CRS Activity 630 (Dams) 10/7/2020

Community Rating System

As a part of the National Flood Insurance Program (NFIP), the **Community Rating System** is a **voluntary incentive program** that recognizes and encourages community floodplain management activities that **exceed the minimum NFIP requirements**.

As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the Community Rating System

CRS 600 Series: Warning and Response

The 600 series of activities within the National Flood Insurance Program's (NFIP) Community Rating System (CRS) is focused on linkages between a community's emergency management mission/program and its voluntary CRS activities. These credited activities focus on the life safety aspect of a community's floodplain management program, particularly its **emergency management flood warning programs** and can result in additional CRS discounts for your citizens

CRS Activity 630- Dams

Table 110-2. Credit points awarded for CRS activities.*				
Activity	Maximum Possible Points	Maximum Points Earned	Average Points Earned	Percentage of Communities Credited
300 Public Information Activities				
310 Elevation Certificates	116	116	38	96%
320 Map Information Service	90	90	73	85%
330 Outreach Projects	350	350	87	93%
340 Hazard Disclosure	80	62	14	84%
350 Flood Protection Information	125	125	38	87%
360 Flood Protection Assistance	110	100	55	41%
370 Flood Insurance Promotion [5]	110	110	39	4%
400 Mapping and Regulations				
410 Flood Hazard Mapping	802	576	60	55%
420 Open Space Preservation	2,020	1,603	509	89%
430 Higher Regulatory Standards	2,042	1,335	270	100%
440 Flood Data Maintenance	222	249	115	95%
450 Stormwater Management	755	605	132	87%
500 Flood Damage Reduction Activities				
510 Floodplain Mgmt. Planning	622	514	175	64%
520 Acquisition and Relocation	2,250	1,999	195	28%
530 Flood Protection	1,600	541	73	13%
540 Drainage System Maintenance	570	454	218	43%
600 Warning and Response				
610 Flood Warning and Response	395	365	254	20%
620 Levees	235	207	157	0.5%
630 Dams	160	99	35	35%

* Figures are based on communities that have received verified credit under the 2013 *CRS Coordinator's Manual* (about 43% of CRS communities), as of October 2016. The maximum possible points are based on the 2013 *Coordinator's Manual*. Growth adjustments are not included.

REQUIREMENTS

- Advance notification of an impending flood (threat recognition)
- Warnings issued to the threatened population (warning)
- Steps taken to protect life and reduce losses (operations)
- Coordination with critical facilities (critical facilities planning)

PARTICIPATING ORGANIZATIONS

- USACE (Dam Owner)
- FEMA (CRS Program Coordinator)
- ISO / CRS Specialist
- State Dam Safety Office
- State NFIP / SHMO
- WV GIS Technical Center
- Emergency Management Office
- Floodplain Manager / Risk Planner

State-Based CRS Points

BASIC SCENARIO FOR ALL COMMUNITIES

CRS Series	CRS Activity	CRS Element	CRS Credit
Public Information Activities	310	Elevation Certificates	38
Public Information Activities	320	Map Information Services	90
Mapping and Regulations	430	Freeboard 2 Ft. (Higher Regulatory Standards)	225
Mapping and Regulations	440	Additional Map Data (Flood Data Maintenance)	154
Flood Damage Reduction Activities	510	Floodplain Management Planning (Hazard Mitigation Plan)	100
		Basic Scenario Points for West Virginia	*607*

POTENTIAL ADDITIONAL CRS POINTS

CRS Series	CRS Activity	CRS Element	CRS Credit Points
Public Information Activities	350	Flood Protection Information on Website	77
Mapping and Regulations	410	Advisory BFE (New Study)	130
Mapping and Regulations	420	Open Space Preservation	1,950
Flood Damage Reduction Activities	520	Acquisition & Relocation of Buildings	2,250
Warning and Response	**630**	**High Hazard Dams**	**160**
		Potential Maximum Points	*4,567*

CRS Program Data and Impact Adjustments	
Program Data and Impact Adjustments	Section
Buildings in the SFHA (bSF)	213a, 222
Acreage of the SFHA (aSFHA)	213a, 222

CRS Activity 630 - Dams

631.a. Activity Description

The maximum credit for Activity 630 is 160 points.

This activity provides credit to communities that would be affected by the failure of an upstream high-hazard-potential dam. State definitions of a high-hazard-potential dam vary, and may include potential damage to buildings or property. However, all state definitions of high-hazard-potential dams include or refer to probably loss of life if there is a failure of the dam.

High-hazard-potential Dams

"Dams assigned the high hazard potential classification are those where failure or mis-operation will probably cause loss of human life."

