Comments: \_\_\_\_\_

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# 420 OPEN SPACE PRESERVATION

### 422 Impact Adjustment:

- a. Option 1: 1. rOS = 1.0 2. rDR = 1.0 3. rNB = 1.0b. Option 2: 1. rOS = 0.05 2. rDR = 0.1 3. rNB = 0.1c. Option 3: 1.  $rOS = \underline{aOS}_{aRF} = _____3$  3.  $rNB = \underline{aNB}_{aRF} = _____3$ 2.  $rDR = \underline{aDR}_{aRF} = _____3$ 423 Credit Calculation: a.  $cOS = 725 \times rOS = _____3$ 
  - b. cDR =
     75 x rDR \_\_\_\_\_
     cDR = \_\_\_\_\_

     c. cNB =
     100 x rNB \_\_\_\_\_
     cNB = \_\_\_\_\_

     d. cSHOS (Enter total 420 credit from all Special Hazards Worksheets)
     cSHOS = \_\_\_\_\_\_

     e. Add lines a through d above =
     \_\_\_\_\_\_

     c420 = value above rounded to the nearest whole number:
     c420 = \_\_\_\_\_\_

Enter this value on AW-720-1.

# 424 Credit Documentation:

- \_\_\_\_ a. Provide assurance that eligible properties will remain open with a marked-up copy of the restrictive ordinance language.
- b. Provide assurance that eligible properties will remain open with a document from the owner(s).
- \_\_\_\_ c. DR: Attach a copy of the deed restriction(s).
- d. NB: Attach a copy of the documentation from a professional in a natural science that the parcel has been preserved in or restored to an undeveloped natural state, or is otherwise deserving of preservation because of the natural and beneficial function(s) that it serves.
- \_\_\_\_ e. The Impact Adjustment Map.
- f. EITHER the open space areas are \_\_\_\_ located within the SFHA, OR \_\_\_\_ outside the SFHA and documentation is attached showing that floodplain regulations are in effect in the area outside the SFHA.

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# 430 HIGHER REGULATORY STANDARDS

# 432 Impact Adjustment:

a. Option 1: Enter rOS from AW-420-1. If the community did not apply for Activity	420, then rOS = 0
1. rFRB = 1.0 - rOS =	6. rPSC = 1.0 - rOS =
2. rFDN = 1.0 - rOS =	7. rNBR = 1.0 - rOS =
3. rCSI = 1.0 - rOS =	8. rENL = 1.0 - rOS =
4. rLSI = 1.0 - rOS =	9. rOHS = 1.0 - rOS =
5. rPCF = 1.0 – rOS =	10. rCAZ = 1.0 - rOS =
b. Option 2:	
1. rFRB = 0.25	6. rPSC = 0.25
2. rFDN = 0.25	7. rNBR = 0.25
3. rCSI = 0.25	8. rENL = 0.25
4. rLSI = 0.25	9. rOHS = 0.25
5. rPCF = 0.25	10. rCAZ = 0.1
c. Option 3:	
1. rFRB = <u>aFRB</u> = aRF	6. rPSC = <u>aPSC</u> = aRF
2. rFDN = <u>aFDN</u> = aRF	7. rNBR = <u>aNBR</u> = aRF
3. rCSI = <u>aCSI</u> = aRF	8. rENL = <u>aENL</u> = aRF
4. rLSI = <u>aLSI</u> = aRF	9. rOHS = <u>aOHS</u> = aRF
5. rPCF = <u>aPCF</u> = a500	10. rCAZ = <u>aCAZ</u> = aRF

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# 433 Credit Calculation:

a. cFRB = FRB x rFRB cFRB =		
b. cFDN = FDN x rFDN cFDN =		
c. cCSI = CSI x rCSI cCSI =		
d. cLSI = LSI x rLSI cLSI =		
e. cPCF = PCF x rPCF cPCF =		
f. cPSC = PSC x rPSC cPSC =		
g. cNBR = NBR x rNBR cNBR =		
h. cENL = ENL x rENL cENL =		
i. cOHS = OHS x rOHS cOHS =		
j. c430LD (from AW-430LD-2 and LD values from Special Hazards Worksheets): c430LD =		
k. cSH (Enter total 430 credit from all Special Hazards Worksheets): cSH =		
I. SMS FRB FDN CSI LSI PCF		
PSCNBRENLOHSLD		
SHBCSTFMHPCAZ		
NSHSSFWSOSSMR		
(Other SMS:) (Other SMS:)		
1. 0.1 x (credit for SMS elements) =		
2. Insurance agent training =		
cSMS = the total of 1 and 2 above: cSMS =		
m. BC		
1. 15 x (7 – BCEGS rating) =		
2. I-Codes credit IBC + IRC + Other codes =		
cBC = total of 1 and 2 above: cBC =		
n. STF		
1. All regulatory staff are CFMs (50 points)		
2. All development projects reviewed and approved by CFM (25 points)		
3. 5 points for each CFM or EMI course graduate (max 25 points) cSTF = 1 or 2 or 3 above: cSTF =		
o. MHP cMHP =		
p. cCAZ = CAZ x rCAZ cCAZ =		
q. Add lines a through p above =		
c430 = value above rounded to the nearest whole number: c430 =		
Enter this value on AW-720-1.		

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### 434 Credit Documentation:

FRB		a. Law or ordinance Language	c. Explanation/documentation of enforcement procedures	Copies of relevant permit records
CSI	FRB			
LSI	FDN			
PCF	CSI			
PSC	LSI			
ENL	PCF			
OHS	PSC			
NBR	ENL			
MHP	OHS			
CAZ If credit is for regulations adopted pursuant to a Habitat Conservation Plan, attach the appropriate pages of the plan. LD AW-430LD is attached. SH AW and relevant documentation for each special hazard for which credit is requested is attached. SMS State law or regulation mandating a floodplain management standard attached. State law or regulation has been approved under Uniform Minimum C State law or regulation mandating flood insurance training for propert insurance agents is attached. BC Law or ordinance language adopting I-Codes is attached. MHP Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations an greater than 3 feet deep in these parks/subdivisions. CAZ Map of the community's designated Coastal AE Zone. b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.	NBR			
NBR       If credit is for regulations adopted pursuant to a Habitat Conservation Plan, attach the appropriate pages of the plan.         LD       AW-430LD is attached.         SH       AW and relevant documentation for each special hazard for which credit is requested is attached.         SMS       State law or regulation mandating a floodplain management standard attached.         State law or regulation has been approved under Uniform Minimum C         State law or regulation mandating flood insurance training for propert insurance agents is attached.         BC       Law or ordinance language adopting I-Codes is attached.         MHP       Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations an greater than 3 feet deep in these parks/subdivisions.         CAZ       Map of the community's designated Coastal AE Zone.         b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.	MHP			
<ul> <li>Plan, attach the appropriate pages of the plan.</li> <li>LD AW-430LD is attached.</li> <li>SH AW and relevant documentation for each special hazard for which credit is requested is attached.</li> <li>SMS State law or regulation mandating a floodplain management standard attached.</li> <li> State law or regulation has been approved under Uniform Minimum C</li> <li> State law or regulation mandating flood insurance training for propert insurance agents is attached.</li> <li>BC Law or ordinance language adopting I-Codes is attached.</li> <li>MHP Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations at greater than 3 feet deep in these park/subdivisions.</li> <li>CAZ Map of the community's designated Coastal AE Zone.</li> <li>b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.</li> </ul>	CAZ			
<ul> <li>SH AW and relevant documentation for each special hazard for which credit is requested is attached.</li> <li>SMS State law or regulation mandating a floodplain management standard attached.</li> <li> State law or regulation has been approved under Uniform Minimum C</li> <li> State law or regulation mandating flood insurance training for propert insurance agents is attached.</li> <li>BC Law or ordinance language adopting I-Codes is attached.</li> <li>MHP Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations an greater than 3 feet deep in these parks/subdivisions.</li> <li>CAZ Map of the community's designated Coastal AE Zone.</li> <li>b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.</li> </ul>	NBR			labitat Conservation
<ul> <li>credit is requested is attached.</li> <li>SMS State law or regulation mandating a floodplain management standard attached.</li> <li> State law or regulation has been approved under Uniform Minimum C</li> <li> State law or regulation mandating flood insurance training for propert insurance agents is attached.</li> <li>BC Law or ordinance language adopting I-Codes is attached.</li> <li>MHP Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations an greater than 3 feet deep in these parks/subdivisions.</li> <li>CAZ Map of the community's designated Coastal AE Zone.</li> <li>b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.</li> </ul>	LD	AW-430LD is attac	hed.	
<ul> <li>attached.</li> <li>State law or regulation has been approved under Uniform Minimum C</li> <li>State law or regulation mandating flood insurance training for propert insurance agents is attached.</li> <li>BC Law or ordinance language adopting I-Codes is attached.</li> <li>MHP Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations argreater than 3 feet deep in these parks/subdivisions.</li> <li>CAZ Map of the community's designated Coastal AE Zone.</li> <li>b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.</li> </ul>	SH		•	hazard for which
<ul> <li>State law or regulation mandating flood insurance training for propert insurance agents is attached.</li> <li>BC Law or ordinance language adopting I-Codes is attached.</li> <li>MHP Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations argreater than 3 feet deep in these parks/subdivisions.</li> <li>CAZ Map of the community's designated Coastal AE Zone.</li> <li>b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.</li> </ul>	SMS		tion mandating a floodplain ma	inagement standard
<ul> <li>insurance agents is attached.</li> <li>BC Law or ordinance language adopting I-Codes is attached.</li> <li>MHP Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations ar greater than 3 feet deep in these parks/subdivisions.</li> <li>CAZ Map of the community's designated Coastal AE Zone.</li> <li>b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.</li> </ul>		State law or regula	tion has been approved under	Uniform Minimum Cr
<ul> <li>MHP Map showing one or more existing manufactured home parks or subdivisions in the regulatory floodplain. The base flood elevations ar greater than 3 feet deep in these parks/subdivisions.</li> <li>CAZ Map of the community's designated Coastal AE Zone.</li> <li>b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.</li> </ul>			•	e training for property
<ul> <li>subdivisions in the regulatory floodplain. The base flood elevations are greater than 3 feet deep in these parks/subdivisions.</li> <li>CAZ Map of the community's designated Coastal AE Zone.</li> <li>b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.</li> </ul>	BC	Law or ordinance la	anguage adopting I-Codes is at	ttached.
b. Impact Adjustment Option 3 – Attached is the Impact Adjustment Map.	subdivisions in the regulatory floodplain. The base flood elevations are			
	CAZ	Map of the commun	nity's designated Coastal AE Z	one.
d. STF: A copy of the certificate(s) of graduation or CFM certificate(s).	b. Impac	t Adjustment Option 3 -	- Attached is the Impact Adjust	ment Map.
	d. STF:	A copy of the certificate	e(s) of graduation or CFM certif	ficate(s).

