



# Surveillance, Emergency Notification, and Action Plan for South Carolina Regulated Dams Dams and Reservoirs Safety Act Regulations 72-1 through 72-9

SC Inventory Number D \_\_\_\_\_

**Note: This form is for use on dams regulated by the Department of Health and Environmental Control in the State of South Carolina. The purpose of this form is to provide a plan that will help to minimize loss of life and property damage from dam failures. To accomplish its purpose: potential emergency conditions are identified; preplanned actions that can be implemented during events are specified; and emergency notification procedures to aid in warnings and evacuations are documented. The dam owner should perform inundation mapping as appropriate to determine the downstream hazards and provide the maps as an addendum to this plan.**

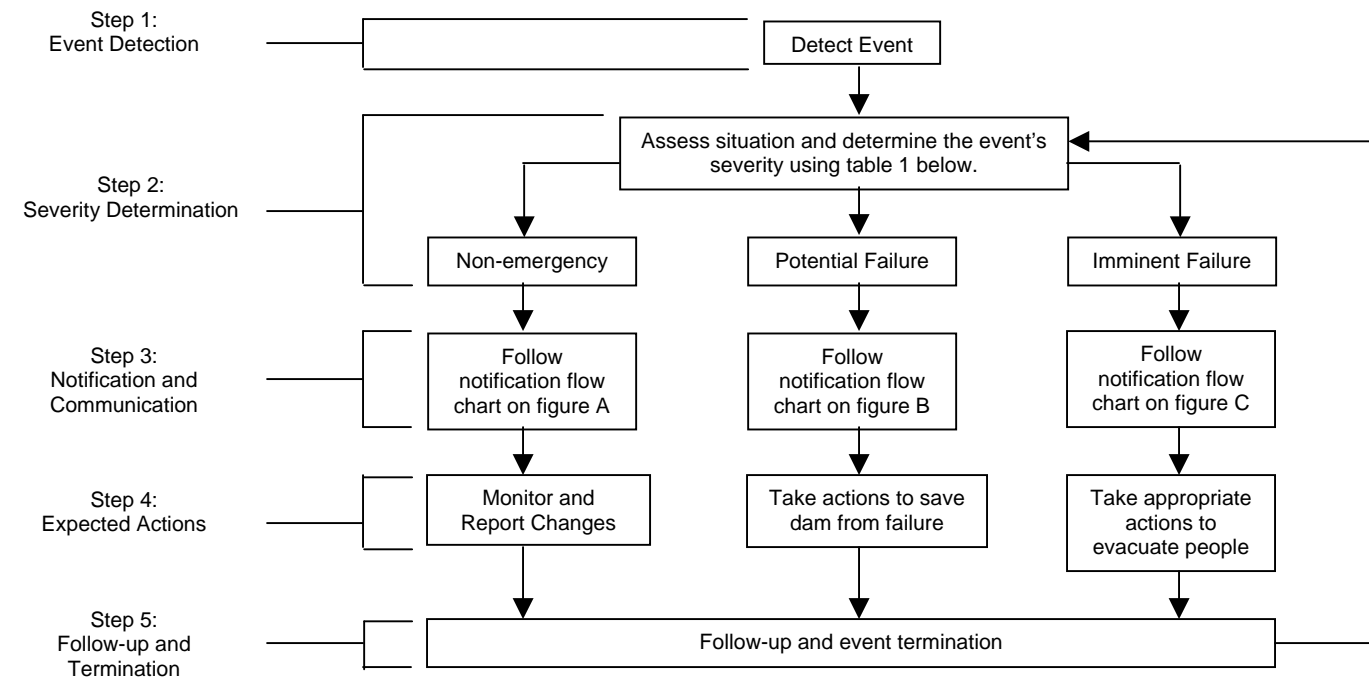
**Dam Owner Roles and Responsibilities**

The dam owner is responsible for: safe maintenance and operation of the dam and reservoir; implementing the Surveillance and Emergency Notification and Action Plan; and frequent visual inspections to detect changes that may endanger the dam. The dam owner will ensure that any evidence of seepage is monitored to detect any increasing flow or movement of soil particles. The owner must ensure that monitoring of the dam is performed in the event that a hurricane or flooding is forecast. The owner of the dam has the responsibility to take the appropriate actions to save the dam and make appropriate notifications.