—*Federal Guidelines for Dam Safety: Hazard Potential Classification System for Dams*, 2004, by the Interagency Committee on Dam Safety

Credit is provided under five elements:

- The state's dam safety program that sets construction, maintenance, and data provision standards for dams (credited under SDS),
- A system to advise local emergency managers of a potential dam failure (credited under DFR),
- A warning system for the areas downstream of the dam (credited under DFW),
- A plan of action to minimize the threat to life and property during the flood (credited under DFO), and
- Coordination with critical facility operators (credited under DCF).

Source: 2017 CRS Coordinator's Manual (Page 630-1)

https://www.fema.gov/media-library-data/1493905477815-d794671adeed5beab6a6304d8ba0b207/633300_2017_CRS_Coordinators_Manual_508.pdf

CRS Activity 630- Dams

Dams

(2) The community must submit a description of the dam failure threat, including the following for each high-hazard-potential dam that affects the community. The first three items should be available from the state's dam safety office. If they are not available from the state or the owner of the dam, the community may have to develop the information and document it.

(a) A general description of the dam, including its distance upstream from the community;

(b) A dam failure inundation or evacuation map;

(c) Dam failure flood hazard data, including the arrival time of flood waters at different locations and peak elevations of the dam failure flood;

(d) An inventory of the types of buildings (residential, commercial, etc.) exposed to dam failure flooding with an approximate count of the number of buildings and an inventory of the land use (residential, agricultural, open space, etc.) of developed and undeveloped areas within the dam failure inundation or evacuation area for each high-hazard-potential dam;

(e) A list of the critical facilities that would be flooded or otherwise affected by a failure of the dam; and

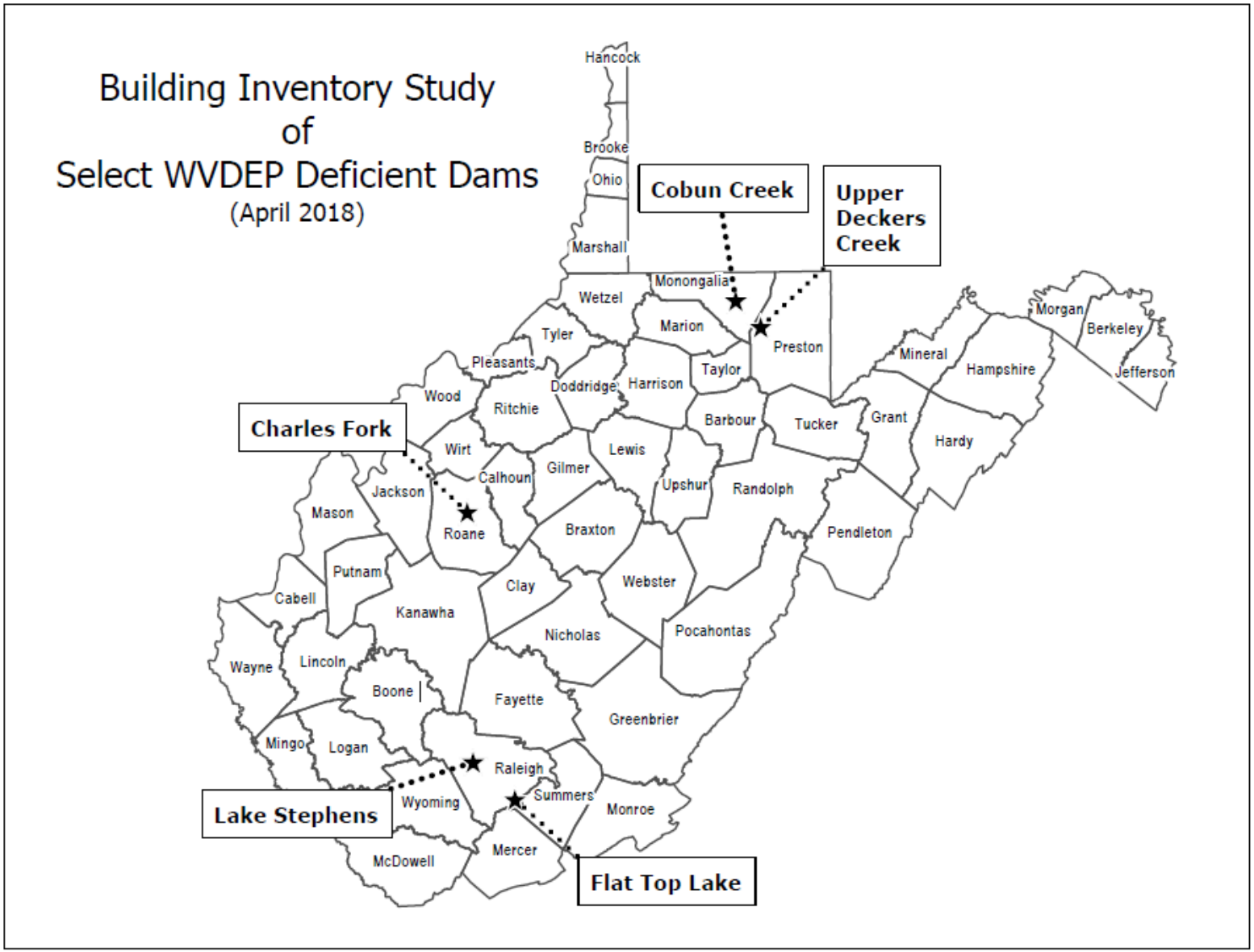
(f) The expected impacts of dam failure flooding on health and safety; community functions, such as police and utility services; and the potential for secondary hazards.