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# 430LD LAND DEVELOPMENT CRITERIA

# 432LD Impact Adjustment:

- a. Option 1: Enter rOS from AW-420-1.
  If the community did not apply for Activity 420, then rOS = 0
  rLZ\_ = 1.0 rOS \_\_\_\_\_ = \_\_\_\_
- b. Option 2:
  - 1. rLZ\_\_ = 0.05
  - 2. rLZ\_\_\_ = 0.05
- c. Option 3:
  - 1. rLZ\_\_\_= <u>aLZ\_\_\_\_</u> = \_\_\_\_\_ aRF\_\_\_\_\_
  - 2. rLZ\_\_\_=<u>aLZ\_\_\_\_</u>=\_\_\_\_ aRF\_\_\_\_\_
  - 3. rLZ\_\_\_ = <u>aLZ\_\_\_\_</u> = \_\_\_\_\_ aRF\_\_\_\_\_

# 433LD Credit Calculation:

a. cLZ = LZ x rLZ	cLZ =
cLZ = LZ x rLZ	cLZ =
cLZ = LZ x rLZ	cLZ =
cLDC = LDC	cLDC =
b. Add the lines above =	

c430LD = value above rounded to the nearest whole number: c430LD = \_\_\_\_\_ Enter this value on AW-430-3.

## 434LD Credit Documentation:

- \_\_\_\_\_ a. Ordinance language that adopts the land development criteria or low density zoning.
- \_\_\_\_\_ b. The Impact Adjustment Map.
- \_\_\_\_\_ c. Attached is an explanation of how the regulations are enforced.
- \_\_\_\_\_ d. Attached are examples of developments constructed in accordance with the regulations.

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To facilitate verification of this activity, please provide the names of the CRS Coordinator and planning director if other than the CRS Coordinator:

	CRS Coordinator	Local Planning Director
Name:		
Title:		
Phone:	Fax:	Fax:
Address:		
E-mail:		
Comments:		

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# 440 FLOOD DATA MAINTENANCE

## 441 Credit Points:

- a. AMD:
  - 1. Prerequisites:
  - (a) The system is used regularly by the community regulatory staff.
  - \_\_\_\_ (b) New data are added at least annually.
  - \_\_\_\_ (c) Digitized data will be made available annually to FEMA.

### 2. Credit Points:

<ul> <li>(a) Regulatory floodplain, corporate limits, streets, and parcels/lots (32 points):</li> </ul>	
(b) Location of buildings (15 points):	
(c) Floodways or coastal high hazard areas (8 points):	
(d) Base flood elevations (8 points):	
(e) FIRM zone attributes (6 points):	
(f) 500-year elevations or boundaries (8 points):	
(g) Other natural hazard areas (8 points):	
(h) Topographic contour lines (10 or 20 points):	
(i) Floodplain data in tax assessment data base (8 points):	
(j) Overlays for previous FIRMs (8 points):	
(k) Other regulatory or mitigation overlays (8 points):	
AMD = the total of lines (a) through (k) above:	AMD =

b. BMM:

BMM = <u>15 x ((NSRS x 1.5) + LBM</u> = \_\_\_\_\_ BMM = \_\_\_\_\_

d. FM:

FM = \_\_\_\_\_

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Community : \_\_\_\_\_ 442 Impact Adjustment: a. Option 1: rAMD = 1.0b. Option 2: rAMD = 0.25c. Option 3: rAMD = <u>\_\_\_\_\_</u> = \_\_\_\_\_ aRF 443 Credit Calculation: a. cAMD = AMD \_\_\_\_\_ x rAMD \_\_\_\_\_ = cAMD = \_\_\_\_\_ BMM = \_\_\_\_\_ b. BMM: c. EDM (from AW-CE): EDM= FM =\_\_\_\_ d. FM: Add the lines above = c440 = value above rounded to the nearest whole number:c440 = Enter this value on AW-720-1.

# 444 Credit Documentation:

- \_\_\_\_\_ a. A summary or example showing the types of data in the data maintenance program.
- b. If the data maintenance program does not include the entire community, the Impact Adjustment Map.
- \_\_\_\_\_ c. Copies of the digitized mapping, parcel records, or overlay maps, as appropriate.
- \_\_\_\_ Copies of the shoreline erosion records.
- Copies of the old FIRMs, Floodway Maps, Flood Insurance Studies, and/or Flood Hazard Boundary Maps.
- d. The data on the qualifying benchmarks, the surveyor's statement (for those benchmarks not in the NSRS), and the map showing their locations.
  - e. Information on reference marks that appear on the FIRM that were found to be missing or inaccurate.

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# **450 STORMWATER MANAGEMENT**

# 451 Credit Points:

a. SMR	
1. SZ	SZ =
2. DS	DS =
3. PUB	PUB =
SMR = the total of lines 1 through 3:	SMR =
b. WMP	
1. The four prerequisites are met (80 points):	
2. The plan is also based on the 100-year storm (25 points)	:
3. The community also manages peaks and volumes (40 pc	pints):
4. The community uses the 5-day event (25 points):	
5. Identification of wetlands, etc. (15 points):	
6. Protection of natural channels (10 points):	
7. Requiring "soft" techniques for bank stabilization (10 poin	its):
8. Coordination with the floodplain management plan (20 pc	pints):
WMP = the total of lines 1 through 8:	WMP =
452 Impact Adjustment:	
a. Option 1: 1. rSMR = 1.0 2. rWMP = 1.0	
b. Option 2: 1. rSMR = 0.25 2. rWMP = 0.25	
c. Option 3: 1. rSMR = $\underline{aSMR}$ = 2. rWMP = $\underline{aSMR}$	aWMP=
aW a 453 Credit Calculation:	W
a. cSMR = SMR x rSMR	cSMR =
b. cWMP = WMP x rWMP	cWMP =
c. FRX =xheight in feet of lowest floor or opening	, OR
50, where site plan accounts for drainage, OR	
20, where positive drainage required	FRX =
d. ESC	ESC =
e. WQ	WQ =
Add the lines a—e above =	
c450 = value above rounded to the nearest whole number:	c450 =
Enter this value on AW-720-1.	

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### 454 Credit Documentation:

- a. Stormwater Management Regulation (SMR):
- 1. A copy of the ordinance or law language regulating surface water runoff from new developments in the watershed. For SMR credit, the language must require that peak runoff from new developments be no greater than the runoff from the site in its pre-development condition. As an alternative to such a performance standard, the language may be based on criteria designed to produce the same result on a regional basis (e.g., a standard allowable discharge per acre based on a regional study). The margin next to where this appears in the ordinance must be marked "SMR."
  - Ordinance language from other communities within the watershed with the same or similar regulations. The margin next to where this appears in the ordinance must be marked "SMR," OR
  - \_\_\_\_ Written assurance from a county, regional, or state agency that similar standards are in effect in the upstream communities.
  - \_\_\_\_ Development and permit records that demonstrate enforcement.
- 2. SZ: The ordinance language that includes the types of development regulated to ensure that peak runoff from new developments be no greater than the runoff from the site in its pre-development condition. Include the part of the ordinance that specifies exemptions to this requirement. The margin next to where this appears in the ordinance must be marked "SZ."
  - Ordinance language from other communities within the watershed with the same or similar regulations. The margin next to where this appears in the ordinance must be marked "SZ," OR.
  - Provide written assurance from a county, regional, or state agency that similar standards are in effect in the upstream communities.
  - \_ 3. DS: The ordinance language that includes the design storm(s) used by the community for stormwater management regulation. This is the recurrence interval for the storm(s) that is/are regulated to prevent increased runoff due to development. If credit is based on language that does not include storm recurrence intervals, the community must provide an estimate of the recurrence intervals. The margin next to where this appears in the ordinance must be marked "DS."
    - Ordinance language from upstream communities within the watershed with the same or similar regulations. The margin next to where this appears in the ordinance must be marked "DS." OR
    - Provide written assurance from a county, regional, or state agency that similar standards are in effect in the upstream communities.
- 4. PUB: The ordinance language that shows that the community has the authority to inspect all private and public stormwater facilities and ensure that they are properly maintained. The margin next to where this appears in the ordinance must be marked "PUB."
  - Ordinance language that requires that all stormwater facilities be dedicated to the community." OR
  - Ordinance language that allows community staff to enter private property to inspect stormwater facilities, AND allows community staff to perform necessary maintenance." OR
  - Ordinance language that requires the owner(s) of private stormwater facilities to have them inspected at least annually by a registered engineer, to perform all maintenance indicated by such inspections, and to submit copies of all inspection reports and maintenance reports to the community.

