**Activity 630 (Dams) Documentation Checklist**

**State Dam Safety Credit Criteria and Documentation**

**[If not previously requested]**

(1) The SDS credit earned by the state dam safety office is provided to all communities that would be affected by a flood from the failure of a high-hazard-potential dam.

* A map and description of the threat from failure of high-hazard-potential dams.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

(2) The community must meet state dam safety standards to receive credit for this element. If the community owns or regulates the construction, operation, or maintenance of any dams, the community’s dams and/or its dam safety program must meet the state standards for dam safety.

(3) If the state’s SDS credit changes, the community’s credit for SDS will be updated at the next verification visit or modification.

**Dam Failure Recognition (DFR), Dam Failure Warning (DFW), Dam Failure Operations (DFO) and Dam Failure Critical Facilities (DCF) Credit Criteria and Documentation**

These activity credit criteria apply to all Activity 630 elements except SDS. Credit criteria for this activity are described in more detail in Section 631.b of the *CRS Coordinator’s Manual*.

(1) There must be at least one insurable building within the community subject to inundation due to the failure of a high-hazard potential dam.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

(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 not, the community may have to develop the information and document it.)

* A general description of the dam, including its distance upstream from the community.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

* A dam failure inundation map or evacuation map.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

* Dam failure flood hazard data, including the arrival time of flood waters at different locations and peak elevations of the dam failure flood.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

* The development exposed to dam failure flooding, such as the number and types of buildings; land use (residential, agricultural, open space, etc.); and critical facilities.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

* 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. (Possibly credited under Activity 510 or a CRS Community Self-Assessment.)

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

(3) The community must obtain some credit in all four dam failure warning and response elements (DFR, DFW, DFO, and DCF) in order to receive any credit for its local dam failure warning and response plan.

(4) To receive DFR, DFW, DFO, and DCF credit, the community must have a dam failure warning and response plan that has been adopted by the community’s governing body.

The plan or related document must be marked to show where the credited items appear and must: *[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

* Describe the dam failure threat recognition procedures (DFR),  *[pages \_\_\_\_\_\_\_\_\_\_\_.]*
* Describe the dam failure emergency warning procedures (DFW), *[pages \_\_\_\_\_\_\_\_\_\_\_.]*
* Describe the dam failure operations and actions (DFO). For full credit for DFO, the plan needs to
* (a) Describe the actions to be taken, *[pages \_\_\_\_\_\_\_\_\_\_.]*
* (b) Identify the office or official responsible for the action, *[pages \_\_\_\_\_\_\_\_\_\_.]*
* (c) Define the time needed to carry out the activity, and *[pages \_\_\_\_\_\_\_\_\_\_.]*
* (d) Contain other critical information that specified agencies and organizations need in order to perform their assigned responsibilities. *[pages \_\_\_\_\_\_\_\_\_\_\_.]*

(5) To receive DFR, DFW, DFO, and DCF credit, the community must implement one or more outreach projects to the residents and businesses in the area(s) expected to be inundated by a dam failure. [Select] one or more of the following approaches.

\_\_\_\_ Sending an outreach project each year to all residents and businesses in the community.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

\_\_\_\_ Sending an outreach project each year to all residents and businesses in the area(s) subject to dam failure flooding.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

\_\_\_\_ Developing an appropriate approach as part of a Program for Public Information credited under Activity 330.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

(6) To receive DFR, DFW, DFO, and DCF credit, there must be at least one exercise or drill of the dam failure warning and response plan each year. This can be an exercise for a flood, levee failure, dam failure, or hurricane. (Criterion can be met if implemented by an actual flood or threat of failure.) There must be an evaluation of the performance of the plan and recommended changes, usually done in an after-action report.

* Documentation or description of the annual exercise, drill, or response to an actual emergency conducted the previous year. Dam failure threat recognition procedures must have been included (DFR). The exercise must include the procedures for warning people credited under DFW, and operations and action under DFO.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

**Dam Failure Threat Recognition System (DFR) Credit Criteria and Additional Documentation:**

(2) For DFR1 and DFR2:

(a) The threat recognition procedures must be in the dam failure warning and response plan or a related document.