As soon as an event is observed or reported the dam owner must immediately determine the severity of the situation. Table 1 provided on page 2 may be used to assist with the severity determination. Once the situation is classified as either Non-emergency, Potential failure, or Imminent failure the dam owner is responsible for making the notifications prescribed on the appropriate notification flow chat below (See figures A, B, & C). Simultaneously, the owner of the dam must ensure that appropriate actions are made to ensure the safety and welfare of the public. As the event unfolds, the dam owner shall provide updates of the situation to Emergency Management Services or the Police Dispatcher to assist them in making timely and accurate decisions regarding warning, evacuations, and event termination. See the "Five Step Plan Overview" below for additional clarification.

The Dam owner must provide leadership to assure this plan is reviewed and updated as needed and copies of the plan are distributed as necessary. At a minimum, copies of this plan should be distributed to all individuals responsible for its implementation and those listed in the notification flow charts. It is the dam owner's responsibility to coordinate with the appropriate emergency management agency to determine the suitability of this plan.

**Five Step Plan Overview**



**I. Signatures and Certifications: DO NOT SIGN IN BLACK INK!**

Per my signature below, I hereby agree to the roles and responsibilities assigned to me by this plan. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

\_\_\_\_\_  
Printed Name of Dam Owner

\_\_\_\_\_  
Signature of Dam Owner

\_\_\_\_\_  
Date of Signature

**Table 1: Determination Guide for Situational Severity**

Event	Situation	Severity level*
Earth spillway flow	Reservoir water surface elevation at auxiliary spillway crest or spillway is flowing with no active erosion	Non-emergency
	Spillway flowing with active gully erosion	Potential Failure
	Spillway flow that could result in flooding of people downstream if the reservoir level continues to rise	Potential Failure
	Spillway flowing with an advancing headcut that is threatening the control section	Imminent Failure
	Spillway flow that is flooding people downstream	Imminent Failure
Embankment overtopping	Reservoir level is 1 foot below the top of the dam	Potential Failure
	Water from the reservoir is flowing over the top of the dam	Imminent Failure
Seepage	New seepage areas in or near the dam	Non-emergency
	New seepage areas with cloudy discharge or increasing flow rate	Potential Failure
	Seepage with discharge greater than 10 gallons per minute	Imminent Failure
Sinkholes	Observation of new sinkhole in reservoir area or on embankment	Potential Failure
	Rapidly enlarging sinkhole	Imminent Failure
Embankment cracking	New cracks in the embankment greater than ¼-inch wide without seepage	Non-emergency
	Cracks in the embankment with seepage	Potential Failure
Embankment movement	Visual movement/slippage of the embankment slope	Non-emergency
	Sudden or rapidly proceeding slides of the embankment slopes	Imminent Failure
Instruments	Instrumentation readings beyond predetermined values	Non-emergency
Earthquake	Measurable earthquake felt or reported on or within 50 miles of the dam	Non-emergency
	Earthquake resulting in visible damage to the dam or appurtenances	Potential Failure
	Earthquake resulting in uncontrolled release of water from the dam	Imminent Failure
Security threat	Verified bomb threat that, if carried out, could result in damage to the dam	Potential Failure
	Detonated bomb that has resulted in damage to the dam or appurtenances	Imminent Failure
Sabotage/ vandalism	Damage to dam or appurtenance with no impacts to the functioning of the dam	Non-emergency
	Modification to the dam or appurtenances that could adversely impact the functioning of the dam	Non-emergency
	Damage to dam or appurtenances that has resulted in seepage flow	Potential Failure
	Damage to dam or appurtenances that has resulted in uncontrolled water release	Imminent Failure

**II. Communication**

**Non-emergency:**

The dam owner should contact DHEC Regional Office and Dam Safety Program; describe the situation and request technical assistance on next steps to take.