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Community :

- A list or map that shows the locations of all publicly and privately owned stormwater facilities for which the community is requesting PUB credit.
- Documentation that shows that all public and private stormwater facilities have been inspected at least annually. This documentation should include a standard operating procedure for inspections and records of actual inspections and maintenance. This documentation is similar to, and may be combined with, documentation for channel debris removal (CDR) in Activity 540.
- 5. Impact adjustment. EITHER
  - If the community uses Option 1, it must document that all of the watershed that affects the community is regulated to the same standard. This is true if there is a regional stormwater management standard applied by all upstream communities, or if the community is entirely on an island, and no other communities on the island drain into the community, or if the community's upstream boundaries exactly match the watershed boundaries. Provide an Impact Adjustment Map that shows the area regulated by the community (usually the community's boundaries) (marked "aSMR") and the boundaries of the watershed that affects the community (marked "aW"). aSMR and aW must be equal. OR
    - \_ If the community uses Option 2, rSMR = 0.25 and no documentation is required. OR
- \_ If the community uses Option 3, it must provide an Impact Adjustment Map. Provide an Impact Adjustment Map that shows the area regulated by the community (usually the community's boundaries) (marked "aSMR") and the boundaries of the watershed that affects the community (marked "aW"). If areas within the upstream watershed are regulated by other communities, their boundaries must also be marked.
- b. Watershed Master Plan (WMP):
- 1. WMP Prerequisites (one prerequisite is credit for SMR):
- a. Documentation that the community has adopted a watershed management master plan for one or more of the watersheds that drain into the community. The margin next to where this appears in the documentation must be marked "WMP 1.a."
- c. The section of the plan that includes regulatory standards to manage future peak flows so that they do not increase over present values. The margin next to where this appears in the documentation must be marked "WMP 1.c."
- d. The section of the plan that includes regulatory standards to manage runoff from all storms up to and including at least the 25-year event. The margin next to where this appears in the documentation must be marked "WMP 1.c."
- 2. WMP Credit (Basic credit is provided for meeting the prerequisites):
- b. Documentation that shows management of peak flows for all storms up to and including the 100-year storm. The margin next to where this appears in the documentation must be marked "WMP 2.b."
- c. Documentation that shows management of peak flows AND volumes so that they do not exceed present values. The plan must include either regulations that meet these criteria, or must be based on a rainfall/runoff model that achieves these results. The margin next to where this appears in the documentation must be marked "WMP 2.c."

Activity Worksheet No.	Title
AW-210	CRS Application Cover Page
AW-214	Recertification Worksheet
AW-230	Modification/Cycle Cover Page
AW-310	Elevation Certificates
AW-320	Map Information Service
AW-330	Outreach Projects
AW-340	Hazard Disclosure
AW-350	Flood Protection Information
AW-360	Flood Protection Assistance
AW-410	Additional Flood Data
AW-420	Open Space Preservation
AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB	Closed Basin Lake Hazards
AW-CE	Coastal Erosion Hazards
AW-DB	Dunes and Beaches
AW-IJ	Ice Jam Hazards
AW-MF	Mudflow Hazards
AW-SU	Land Subsidence Hazards
AW-TS	Tsunami Hazards
AW-UF	Uncertain Flow Path Hazards

- d. Documentation that shows management of the runoff from all storms up to and including the 5-day event. If a community can demonstrate that an event shorter than five days is the locally appropriate "worst-case" runoff event for stormwater management, it may receive the credit if it uses that event for its regulatory standard. The margin next to where this appears in the documentation must be marked "WMP 2.d."
- e. Documentation that the plan identifies existing wetlands or other natural open space areas to be preserved from development to provide natural attenuation, retention, or detention of runoff. The margin next to where this appears in the documentation must be marked "WMP 2.e."
- f. Documentation that the plan prohibits development, alteration, or modification of existing natural channels. The margin next to where this appears in the documentation must be marked "WMP 2.f."
- g. Documentation that the plan requires that channel improvement projects use natural or "soft" approaches rather than gabions, riprap, concrete, or other "hard" techniques. The margin next to where this appears in the documentation must be marked "WMP 2.g."
  - h. Documentation that the plan was prepared in coordination with or as a part of the community's floodplain management plan credited under Activity 510. The margin next to where this appears in the documentation must be marked "WMP 2.h." EITHER
- The Floodplain Management Plan is mentioned prominently in the stormwater master plan and references in the watershed master plan demonstrate that it is intended to help implement the Floodplain Management Plan. OR
- \_\_\_\_ Hydrologic output from the watershed master plan is used as input for the Floodplain Management Plan.
- 3. Impact adjustment. Either:
- If the community uses Option 1, it must document that all of the watershed that affects the community is covered by its watershed master plan(s). This is true if there is a regional stormwater management plan applied by all upstream communities, or if the community is entirely on an island, and no other communities on the island drain into the community, or if the community's upstream boundaries exactly match the watershed boundaries. Provide an Impact Adjustment Map that shows the area covered by the watershed master plan(s) (marked "aWMP") and the boundaries of the watershed that affects the community (marked "aW"). aWMP and aW must be equal. OR
- \_\_\_\_ If the community uses Option 2, rWMP = 0.25 and no documentation is required. OR
- If the community uses Option 3, it must provide an Impact Adjustment Map. Provide an Impact Adjustment map that shows the area covered by the watershed master plan(s) (marked "aWMP") and the boundaries of the watershed that affects the community (marked "aW").
- c. Freeboard in B, C, D, and X Zones (FRX):
  - A copy of the ordinance or law language that requires elevation of the lowest floor or lowest opening of new buildings. The margin next to where this appears in the documentation must be marked "FRX."
  - \_\_\_\_ Development and building permit records that demonstrate enforcement.

Activity Worksheet No.	Title
AW-210	CRS Application Cover Page
AW-214	Recertification Worksheet
AW-230	Modification/Cycle Cover Page
AW-310	Elevation Certificates
AW-320	Map Information Service
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AW-340	Hazard Disclosure
AW-350	Flood Protection Information
AW-360	Flood Protection Assistance
AW-410	Additional Flood Data
AW-420	Open Space Preservation
AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB	Closed Basin Lake Hazards
AW-CE	Coastal Erosion Hazards
AW-DB	Dunes and Beaches
AW-IJ	Ice Jam Hazards
AW-MF	Mudflow Hazards
AW-SU	Land Subsidence Hazards
AW-TS	Tsunami Hazards
AW-UF	Uncertain Flow Path Hazards

d. Erosion and sedimentation control regulations (ESC):

A copy of the ordinance or law language that requires developers or property owners to use techniques that prevent erosion and soil loss from exposed land. The ordinance(s) or law must designate an office or official responsible for receiving complaints and monitoring compliance and it must include enforcement and abatement provisions. The margin next to where this appears in the documentation must be marked "ESC."

Development and building permit records that demonstrate enforcement.

e. Water quality regulations (WQ):

A copy of the ordinance or law language that requires new developments to implement appropriate best management practices to improve water quality. The margin next to where this appears in the documentation must be marked "WQ."

\_\_\_\_ Development and building permit records that demonstrate enforcement.

To facilitate verification of this activity, please provide the names of the CRS Coordinator and local stormwater manager if other than the CRS Coordinator:

	CRS Coordinator	Local Stormwater Manager
Name:		
Title:		
Phone:	Fax:	Fax:
Address:		
E-mail:		
Comments:		

Activity Worksheet No.	Title
AW-210	CRS Application Cover Page
AW-214	Recertification Worksheet
AW-230	Modification/Cycle Cover Page
AW-310	Elevation Certificates
AW-320	Map Information Service
AW-330	Outreach Projects
AW-340	Hazard Disclosure
AW-350	Flood Protection Information
AW-360	Flood Protection Assistance
AW-410	Additional Flood Data
AW-420	Open Space Preservation
AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB AW-CE AW-DB AW-IJ AW-MF AW-SU AW-SU AW-TS AW-UF	Closed Basin Lake Hazards Coastal Erosion Hazards Dunes and Beaches Ice Jam Hazards Mudflow Hazards Land Subsidence Hazards Tsunami Hazards Uncertain Flow Path Hazards

# **REPETITIVE LOSS REQUIREMENTS**

#### 501 Repetitive Loss List:

\_\_\_\_ The community has reviewed the repetitive loss list dated \_\_\_\_\_, 200\_\_\_, and

\_\_\_\_\_ Attached are updated Repetitive Loss Update Worksheets, AW-501. OR

\_\_\_\_ There are no changes to FEMA's repetitive loss list.