Local governments may have completed a risk assessment that meets this criterion as part of their floodplain management or hazard mitigation plan credited under Activity 510. If not, the community can complete the CRS Community Self Assessment described in Section 240 of the *CRS Coordinator's Manual*. The products from either of these efforts should provide the basis for the dam failure flood hazard description.

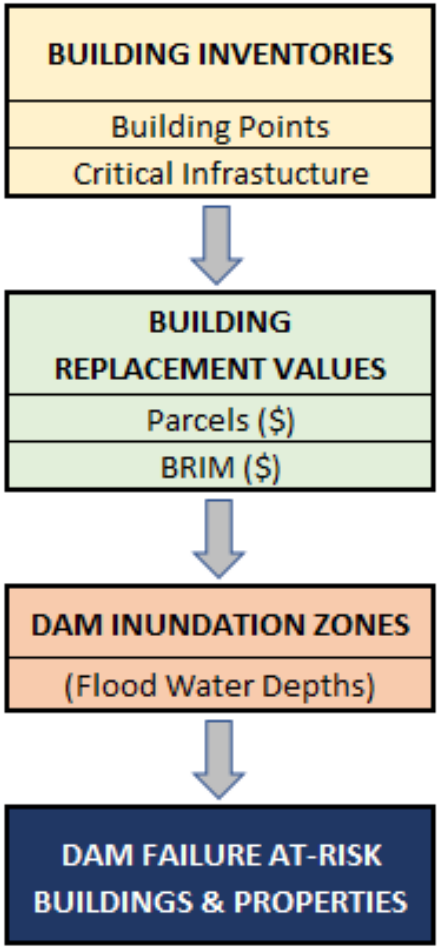
This credit criterion is a prerequisite for Class 4 communities.

Source: 2017 CRS Coordinator's Manual (Page 630-4)

Building Inventories – Deficient Dams



Building Inventories – Deficient Dams



Category	Charles Fork #17 Dam	Cobun Creek Dam	Flat Top Lake Dam	Lake Stephens Dam	Upper Deckers #1 Dam
Hazard Potential Classification	**High Risk**	**Significant Risk**	**High Risk**	**High Risk**	**Significant Risk**
WV DEP Deficient Dams / Rank	T1 / 5		T1 / 14	T1 / 7	
Flood Inundation Area (sq. mi.)	3.06	0.04	3.38	4.91	1.55
Flood Inundation Area (acres)	1955	23	2164	3141	995
River or Stream	Charles Fork	Cobun Creek	Beaverpond Branch	Stephens Branch	Decker's Creek
Watershed	Little Kanawha	Upper Monongahela	Lower New	Coal	Upper Monongahela
County	Roane	Monongalia	Raleigh	Raleigh	Preston
Community and distance (mi)	Spencer (2 miles)	Morgantown (1 mile)	Cool Ridge (1 mile)	Surveyor (1 mile)	Arthurdale (1 mile)
Owner	City of Spencer	Morgantown Utility Board	Flat Top Lake Assoc.	Raleigh County Rec. Authority	Monongahela SCD
# Structures	**983**	**7**	**252**	**1,071**	**188**
Building Type - % Residential	58%	29%	85%	80%	75%
Building Type - % Farm	16%	0%	9%	5%	12%
Building Type - % Commercial / Industrial	13%	57%	1%	12%	9%
Building Type - % Other	13%	14%	5%	3%	4%
At-Risk Building Exposure Value ($)	**$33,821,000**	**$83,900**	**$11,244,500**	**$27,286,500**	**$7,465,600**
# Critical Facilities	**7**	**0**	**1**	**5**	**0**
Critical Facilities Exposure Value ($)	**$2,025,500**		**$203,300**	**$1,175,800**	
# Parcels Intersecting Inundation Zone	**1,253**	**25**	**478**	**2,063**	**277**
Land Use Type - % Vacant / Open Space	24%	68%	23%	44%	28%
Land Use Type - % Residential	40%	0%	45%	34%	50%
Land Use Type - % Agriculture	14%	0%	20%	8%	10%
Land Use Type - % Commercial / Industrial	9%	28%	5%	2%	8%
Land Use Type - % Other	13%	4%	7%	11%	5%

Building Inventories – Deficient Dams