

Subpart F - Emergency Action Plan

500.50 Overview

A. An Emergency Action Plan (EAP) outlines procedures to minimize risks to life and property when the integrity of a dam or similar structure may be in jeopardy. The EAP shall consider all potential emergency situations, both natural and manmade, and shall identify appropriate responses. Typical situations include:

- (1) Occurrence or prediction of extreme rainfall or snowmelt;
- (2) Occurrence of earthquakes;
- (3) Structural malfunction such as gate failure;
- (4) Hydraulic malfunction such as pipe blockage;
- (5) Malicious human activity such as sabotage, vandalism, or terrorism; and
- (6) Excessive seepage or embankment sloughing.

B. For new or rehabilitated high hazard dams (and other structures as required by State and local regulations) designed with NRCS assistance an EAP shall be prepared prior to construction. Dam owners of existing high hazard dams that were originally designed and constructed with NRCS assistance shall be encouraged to prepare EAPs for their dams. See the National Engineering Manual and applicable State and local regulations for additional guidance on developing an EAP.

500.51 Responsibility

A. The sponsor/land user shall:

- (1) Prepare and implement the EAP;
- (2) Coordinate with the police, fire department, emergency management agency, and the State dam safety agency during all phases of the EAP preparation and implementation;
- (3) Review and revise the EAP annually and exercise the EAP at least once every 5 years; and
- (4) Assure training is provided for all persons with specific responsibilities so they can execute their duties in a timely manner.

B. NRCS shall provide or review the following for all new or rehabilitated dams designed or constructed with NRCS assistance. For existing high hazard dams, the following assistance may be provided if the State Conservationist determines resources are available:

- (1) Provide technical data;
- (2) Prepare or review breach inundation maps;

- (3) Assist in the preparation or review of the EAP, if requested by the sponsor/land user;
- (4) Determine that an adequate EAP is prepared prior to the execution of fund obligating documents for construction of the structure;
- (5) Participate in the annual review of EAPs and the testing of EAPs at least once every 5 years; and
- (6) Encourage owners of existing high hazard dams to develop EAPs.

500.52 EAP Content and Format

A. The EAP shall identify site-specific conditions that require action, specify the actions to be taken, and designate responsibility for the specified actions. Small dams may have brief EAPs. Large or complex dams may require more elaborate plans, including instrumentation, automatic warning devices, and coordination with several agencies or groups. The site-specific EAPs become a part of a larger set of a community's emergency management preparedness response plans to address a variety of other hazards. The activation of an EAP also utilizes the National Incident Management System (NIMS).

B. See Subpart G, Exhibits, Section 500.66 for a [Sample EAP](#). Click here for a [fillable form template and instructions](#) for developing a site-specific EAP.

C. All EAPs for NRCS-assisted dams shall contain the minimum content as follows. The format may be adjusted for consistency as required by State and local procedures.

(1) Title Page/Cover Sheet

The document cover shall identify it as an EAP and specify the dam for which it is developed.

(2) Table of Contents

The Table of Contents shall list all major items including flowcharts, maps, and tables.

(3) Statement of Purpose

The purpose and scope of the EAP shall be stated concisely.

(4) Project Description

A description of the project and its location shall include the following:

- (i) A project or vicinity map;
- (ii) Any significant upstream or downstream dams; and
- (iii) Downstream at-risk people or properties that could be potentially affected by a dam failure or by flooding as a result of spillway operational releases.

(5) Responsibilities

A description of the roles and responsibilities of all parties involved with the activation of the EAP shall be included. See the sample EAP for common roles and responsibilities of parties involved with the activation of EAPs.

(6) Event Detection and Determination of Emergency Level

The EAP shall indicate procedures for timely and reliable detection and evaluation of an existing or potential emergency condition.

D. The emergency level determination classifies emergencies according to their severity and urgency. This section shall include site-specific guidance to help determine the appropriate emergency level for common emergency events. The following emergency level classifications shall be used for NRCS-assisted dams unless other systems convey the same urgency and help maintain consistency within a State. See the sample EAP for an example of the use of this system and common expected actions for each emergency level:

(1) **Emergency Level 1**—Nonemergency, unusual event, slowly developing: This situation is not normal, but has not yet threatened the operation or structural integrity of the dam but could if it continues to develop.