As the current CRS Coordinator for \_\_\_\_\_ [community name], I have examined the repetitive loss data provided for each of our \_\_\_\_\_[#] assigned repetitive loss properties. For each property in need of update, I have attached an AW-501 that reflects the current and accurate address, the correct NFIP community identification number, and all known mitigation actions with the primary source of funding noted. In addition, to the best of my knowledge and belief, any AW-501 not updated and submitted as part of this application has been checked and is not in need of update at this time.

Signature: \_\_\_\_\_\_ (Community CRS Coordinator)

## **502** Repetitive Loss Category:

After updating, the number of properties counted for CRS purposes is: \_\_\_\_ This community is a:

Category A community because it has removed all properties from being counted as repetitive loss properties for CRS purposes.

\_\_\_\_ Category B community with 1 to 9 properties counted for CRS purposes. OR

\_\_\_\_ Category C community with 10 or more properties counted for CRS purposes.

**NOTE:** ALL CATEGORY B AND C REPETITIVE LOSS COMMUNITIES MUST COMPLETE THE FOLLOWING SECTION 503 AND SUBMIT THE ACCOMPANYING DOCUMENTATION. CATEGORY C COMMUNITIES MUST ALSO RECEIVE CREDIT FOR A FLOODPLAIN MANAGEMENT PLAN UNDER ACTIVITY 510 (FLOODPLAIN MANAGEMENT PLANNING). A CATEGORY C COMMUNITY WILL REVERT TO CLASS 10 IF IT FAILS TO SUBMIT A PLAN.

#### 503 Repetitive Loss Area Outreach Project:

- \_\_\_\_\_a. A description of the causes of the repetitive flooding.
- \_\_\_\_\_b. A map with the repetitive loss areas identified.
- \_\_\_\_\_ c. The addresses for all the properties in the repetitive loss areas.
  - d. The number of buildings in the repetitive loss areas is: \_\_\_\_\_( = bRLA).
- e. The outreach project sent to all properties in the repetitive loss areas.

#### The following will be needed at the annual recertification:

\_ The outreach project sent to all properties in the repetitive loss areas.

Activity Worksheet No.	Title
AW-210	CRS Application Cover Page
AW-214	Recertification Worksheet
AW-230	Modification/Cycle Cover Page
AW-310	Elevation Certificates
AW-320	Map Information Service
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AW-350	Flood Protection Information
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AW-410	Additional Flood Data
AW-420	Open Space Preservation
AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB	Closed Basin Lake Hazards
AW-CE	Coastal Erosion Hazards
AW-DB	Dunes and Beaches
AW-IJ	Ice Jam Hazards
AW-MF	Mudflow Hazards
AW-SU	Land Subsidence Hazards
AW-TS	Tsunami Hazards
AW-UF	Uncertain Flow Path Hazards

To facilitate verification of this activity, please provide the names of the CRS Coordinator and local repetitive loss contact person, if other than the CRS Coordinator:

	CRS Coordinator	Repetitive Loss Contact
Name:		
Title:		
Phone:	Fax:	Fax:
Address:		
E-mail:		
Comments:		

Activity Worksheet No.	Title
AW-210	CRS Application Cover Page
AW-214	Recertification Worksheet
AW-230	Modification/Cycle Cover Page
AW-310	Elevation Certificates
AW-320	Map Information Service
AW-330	Outreach Projects
AW-340	Hazard Disclosure
AW-350	Flood Protection Information
AW-360	Flood Protection Assistance
AW-410	Additional Flood Data
AW-420	Open Space Preservation
AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB AW-CE AW-DB AW-IJ AW-MF AW-SU AW-SU AW-TS AW-UF	Closed Basin Lake Hazards Coastal Erosion Hazards Dunes and Beaches Ice Jam Hazards Mudflow Hazards Land Subsidence Hazards Tsunami Hazards Uncertain Flow Path Hazards

# **510 FLOODPLAIN MANAGEMENT PLANNING**

## 511.a Floodplain Management Planning (FMP)

**Credit Points:** Enter the section or page number in the plan where each credited item can be found.

	CRS Step	Section/Page Score	Step Total
1 (	Organize to prepare the plan.	Section age Score	iotai
1. \	a. Supervision or direction of a professional planner (2)		
	b. Planning committee of department staff (6)		_
	c. Process formally created by the community's governing board (2)		
2.	Involve the public.	Item	
۷.	a. Planning process conducted through a planning committee (40)	item	
	b. Public meetings held at the beginning of the planning process (15)		_
	c. Public meeting held on draft plan (15)		_
	d. Questionnaires ask the public for information (5)		_
	e. Recommendations are solicited from advisory groups, etc. (5)		
	f. Other public information activities to encourage input (5)		
3.	Coordinate with other agencies.		
	a. Review of existing studies and plans (REQUIRED) (3)		
	b. Invited neighboring communities and other agencies (REQUIRED) (1)		
	c. Contacted communities and NFIP and EM agencies (4)		
	d. NWS, ARC and others are asked how they can help community (4)		
	e. Meetings are held with agencies on mitigation strategies (10)		
	f. Draft action plan sent to agencies for comments (3)		
4.	Assess the hazard.		
	a. Plan includes an assessment of the flood hazard (REQUIRED) with:		
	(1) A map of known flood hazards (5)		
	(2) A description of known flood hazard (5)		1
	(3) A discussion of past floods (5)		
	b. The plan describes other natural hazards (REQUIRED FOR DMA) (5)		

Activity Worksheet No.	Title	Activity Worksheet No.	Title
AW-210 AW-214 AW-230	CRS Application Cover Page Recertification Worksheet Modification/Cycle Cover Page	AW-CB AW-CE AW-DB AW-IJ	Closed Basin Lake Hazards Coastal Erosion Hazards Dunes and Beaches Ice Jam Hazards
AW-310 AW-320	Elevation Certificates Map Information Service	AW-IJ AW-MF AW-SU AW-TS	Mudflow Hazards Land Subsidence Hazards Tsunami Hazards
AW-330 AW-340 AW-350 AW-360	Outreach Projects Hazard Disclosure Flood Protection Information Flood Protection Assistance	AW-13 AW-UF	Uncertain Flow Path Hazards
AW-410 AW-420 AW-430 AW-430LD AW-440 AW-450	Additional Flood Data Open Space Preservation Higher Regulatory Standards Land Development Criteria Flood Data Maintenance Stormwater Management		
AW-500 AW-510 AW-520 AW-530 AW-540	Repetitive Loss Requirements Floodplain Management Planning Acquisition and Relocation Flood Protection Drainage System Maintenance		
AW-610 AW-620 AW-630	Flood Warning Program Levee Safety Dam Safety		
AW-710 AW-720 AW-720m	Community Growth Adjustment Community Credit Calculations Community Credit Calculations (Modification)		

	Community :		
CRS Step	Section/Page	Score	Total
5. Assess the problem.			
a. Summary of each hazard identified in the hazard assessment and		1	
their community impact (REQUIRED) (2)			
<ul> <li>b. Description of the impact of the hazards on:</li> <li>(1) Life a fate has the number of the manual sectors (5)</li> </ul>			
(1) Life, safety, health, procedures for warning and evacuation (5)			
(2) Critical facilities and infrastructure (5)			
(3) The community's economy and tax base (5)			
<ul> <li>Number and types of buildings subject to the hazards (5)</li> <li>Review of all flood insurance claims (4)</li> </ul>			
e. Natural and beneficial functions (4)			
Development, redevelopment, and population trends (5)			
f. 6. Set goals. (REQUIRED) (2)			
7. Review possible activities.			
a. Preventive activities (5)			
b. Property protection activities (5)			
c. Natural resource protection activities (5)			
d. Emergency services activities (5)			
e. Structural projects (5)			
f . Public information activities (5)			
8. Draft an action plan.			
Actions must be prioritized (REQUIRED)			
a. Recommendations for activities from two of the six categories (10)			
b. Recommendations for activities from three of the six categories (20)			
c. Recommendations for activities from four of the six categories (30)			
d. Recommendations for activities from five of the six categories (45)			
e. Post-disaster mitigation policies and procedures (10)			
f. Recommendations from Habitat Conservation Plan (10)			
g. Action items for mitigation of other hazards (5)			

Activity Worksheet No.	Title	Activity Worksheet No.	Title
AW-210 AW-214 AW-230	CRS Application Cover Page Recertification Worksheet Modification/Cycle Cover Page	AW-CB AW-CE AW-DB	Closed Basin Lake Hazards Coastal Erosion Hazards Dunes and Beaches
AW-310 AW-320	Elevation Certificates Map Information Service	AW-IJ AW-MF AW-SU AW-TS	Ice Jam Hazards Mudflow Hazards Land Subsidence Hazards Tsunami Hazards
AW-330 AW-340 AW-350 AW-360	Outreach Projects Hazard Disclosure Flood Protection Information Flood Protection Assistance	AW-UF	Uncertain Flow Path Hazards
AW-410 AW-420 AW-430 AW-430LD AW-440 AW-450	Additional Flood Data Open Space Preservation Higher Regulatory Standards Land Development Criteria Flood Data Maintenance Stormwater Management		
AW-500 AW-510 AW-520 AW-530 AW-540	Repetitive Loss Requirements Floodplain Management Planning Acquisition and Relocation Flood Protection Drainage System Maintenance		
AW-610 AW-620 AW-630	Flood Warning Program Levee Safety Dam Safety		
AW-710 AW-720 AW-720m	Community Growth Adjustment Community Credit Calculations Community Credit Calculations (Modification)		

	Community :		
CRS Step	Section/Page	Score	Total
9. Adopt the plan. (2)			
<ul> <li>10. Implement, evaluate, and revise.</li> <li>a. Procedures to monitor and recommend revisions (REQUIRED) (2)</li> <li>b. Same planning committee or successor committee that qualifies under Section 511.a.2(a) does the evaluation (13)</li> </ul>			

Add the totals for steps 1 through 10 above:

#### 514 Credit Documentation:

- a. FMP: The completed CRS activity worksheet (AW-510-1–510-3) or the mitigation plan review crosswalk.
- \_\_\_\_ b. A copy of the floodplain management plan, hazard mitigation plan, and/or Habitat Conservation Plan.
- c. Documentation showing how the public was involved in preparing or reviewing the plan, including a copy of the notice(s) advising residents about the public meeting(s) held pursuant to steps 2(b) and (c), and a record of the meeting(s).
- d. Copies of correspondence, meeting notes, or other materials that document the coordination with other municipalities, agencies, and organizations credited under Sections 511.a.3(b) (f).
- e. Documentation showing that the plan was adopted by the community's governing board.