(b) The threat recognition system must be monitored by the operator and/or the local emergency manager (or office on behalf of the emergency manager) 24 hours a day, seven days a week.

(c) The equipment used must be tested at least quarterly. Equipment that is used routinely throughout the year, such as a telephone, does not need testing records for CRS credit.

* Copy of records of the quarterly test of all equipment and materials needed for the system.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

(3) DFR1 credit is a prerequisite for DFR2 credit.

(4) For DFR1 credit, the primary dam failure threat recognition procedures must include

(a) Procedures and predetermined conditions for when the operator of the dam notifies local emergency managers of a potential or actual dam breach; and

(b) At least quarterly communication checks between the operator of the dam and emergency services officials.

(5) For DFR2 credit, the secondary dam failure threat recognition backup system must be directly available to the emergency manager.

[DFR Documentation:]

* Copy or link to the impact adjustment map showing the area(s) affected by each element and documentation showing how the numbers of buildings used in the calculations were determined.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

* A list of the maximum number of buildings that would be flooded or evacuated by/due to a dam failure(s).

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

**Dam Failure Warning (DFW) Credit Criteria and Additional Documentation:**

(2) The warning procedures must be included in the dam failure warning and response plan or a related document.

(3) The warning must reach people in a timely manner, especially because there may not be much time between a sudden dam failure and the point at which the water reaches homes and businesses. For example, television or radio announcements are not credited if they are the only approach used because the failure may occur during the night. The messages should be drafted in coordination with the messages and projects credited under flood response preparations (FRP) in Activity 330 (Outreach Projects).

(4) For those warning systems requiring specialized equipment, the equipment and procedures must be tested at least annually. Equipment that is used routinely throughout the year, such as television notices and message boards, do not need testing records for CRS credit.

* Copies of records showing the most recent annual test of all equipment and material needed for the system.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

**Dam Failure Operations (DFO) Credit Criteria and Additional Documentation:**

(2) The dam failure operations actions must be included in the dam failure warning and response plan or a related document.

(3) Credit is based on the extent and level of detail the dam failure warning and response plan provides for the response operations. General statements or an assignment of responsibilities with no specifics about what is to be done are not credited. For full credit for DFO, the plan needs to

(a) Describe the actions to be taken,

(b) Identify the office or official responsible for the action,

(c) Define the time needed to carry out the activity, and

(d) Contain other critical information that specified agencies and organizations need in order to perform their assigned responsibilities.

(4) DFO4 credit is provided if there is a list of the personnel, equipment, facilities, supplies, and other resources needed to complete each task. For full credit, the list must identify what is available within the community and what is needed from private suppliers or other jurisdictions.

**Dam failure Critical Facilities planning (DCF) Credit Criteria and Additional Documentation:**

(2) DCF1 is a prerequisite for any DCF credit.

(3) For DCF1 credit, the community’s dam failure response plan must list the facilities considered critical in a dam failure emergency. The community must contact the facilities to determine if they need special warning arrangements. The community does not need to provide a special warning to all critical facilities, only those that need one. There is no impact adjustment for DCF1. The community must include all critical facilities affected by a dam failure on its list.

* A list of the critical facilities that would be flooded or evacuated by/due to a dam failure(s).

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

(4) For DCF2 credit, dam failure warning and response plans must have been developed, reviewed, or accepted by the community for individual critical facilities.

(a) A list of all public and private critical facilities affected by dam failure or needed to be operational during a dam failure flood, with the contact and warning needs information.

* Provide a list of all public and private critical facilities affected by dam failure or needed to be operational during a dam failure flood, with the contact and warning needs information.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

(b) [For DCF2] The above ((1)(a)) list of critical facilities marked to identify those that have developed their own flood warning and response plans that have been reviewed and accepted by the community. The ISO/CRS Specialist will ask for samples of the plans for review.

* Provide a list (and samples) of the critical facilities with dam failure warning and response plans that have been developed, reviewed, or accepted by the community.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

* Provide a page from the latest list of the critical facilities affected by dam failure or needed to be operational during a dam failure flood. This list must be updated at least annually.

*[See Attachment \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ pages \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.]*

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