(2) **Emergency Level 2**—Potential dam failure situation, rapidly developing: This situation may eventually lead to dam failure and flash flooding downstream.

(3) **Emergency Level 3**—Urgent, dam failure appears imminent or is in progress: This is an extremely urgent situation when a dam failure is occurring or is just about to occur.

(4) **Notification Flowcharts**

A notification flowchart shall be prepared for each emergency level described above and shall identify who is to be notified, by whom, and in what order.

(5) **Expected Actions**

Preparedness actions shall be identified to respond to an emergency and to help reduce the effects of dam failure. Preparedness actions that may be taken include notification of emergency personnel; monitoring of current conditions; making arrangements for equipment, labor, and materials for use in emergency situations; and actions to take to minimize dam failure, if time permits.

(6) **Evacuation Map**

An evacuation map shall be included to delineate areas that would be flooded as a result of a dam failure or auxiliary spillway flows that may flood roads, homes, or businesses. Inundation maps shall be developed according to policy contained in the National Engineering Manual. The assumptions used in the analysis and development of the map shall be described.

(7) **People/Businesses at Risk**

If only a few homes or businesses are located within the breach inundation area, the name, address, and contact information of each shall be listed. If many homes or businesses are within the breach inundation area, they may be described in a narrative and shown clearly on the evacuation map.

(8) **Reviews**

A requirement shall be included that the EAP be reviewed and updated annually.

(9) **Training and Exercising**

Provisions shall be included that require all persons involved in the EAP to be trained to ensure they are thoroughly familiar with the elements of the plan, availability of equipment, and their responsibilities and duties under the plan. The EAP should be exercised at least once every 5 years.

(10) **Appendices**

An appendix section shall be included that contains site-specific information that supports and

supplements the EAP. Additional information may be included as required by State and local emergency management agencies.

(11) **Concurrence of the EAP**

This section shall include signatures by all parties involved in the plan where they indicate their concurrence of the EAP and their responsibilities for its execution. After review of the EAP by the State conservation engineer, the district conservationist shall sign the EAP for concurrence of NRCS.

500.53 Distribution

All individuals or groups who are signatory parties to the EAP shall receive copies of the EAP. Copies shall be provided to the State dam safety officer and other Federal, State, local, and tribal authorities with responsibilities identified in the EAP. Each copy shall be identified with a control number so the landowner/sponsor can record the individuals and organizations that have official copies so they can be updated on a regular basis. Large-scale maps needed for evacuation purposes for some projects shall be provided to the authorities responsible for evacuation operations. To minimize the potential for improper use of information contained in the plan, the EAP should not be distributed beyond the preparers and emergency service personnel.

500.54 Reviews

The EAP shall be reviewed and updated annually by the sponsor/land user to assure that names and contact information are current for all Federal, State, local, and tribal authorities with responsibilities identified in the EAP.

500.55 Training and Exercising

A. The sponsor/land user shall be responsible for assuring all persons involved in the EAP are trained to ensure that they are thoroughly familiar with the elements of the plan, availability of equipment, and their responsibilities and duties under the plan. The level of detail involved in training is dependent on the size and complexity of the project. Personnel shall be trained in event detection and evaluation, determination of emergency levels, and possible remedial measures. This training is essential for proper evaluation of developing situations at all levels of responsibility, since most situations will be based on onsite observations. NRCS may assist with the training, if the sponsor/land user requests it.

B. A tabletop exercise should be conducted at least once every 5 years. The tabletop exercise involves a meeting of the dam owner and State, local, and tribal emergency management officials in a conference room environment. The exercise begins with a description of a simulated event and proceeds with discussions by the participants to evaluate the EAP and response procedures and to resolve concerns regarding coordination and responsibilities.

500.56 Reporting of Emergency Situations

A. When a situation develops that involves the activation of the EAP, the district conservationist shall immediately notify the State conservation engineer of the developing situation and actions being taken. The State conservation engineer shall notify the State conservationist and the director of engineering in accordance with the National Engineering Manual.

B. The district conservationist shall assure the landowner/sponsor completes the Dam Emergency Situation Report and submits a copy to the State conservation engineer following termination of the emergency.