#### The following will be needed at the annual recertification:

g. An annual report on evaluating progress toward implementing the action plan's objectives.

#### The following will be needed at least every five years:

\_\_\_\_ h. An update to the floodplain management or hazard mitigation plan.

Activity Worksheet No.	Title	Activity Worksheet No.	Title
AW-210	CRS Application Cover Page	AW-CB	Closed Basin Lake Hazards
AW-214	Recertification Worksheet	AW-CE	Coastal Erosion Hazards
AW-230	Modification/Cycle Cover Page	AW-DB AW-IJ	Dunes and Beaches Ice Jam Hazards
AW-310	Elevation Certificates	AW-MF	Mudflow Hazards
AW-320	Map Information Service	AW-SU AW-TS	Land Subsidence Hazards Tsunami Hazards
AW-330	Outreach Projects	AW-UF	Uncertain Flow Path Hazards
AW-340	Hazard Disclosure		
AW-350	Flood Protection Information		
AW-360	Flood Protection Assistance		
AW-410	Additional Flood Data		
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AW-530	Flood Protection		
AW-540	Drainage System Maintenance		
AW-610	Flood Warning Program		
AW-620	Levee Safety		
AW-630	Dam Safety		
AW-710	Community Growth Adjustment		
AW-720	Community Credit Calculations		
AW-720m	Community Credit Calculations (Modification)		

## 511.b Repetitive Loss Area Analysis (RLAA) Credit Points:

Complete one copy of this page for each analysis.

- 1. Show that all repetitive loss areas are mapped as described in Section 503.b.
- 2. Upon request, provide the data collected on each building in the area(s) using the "limited data view" of the National Flood Mitigation Data Collection Tool.
  - 3. Enter the section or page number in the analysis where each credited item can be found.
- \_\_\_\_\_ Step 1. Property owners were advised that the analysis would be conducted.
- \_\_\_\_\_ Step 2. Data were collected on each building and the cause(s) of the repetitive flood damage was determined.
- \_\_\_\_\_ Step 3. Alternative mitigation approaches were reviewed to determine whether any property protection measures or drainage improvements are feasible.
- \_\_\_\_\_ Step 4. Agencies or organizations that may have plans that could affect the cause or impacts of the flooding were contacted.
- \_\_\_\_\_ Step 5. Document the findings, including a map showing all parcels in the area, recommendations, and how the recommendations will be funded.
- \_\_\_\_\_4. A memo or other documentation showing that the head of the appropriate department has approved the analysis.
- \_\_\_\_\_ If the community did not conduct analyses of all the repetitive loss areas, provide the following:
  - a. The number of buildings in the repetitive loss areas where the analyses have been completed (bAA) \_\_\_\_\_\_.
  - b. The number of buildings in all of the community's repetitive loss areas (bRLA) \_\_\_\_\_\_.

#### 514 Credit Documentation:

- \_\_\_\_ RLAA: The completed CRS activity worksheet (AW-510-4) for each analysis.
- e. A copy of each repetitive loss area analysis to be credited and a memo or other documentation showing that the head of the appropriate department has approved it. The National Flood Mitigation Data Collection Tool database file must also be provided, if requested.

#### The following will be needed at the annual recertification:

f. An annual report on evaluating progress toward implementing the action plan's objectives and/or the recommendations of the area analyses. A single report may be prepared for all analyses.

Activity Worksheet No.	Title	Activity Worksheet No.	Title
AW-210 AW-214 AW-230	CRS Application Cover Page Recertification Worksheet Modification/Cycle Cover Page	AW-CB AW-CE AW-DB	Closed Basin Lake Hazards Coastal Erosion Hazards Dunes and Beaches
AW-310 AW-320	Elevation Certificates Map Information Service	AW-DB AW-IJ AW-MF AW-SU	Ice Jam Hazards Mudflow Hazards Land Subsidence Hazards Tsunami Hazards Uncertain Flow Path Hazards
AW-330 AW-340 AW-350	Outreach Projects Hazard Disclosure Flood Protection Information	AW-SU AW-TS AW-UF	
AW-360 AW-410	Flood Protection Assistance Additional Flood Data		
AW-420 AW-430 AW-430LD	Open Space Preservation Higher Regulatory Standards Land Development Criteria		
AW-440 AW-450	Flood Data Maintenance Stormwater Management		
AW-500 AW-510 AW-520 AW-530 AW-540	Repetitive Loss Requirements Floodplain Management Planning Acquisition and Relocation Flood Protection Drainage System Maintenance		
AW-610 AW-620 AW-630	Flood Warning Program Levee Safety Dam Safety		
AW-710 AW-720 AW-720m	Community Growth Adjustment Community Credit Calculations Community Credit Calculations (Modification)		

# 512 Impact Adjustment:

a. Option 1:	rFMP = 1.0	rRLAA = 1.0
b. Option 2:	rFMP = 0.25	rRLAA = 0.25
c. Option 3.	rRLAA = <u>bAA</u>	=

## 513 Credit Calculation:

a. FMP =  $\__{.}^{bRLA}$ . If any of the step totals in subsections 511.a.1–10 is 0, then FMP = 0.

b. FMP x rFMP	cFMP =
RLAA x rRLAA	cRLAA =
HCP	cHCP =
Add the lines above =	
c510 = value above rounded to the nearest whole number:	c510 =
Enter this value on AW-720-1.	

Comments:

Activity Worksheet No.	Title	Activity Worksheet No.	Title
AW-210 AW-214 AW-230	CRS Application Cover Page Recertification Worksheet Modification/Cycle Cover Page	AW-CB AW-CE AW-DB	Closed Basin Lake Hazards Coastal Erosion Hazards Dunes and Beaches
AW-310 AW-320	Elevation Certificates Map Information Service	AW-IJ AW-MF AW-SU AW-TS	Ice Jam Hazards Mudflow Hazards Land Subsidence Hazards Tsunami Hazards
AW-330 AW-340 AW-350 AW-360	Outreach Projects Hazard Disclosure Flood Protection Information Flood Protection Assistance	AW-UF	Uncertain Flow Path Hazards
AW-410 AW-420 AW-430 AW-430LD AW-440 AW-450	Additional Flood Data Open Space Preservation Higher Regulatory Standards Land Development Criteria Flood Data Maintenance Stormwater Management		
AW-500 AW-510 AW-520 AW-530 AW-540	Repetitive Loss Requirements Floodplain Management Planning Acquisition and Relocation Flood Protection Drainage System Maintenance		
AW-610 AW-620 AW-630	Flood Warning Program Levee Safety Dam Safety		
AW-710 AW-720 AW-720m	Community Growth Adjustment Community Credit Calculations Community Credit Calculations (Modification)		

# 520 ACQUISITION AND RELOCATION

#### 522 Impact Adjustment:

a. Option 1: (bAR \_\_\_\_\_ x 5) + (bRL \_\_\_\_\_ x 10) + (bSRL \_\_\_\_\_ x 15) = \_\_\_\_\_. Under Option 1, the maximum value for bAR, bRL or bSRL is 20. The maximum credit for c520 under Option 1 is 300.

b. Option 2: rAR = <u>100 x (bAR + (2 x bRL ) + (3 x bSRL ))</u> = \_\_\_\_\_ bSF \_\_\_\_ + bAR \_\_\_\_ + bRL \_\_\_\_ + bSRL \_\_\_\_\_

rAR cannot be greater than 100.0.

## 523 Credit Calculation:

- a. Option 1: c520 = (bAR \_\_\_\_\_ x 5) + (bRL) \_\_\_\_ x 10) + (bSRL \_\_\_\_\_ x 15) = \_\_\_\_\_
- b. Option 2: c520 = 32 x rAR \_\_\_\_\_ = \_\_\_\_

c520 = value above rounded to the nearest whole number: c520 = \_\_\_\_\_

Enter this value on AW-720-1.

#### 524 Credit Documentation:

- a. A map showing the location of parcels where buildings have been demolished or relocated since the effective date of the FIRM and the total number of such buildings.
- b. Documentation showing that each site credited can also qualify for credit as preserved open space.
- \_\_\_\_ c. Impact Adjustment Option 2 Calculations showing the number of buildings in the SFHA (bSF).
- \_\_\_\_ d. Real estate or permit records that document the date of removal of each building.
- \_\_\_\_ e. Either the non-repetitive loss buildings (bAR) are \_\_\_\_ located within the SFHA OR \_\_\_\_ outside the SFHA and documentation is attached showing that floodplain regulations are in effect in the area outside the SFHA.

#### 504 National Flood Insurance Reform Act of 1994:

- \_\_\_\_\_ No projects with CRS credit were funded with Flood Mitigation Assistance Program Funds.
- \_\_\_\_ Flood Mitigation Assistance Program Funds were used to finance the acquisition and relocation of \_\_\_\_\_ buildings which are on the list of buildings for CRS credit.

Comments:

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AW-430	Higher Regulatory Standards
AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
AW-450	Stormwater Management
AW-500	Repetitive Loss Requirements
AW-510	Floodplain Management Planning
AW-520	Acquisition and Relocation
AW-530	Flood Protection
AW-540	Drainage System Maintenance
AW-610	Flood Warning Program
AW-620	Levee Safety
AW-630	Dam Safety
AW-710	Community Growth Adjustment
AW-720	Community Credit Calculations
AW-720m	Community Credit Calculations (Modification)
AW-CB AW-CE AW-DB AW-IJ AW-MF AW-SU AW-SU AW-TS AW-UF	Closed Basin Lake Hazards Coastal Erosion Hazards Dunes and Beaches Ice Jam Hazards Mudflow Hazards Land Subsidence Hazards Tsunami Hazards Uncertain Flow Path Hazards

# **530 FLOOD PROTECTION**

#### 532 Impact Adjustment:

a. Option 1.

-	
Number of protected non-repetitive loss buildings in the regulator	y floodplain:
Number of protected non-Severe Repetitive Loss buildings x	2 =
Number of protected Severe Repetitive Loss buildings x 3	=
Add the above lines	
rPB = 0.15 x the total of the above	=
b. Option 2. rPB = <u>100 x PB</u> = bSF	

## 533 Credit Calculation:

28 x rPB \_\_\_\_\_= \_\_\_\_\_c530 = value above rounded to the nearest whole number:c530 = \_\_\_\_\_

Enter this value on AW-720-1.

## 534 Credit Documentation:

- \_\_\_\_ a. and b. Elevation certificates, completed AW-530-3, or other documentation that shows that each protection project meets this activity's prerequisites and shows the type of protection measure and protection level for each retrofitted building.
- \_\_\_\_ c. A map showing the location of all protected buildings for which credit is being applied.
- \_\_\_\_ d. Impact Adjustment Option 2 Calculations showing the number of buildings in the SFHA (bSF).
- e. Either the non-repetitive loss protected buildings are \_\_\_\_\_ located within the SFHA OR \_\_\_\_ outside the SFHA and documentation is attached showing that floodplain regulations are in effect in the area outside the SFHA.

#### 504 National Flood Insurance Reform Act of 1994:

- \_\_\_\_ No projects with CRS credit were funded with Flood Mitigation Assistance program funds.
- \_\_\_\_ Flood Mitigation Assistance program funds were used to finance the protection of \_\_\_\_\_ buildings which are on the list of buildings for CRS credit.

#### Comments:

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Community :

# **531 RETROFITTED BUILDINGS**

If the building is a repetitive loss or Severe Repetitive Loss building, use ditto marks and enter the same address two or three times as appropriate.

ilding # <u>Address</u>	<u>FPP</u>	• <u>FPB</u> =	<u>FPI</u> x <u>TU</u>	= <u>FPI x</u>
		=	×x	=
<u> </u>	·			
	·			
	······			
	· ·	=	×x	=
		=	×X	=
		=	×X	=
		=	×X	=
	······	=	×x	=
		=	×X	=
		=	×x	=
		=	×x	=
	·····	=	×X	=
		- =	× x	=

Add the lines above: PB = (TUi x FPIi) =

Add the total of each page to obtain (TUi x FPIi) for the value of PB.

Activity Worksheet 086-0-23A

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## **RETROFITTING WORKSHEET**

This is an optional form that may be used to record CRS credit criteria for retrofitting projects that are not in a high hazard area and that do not need to be designed or approved by an engineer or architect. Elevated buildings should be documented with a FEMA elevation certificate.

Property Address:

Permit record. EITHER Permit # \_\_\_\_\_ Date of Permit: \_\_\_\_\_ OR

\_\_\_\_ The project meets all requirements of the regulations currently in effect.

\_\_\_\_ The project was completed after the effective date of the initial FIRM.

#### Building/project condition.

\_\_\_\_ The building or project appears to be maintained.

#### Human intervention. EITHER:

\_\_\_\_ The project does not require human intervention. OR

\_\_\_\_ The project requires human intervention and there is adequate warning time.

Approximate duration of flood events: \_\_\_\_\_\_ hours/days.

#### High hazard area. EITHER:

- \_\_\_\_ The building is NOT located in a V Zone, floodway with velocity > 5 feet per second, or an area subject to special hazard. OR
- \_\_\_\_ The building is located in one of the high hazard areas and the design was certified by a licensed professional engineer or architect.

#### Dry floodproofing.

- The project was designed by an engineer and the design accounts for interior drainage, seepage, and underdrainage. (TU = 0.6)
- The project does not depend on human intervention to close openings; the project protects to a level less than 3 feet over the first floor; the design accounts for internal drainage, seepage, and underdrainage; and the building does not have a basement. (TU = 0.4)

\_\_\_\_ There is no documentation of how openings, internal drainage, seepage, or underdrainage are handled. (TU = 0.2)

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#### Wet floodproofing.

- The project was designed by a licensed engineer or architect. (TU = 0.5)
- \_\_\_\_ The project was not designed by a licensed engineer or architect. (TU = 0.3)
- \_\_\_\_ The furnace, water heater, electrical breaker box, and other utilities are relocated above flood level. (TU = 0.2)

#### Sewer backup protection.

- \_\_\_\_ The building is located in the SFHA. (TU = 0.2)
- \_\_\_\_ The building is located outside of the SFHA and the community has a building code or other regulations that require positive drain sewers or other measures that prevent sewer backup into new buildings. (TU = 0.1)

#### Flood protection improvement (FPI).

Before the retrofitting project, the building was protected from theyear flood FPB =	
After the retrofitting project, the building was protected from theyear flood FPP =	
The values for FPB and FPP are: 0.0 for protection to less than the 10-year flood 0.3 for protection to the 10-year flood, but less than the 25-year flood 0.5 for protection to the 25-year flood, but less than the 50-year flood 0.8 for protection to the 50-year flood, but less than the 100-year flood 0.9 for protection to the 100-year flood 1.0 for protection to the 100-year plus one foot or more 1.0 for protection to the 500-year flood	
Source of flood recurrence interval if other than FIS:	
CRS scores: TU = FPB = FPP =	
This property is on the FEMA repetitive loss list.	
This property is on the FEMA Severe Repetitive Loss list.	
I certify that the items checked above are correct to the best of my knowledge.	
Name (signed):	
Name (printed): Date:	

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CDR =

Community : \_\_\_\_\_

# 540 DRAINAGE SYSTEM MAINTENANCE

## 541 Credit Points:

- a. CDR
  - 1. 200, if the program includes all four requirements:
  - 2. 50, if there are measures for specific problem sites:
  - 3. 50, if there is a capital improvement program:
- CDR = the total of lines 1 through 3 above:

## 542 Impact Adjustment:

- a. Option 1: rCDR = 1.0
- b. Option 2: rCDR = 0.2
- c. Option 3: rCDR = <u>aCDR</u> = \_\_\_\_\_ aDC \_\_\_\_\_

## 543 Credit Calculation:

a. cCDR = CDR \_\_\_\_\_ x rCDR \_\_\_\_\_cCDR = \_\_\_\_\_b. SDRSDR = \_\_\_\_\_c. cEPM (from AW-CE)cEPM = \_\_\_\_\_Add the lines above =\_\_\_\_\_\_c540 = above rounded to nearest whole number:c540 = \_\_\_\_\_\_Enter this value on AW-720-1.c540 = \_\_\_\_\_\_

#### 544 Credit Documentation:

- a. CDR: Drainage inspection and maintenance procedures, instructions, or other documents that explain the community's routine inspection and debris removal program:
- \_\_\_\_1. Identification of the person or position responsible for the various aspects of the maintenance program;
- 2. Description of the community's drainage system and areas subject to the maintenance program;
- 3. Explanation of the procedures for inspection, including when regular inspections are conducted and how soon inspections are conducted after a complaint or a storm;
- 4. Explanation of the debris removal procedures, i.e., how soon after an inspection an area must be cleared and what can and cannot be removed; and
- \_\_\_\_5. Samples of records that are kept to document both the inspections and the removal projects.
- \_\_\_\_\_ If the community is requesting credit for special inspection and maintenance of problem sites (Section 431.a.2), attach a master list of the community's drainage maintenance problem sites that are inspected and maintained differently or more frequently. The problem sites must be part of the drainage system that the community has mapped for its CDR credit.

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- b. CDR: Capital improvement program: If the community is requesting credit for an ongoing program, such as a capital improvements plan, to eliminate or correct problem sites or to construct "low maintenance" channels or other facilities (Section 431.a.3):
- 1. A master list of the community's drainage maintenance problem sites that are in need of elimination or correction. The problem sites must be part of the drainage system that the community has mapped for its CDR credit.
- 2. Recommended correction measures for the problem sites.
- \_\_\_\_\_ 3. Documentation that funds are spent on improvement projects each year.
- c. SDR: Stream dumping regulations:
- A copy of the regulatory language that prohibits dumping in the community's drainage system. The ordinance or law must designate an office or official responsible for receiving complaints and monitoring compliance and it must include enforcement and abatement provisions. Mark this documentation "SDR."
- d. SDR: Stream dumping regulations publicity EITHER
- \_\_\_\_ A copy of the outreach project. OR
- \_\_\_\_ Photographs of "no dumping" signs.
- e. CDR: Impact Adjustment Map:
- \_\_\_\_ A map showing all parts of the surface drainage system in the developed areas of the community and showing those parts that are inspected and maintained under CDR.
- f. CDR: Records:
- \_\_\_\_ Copies of inspection and maintenance records.

Comments:

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# 610 FLOOD WARNING PROGRAM

## 611 Credit Points:

a.	2. Flood threat recognition system (FTR):	
	(a) (1) Act on NWS warning (20 points):	
	(2) Prediction model (5 or 20 points):	
	(b) (1) Data collection (15 or 20 points):	
	(2) Gage density (10 points):	
	(3) Prediction model (5 or 10 points):	
	FTR = the total of $(a)(1)$ and $(2)$ OR $(b)(1)$ through $(b)(3)$ above:	FTR =
b.	2. Emergency warning dissemination (EWD):	
	(a) Adopted policy (10 points):	
	(b) Outdoor system (15 points):	
	(c) Door to door (30 points):	
	(d) Emergency Alert System (10 points):	
	(e) Telephone (15 points):	
	(f) Cable TV override (10 points):	
	(g) AM transmitters (10 points):	
	(h) Other system:	
	EWD = the total of (a) through (h) above. If the total is greater than 60, then EWD = 60.:	EWD =
C.	2. Other response efforts (ORE):	
	(a) Plan keyed to predicted flood levels (20 points):	
	(b) Plan assigns tasks (10 points):	
	(c) Plan identifies resources needed (20 points):	
	ORE = the total of (a) through (c) above:	ORE =
d.	2. Critical facilities planning (CFP):	
	(a) CFP1 Names and numbers (10 points):	CFP1 =
	(b) CFP2 Warning coordination (20 points):	CFP2 =
	(c) CFP3 Facilities have own plans (20 points):	CFP3 =
e.	SRC	SRC =

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	Community :		
612	In	npact Adjustment:	
012		Option 1: 1. rFTR = 1.0 2. rEWD = 1.0 3. rORE = 1.0 4. rCF	P3 = 1.0
	b.	Option 2: 1. rFTR = 0.25 2. rEWD = 0.25 3. rORE = 0.25 4. rC	FP3 = 0.25
	c.	Option 3: 1. rFTR = <u>bFTR</u> = 2. rEWD = <u>bEWD</u> bSF	
		3. rORE = <u>bORE</u> = bSF	
613	C	redit Calculation:	
	a.	cFTR = FTR x rFTR	cFTR =
	b.	cEWD = EWDx rEWD	cEWD =
	C.	cORE = ORE x rORE	cORE =
	d.	cCFP = CFP1 + CFP2 + (CFP3 x rCFP3)	cCFP =
	e.	SRC	SRC =
	f.	Add lines a through e above =	
	c6′	10 = value above rounded to the nearest whole number:	c610 =
		Enter this value on AW-720-1.	

To facilitate verification of this activity, please provide the names of the CRS Coordinator and local emergency manager if other than the CRS Coordinator:

	CRS Coordinator	Local Emergency Manager
Name:		
Title:		
Phone:	Fax:	Fax:
Address:		
E-mail:		
Comments:		

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#### 614 Credit Documentation:

Note: If Activity 610 credit has been received before and there is no change in the flood warning program and/or the emergency operations plan, go to page AW-610-5.

## Flood Threat Recognition System (FTR):

1. Provide a description of the local flood hazards. [Include sources of flooding, areas affected and impact of flooding on the community.] [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]

If the community does NOT HAVE a description of its flood hazards, FTR=0 and c610=0.

- 2. Provide a description of the Flood Threat Recognition System. [Include documentation of early notice of a flood at one or more locations within the community. If appropriate, describe show how the community provides flood forecasts for areas other than the above forecast points.] [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 3. If the community or another local agency use rainfall and/or runoff data on a real-time basis and makes flood forecasts from these data, provide a description of the system. [*Tell whether the collection system is based on precipitation and/or river gage data that are manually or automatically read and reported, the location gage network density, etc.*] [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 4. Provide documentation showing the method used to predict downstream arrival time and peak flow or elevations. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 5. If flood warnings are received from another agency,
  - Include a description of how the notice is received.
     [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
  - Identify local agency procedures for monitoring the system. [Include the written instructions available to the person monitoring the warning system.] [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 6. Provide examples of one or more flood forecast notices issued for the community. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 7. Provide documentation of the annual maintenance and testing of the data collection, communications, and data analysis components of the flood threat recognition system. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]

#### **Emergency Warning Dissemination (EWD):**

- 8. Provide documentation that the local government has adopted an emergency response plan. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 9. Describe the community's program for testing warning dissemination equipment and procedures. [*Include the frequency of the test.*] [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]

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Provide a copy of the adopted policy that specifies when and how a warning is issued. [Include the written procedures that tell warning point personnel when, how and what messages to issue.] [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]

- 10. If the community uses either a sound or siren system to disseminate flood warnings, provide a map showing the location of the sirens and the coverage area where they can be heard inside a closed building during storm conditions. [See Attachment \_\_\_\_ pages \_\_\_\_\_.]
- 11. If the community uses door-to-door contact or a mobile public address system for flood warning, provided documentation describing how the tasks are organized and conducted. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 12. If the community's response plan includes flood warning using the Emergency Alert System, provide a copy of the community's activation policies, procedures, and example messages. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 13. If a telephonic system is used to warn all residents in the SFHA, provide documentation describing how and when the system is updated, and its backup system for warning residents when there is no telephone answer provided. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 15. If the community uses a cable television override system for flood warning, provide documentation of its procedures for activating the system. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 16. If the community has established local AM radio transmitters used for public warning announcements, provide documentation on the procedures for their use. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 17. If the community has other warning methods not described above, these may be submitted for credit evaluation. [See Attachment \_\_\_\_ pages \_\_\_\_.]

#### Other Response Efforts (ORE):

18. Provide a copy of those sections of the local emergency operations plan, flood response plan, standard operating procedures, and other documentation that show how the local government responds to floods. [See Attachment \_\_\_\_ pages \_\_\_\_\_.]

#### **Critical Facilities Planning (CFP):**

- 19. If the community maintains the names and telephone numbers of the operators of ALL critical facilities affected by flooding, provide documentation that this information is updated at least annually. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 20. If the community provides special flood warnings or early notifications directly to ALL facilities that need them, provide a copy of the section of the adopted plan that describes these arrangements and how they are implemented. [See Attachment \_\_\_\_\_ pages \_\_\_\_\_.]
- 21. Provide a list of critical facilities that need flood response plans. Identify those critical facilities with flood response plans that have been developed, reviewed, or accepted by the community. [Note: The local government may be asked to provide one or more of the plans on the list to the technical reviewer.] [See Attachment \_\_\_\_ pages \_\_\_\_\_.]

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AW-420	Open Space Preservation
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AW-430LD	Land Development Criteria
AW-440	Flood Data Maintenance
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Community : Cycle verification of previously credited flood warning program 22. What is the date of the current flood warning program (Emergency Operations Plan)? If this date is more recent than the date of the plan used for the previous verification, obtain a copy of those portions related to flood warning and flood operations. Send these materials for technical review. [See Attachment \_\_\_\_.] 23. Has there been a flood insurance restudy since the last verification? \_\_\_\_\_Yes \_\_\_\_\_No A. If yes, did the new Flood Insurance Study add streams to the SFHA? Yes \_\_\_\_\_No If yes, mark these on the FIRM and send for review. [See Attachment .] B. Have these new streams been included in the flood warning program? Yes. Provide a description of the flood threat recognition system for these areas. Tell how many SFHA buildings are covered by the expanded warning area. [See Attachment \_\_\_\_.] \_\_\_\_ No. What percentage of the SFHA buildings are located in the area not covered by flood forecast with peak flow or elevation data? 24. Has there been a flood since the last verification that resulted in the loss of life or \$50,000 in damage? \_\_\_\_Yes \_\_\_\_No A. Was a flood warning evaluation report prepared? \_\_\_\_Yes \_\_\_\_No If yes, attach a copy of the report to this form. [See Attachment \_\_\_\_.] B. Were changes made to the flood warning program as a result of the evaluation report? \_\_\_\_Yes \_\_\_\_No If yes, attach a copy of the changes to this form. [See Attachment \_\_\_\_.] 25. Has the flood warning program been modified since the last verification for other reasons? \_\_\_\_Yes \_\_\_\_No If yes, attach a copy of the changes to this form. [See Attachment \_\_\_\_\_.] 26. Have emergency warning dissemination methods been added, deleted, or modified since the last verification? \_\_\_\_Yes \_\_\_\_No If yes, attach a copy of the changes. [See Attachment .] 27. Has the local government's area of jurisdiction changed since the last verification? \_\_\_\_Yes \_\_\_\_No A. If yes, do the changes add SFHA to the community's area of jurisdiction? Yes \_\_\_\_\_No If yes, mark these new areas on the FIRM and attach. [See Attachment \_\_\_\_\_.] B. If yes, have these new streams been included in the flood warning program? \_\_\_\_\_Yes. Provide a description of the flood threat recognition system for these areas. [See Attachment \_\_\_\_.] No. What percentage of the SFHA buildings are located in the area not covered by flood forecast with peak flow or elevation data?

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If the local government requested credit for critical facilities planning,

- A. How many critical facilities within the community's jurisdiction need advanced warning for a flood event? \_\_\_\_\_
- B. How many critical facility managers receive the advanced warning they have identified they need to prepare for a flood? \_\_\_\_\_\_ Send a list of critical facilities with their required warning time and contact information for technical review. [See Attachment \_\_\_\_.]
- 28. How many critical facilities have flood response plans that have been developed, reviewed, or approved by the local government? \_\_\_\_\_ Send a list of critical facilities with flood response plans that have been developed, reviewed or approved by the local government. [See Attachment \_\_\_\_.]

Comments:

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#### 612 Impact Adjustment:

Credit points for each element are adjusted to reflect the extent of coverage of the flood warning program. Local governments should describe the impact of their flood warning program using one of the following options.

Option 1:

The flood threat recognition system, the warning dissemination system, and the flood response tasks COVER THE ENTIRE Special Flood Hazard Area (SFHA). \_\_\_\_ Yes \_\_\_\_ No [Remember, the area credited by the flood warning program is the area where the warning program can forecast specific flood conditions in the future. This includes areas where flood elevations and arrival times can be forecast. It does not include areas where the National Weather Service or others can only predict flooding "along streams and low areas."]

Option 2:

If the flood threat recognition system, the warning dissemination system, and the flood response tasks COVER LESS THAN THE ENTIRE SFHA, the local government may use a default value of 0.25 for rFTR, rEWD, and rORE. \_\_\_\_\_ Yes \_\_\_\_\_ No

Option 3:

Where local flood warning programs COVER MORE THAN 25% OF THE STRUCTURES, **BUT NOT ALL** OF THE STRUCTURES in the SFHA, the community may use Option 3. Using this option the impact adjustment ratios for FTR, EWD, and ORE are computed by dividing the number of <u>b</u>uildings affected by each element by the total number of buildings in the <u>SF</u>HA (bSF).

rFTR=<u>bFTR</u> = rFTR=\_\_\_\_\_= bSF

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=

c620 =

Community : \_\_\_\_\_

## 620 LEVEE SAFETY

#### 622 Impact Adjustment:

- a. Option 1: rLP = 1.0
- b. Option 2: rLP = 0.01
- c. Option 3: rLP = <u>bLP</u> = \_\_\_\_\_ bSF\_\_\_\_\_

#### 623 Credit Calculation:

9 x LPL x rLP

c620 = value above rounded to the nearest whole number:

Enter this value on AW-720-1.

#### 624 Credit Documentation:

- a. Levee protection level documentation. EITHER:
- \_\_\_\_ A statement signed by the U.S. Army Corps of Engineers that states the levee protection level and the date of construction, OR
- A certification by a licensed professional engineer that states that the levee meets all the NFIP levee recognition requirements except for height, provides the date of construction, the levee protection level, and shows that all mechanized interior drainage systems have been tested.
- b. The levee emergency response plan that specifies actions to take at various flood stages.
- \_\_\_\_ c. The map showing the area protected by the levee, designated as "LP."
- \_\_\_\_\_d. The Impact Adjustment Map (if Option 2 or 3 is used). and
- \_\_\_\_ Documentation showing how bLP and bSF were determined.

#### The following will be needed at the annual recertification:

- e. A certification by a licensed professional engineer that the levee has been maintained in such a manner that it meets all the NFIP levee maintenance requirements.
- f. Documentation of the monthly communications checks between local emergency officials and the agency responsible for the levee and a description of the exercise or drill of the levee emergency plan or the response to an actual emergency or disaster conducted during the previous year.
- \_\_\_\_ g. A copy of the materials that notify occupants of the area protected by the credited levee.

#### Comments:

Activity Worksheet 086-0-23A

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## 630 DAM SAFETY

#### 632 Impact Adjustment:

- a. Option 1: rDFP = 1.0
- b. Option 2: rDFP = 0.25
- c. Option 3: rDFP = <u>bDFP</u> = \_\_\_\_\_ bSF \_\_\_\_\_

#### 633 Credit Calculation:

a.	SDS	SDS =
b.	cDFP = (DFP1 + DFP2 + DFP3) x rDFP	=
C.	Add SDS and DFP =	
	c630 = value above rounded to the nearest whole number:	c630 =
	Enter this value on AW-720-1.	

#### 634 Credit Documentation:

There is no documentation required for state dam safety program (SDS) credit.

- a. Dam failure plan (DFP): Pages from the adopted emergency response plan, marked "DFP1," that
- (a)(1) Specify that the community will be notified in the event of an impending or actual failure of a dam upstream from the community;
- (a)(2) Provide projected inundation areas, flood elevations, and estimated arrival times for flood peaks arising from a failure of the dam; and
- (a)(3) Call for an exercise at least annually. The results of the exercise are evaluated and used to revise the response plan.
- (b) A procedure to obtain annual reports by the dam operators on the safety and operational status of their dams. Copies of these reports must be sent to the community and the state dam safety office; and
- (c) Documentation of monthly communications checks between dam operators and emergency services officials.
- b. DFP warning credit (Mark the documentation for this section "DFP2"): An emergency response plan that details at least three methods of notifying affected residents of an imminent flood resulting from a possible or ongoing dam failure. At least three of the following notification methods must be available:
  - \_\_\_\_ Sound or voice siren system.
- \_\_\_\_ Telephonic notification, AM transmitters and receivers dedicated to dam failure notification.
- \_\_\_\_ NOAA Weather Radio. Receivers with Specific Area Message Encoding (SAME) are preferred.
- \_\_\_\_ Mobile public address.

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- \_\_\_\_ Emergency Alert System.
- \_\_\_\_ Cable television override.
- \_\_\_\_ Door-to-door notification.
- c. DFP evacuation planning credit (Mark the documentation for this section "DFP3"):
- 1. Documentation that the adopted emergency plan that includes evacuation routes and detailed procedures for notifying and evacuating critical facilities, specifically including schools, hospitals, nursing homes, jails, and other locations where there are populations that may have difficulty evacuating the dam failure inundation area; and
- 2. Documentation of at least annual notification of occupants in the dam failure area of the hazard, the area affected, evacuation routes, and flood safety topics appropriate to the hazard.
- d. The Impact Adjustment Map (if Option 1 or 3 is used), and
- \_\_\_\_ Documentation showing how bLP and bSF were determined.

#### The following will be needed at the annual recertification:

e. Documentation of the monthly communications checks between local emergency officials and the agency responsible for the dam and a description of the exercise or drill of the dam failure emergency plan or the response to an actual emergency or disaster conducted during the previous year.

To facilitate verification of DFP, provide the names of the CRS Coordinator and flood warning contact or emergency manager if other than the CRS Coordinator:

	CRS Coordinator:	Flood Warning Contact or Emergency Management Coordinator:
Name:		
Title:		
Phone:	Fax:	Fax:
Address:		
Email:		
Comments:		

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# 710 COMMUNITY GROWTH ADJUSTMENT

#### 712 Growth Adjustment Calculation:

a. Average Growth Rate:

AGR1 = USGR = \_\_\_\_\_

 $AGR2 = \frac{USGR}{2} + CMGR = \_$ 

AGR = the larger of the two (AGR1 or AGR2) If AGR is less than 0.0, then AGR = 0.0

If AGR is greater than 5.0, then AGR = 5.0

b. Community Growth Adjustment:

CGA = 1 + (0.1 x AGR \_\_\_\_\_):

Enter this value on AW-720-1.

#### 713 Credit Documentation:

\_\_\_\_ If CMGR is used, documentation that the community growth rate (CMGR) data have been accepted by a state or federal agency for reporting requirements.

Comments:

AGR = \_\_\_\_\_

CGA = \_\_\_\_\_

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Credit

Community : \_\_\_\_\_

## 720 COMMUNITY CREDIT CALCULATIONS

#### **Calculation Section:**

Verified Activity Calculations:

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
c410 x CGA = c420 x CGA = c430 x CGA = c440 x CGA = c450 x CGA =	
c510 = c520 = c530 = c540 =	
c610 = c620 = c630 =	

### 722 Community Classification Calculation:

cT = total of above	cT =
Community Classification (from Appendix C):	Class =

CEO Name / Address	CRS Coordinator Name / Address
Date Report Prepared:	

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# 720m COMMUNITY CREDIT CALCULATIONS (MODIFICATION): Calculation Section:

c330	c320	c310			
c320 c330	c320		=		
c330			-		
	c330				
c340	c340				
c350			-		
	c360		=		
c410	c410	c410	x CGA	=	
c420		c420	x CGA	=	
c430	c430	c430	x CGA	=	
c440	c440	c440	x CGA	=	
c450	c450	c450	x CGA	=	
c510	c510	c510	=		
c520					
c530					
	c540				
c610	c610	c610	=		
c620	c620	c620	=		
c630	c630	c630	. =		
<b>722 Community C</b> cT = total of above	e:		:		cT =
Community Class	ification (from /	Appendix C):			Class =
CEO Nam	ne / Address		CF	RS Coordinator N	lame / Address
Date Report Prepared	4.				

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