**Potential failure:**

The following message may be used to help describe the emergency situation to the emergency management personnel:

*"This is \_\_\_\_\_ (Identify yourself; name, position) \_\_\_\_\_. We have an emergency condition at dam D SC Inventory No. We have activated the Emergency Notification and Action Plan and are currently having a potential failure event. We are implementing predetermined actions to respond to a situation that could result in dam failure in order to save the dam. Please prepare to evacuate the low-lying area below the dam. Reference the inundation map in your copy of the Plan. We will advise you when the situation is resolved or if the situation gets worse." Note- Additionally, you should provide the dispatcher with your contact information.*

**Imminent failure:**

The emergency responders should be contacted immediately and the area evacuated (see *Inundation Map*). The following actions should be taken:

1. Call the dispatch center. Be sure to say, "This is an emergency." They will call other authorities and the media and begin the evacuation. The following message may be used to help describe the emergency situation to the emergency management personnel:  
(See next page)

*"This is an emergency. This is \_\_\_\_\_ (Identify yourself; name, position) \_\_\_\_\_. We have an emergency condition at dam D SC Inventory No and the dam is failing. The downstream area must be evacuated immediately. Repeat, dam D SC Inventory No, is failing; evacuate the low-lying area below the dam. We have activated the Emergency Notification and Action Plan for this dam and are currently under an Imminent failure situation. I can be contacted at the numbers provided for the dam owner in the plan. Note- Additionally, you should provide the dispatcher with your contact information.*

2. Do whatever is necessary to bring people in immediate danger (anyone on the dam, downstream from the dam, boating on the reservoir, or evacuees) to safety if directed by the emergency management personnel.
3. Keep in frequent contact with the emergency services to keep them up-to-date on the condition of the dam. They will tell you how you can help handle the emergency.
4. If all means of communication are lost: (1) try to find out why, (2) try to get to another radio or telephone that works, or (3) get someone else to try to re-establish communications. If these means fail, handle the immediate problems as well as you can, and periodically try to re-establish contact with the emergency services.

**III. Dam Owner and Site Information**

SC Inventory Number D \_\_\_\_\_ Dam Name: \_\_\_\_\_ County: \_\_\_\_\_

**A. Dam Owner Information**

Owner (Company or person): \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Alternate Phone: \_\_\_\_\_ Cell: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email address: \_\_\_\_\_

**B. Site Information**

Site Location (street address, nearest intersection, etc.): \_\_\_\_\_

Nearest City/ Town: \_\_\_\_\_ Latitude: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " N Longitude: - \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " W

Tax map # (list all): \_\_\_\_\_

**IV. Potentially Inundated Properties (See Inundation Map For Additional Information)**

1) Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

2) Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

3) Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

4) Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

5) Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

6) Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Address: \_\_\_\_\_

7) Name: \_\_\_\_\_ Phone: \_\_\_\_\_

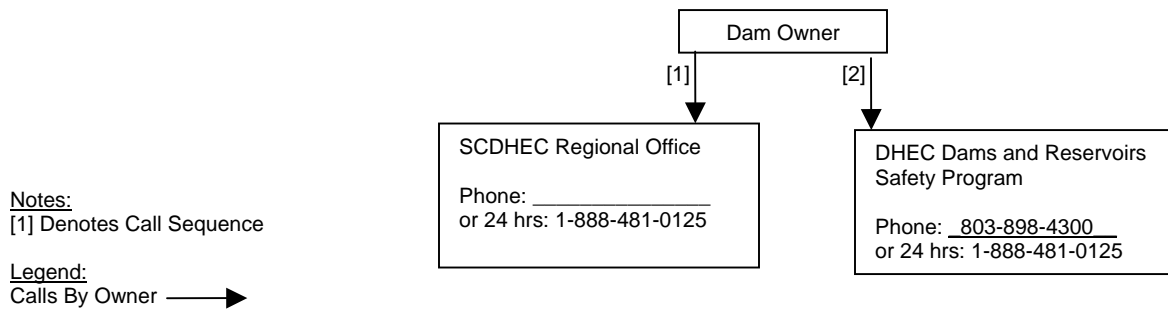
Address: \_\_\_\_\_

8) Name: \_\_\_\_\_ Phone: \_\_\_\_\_

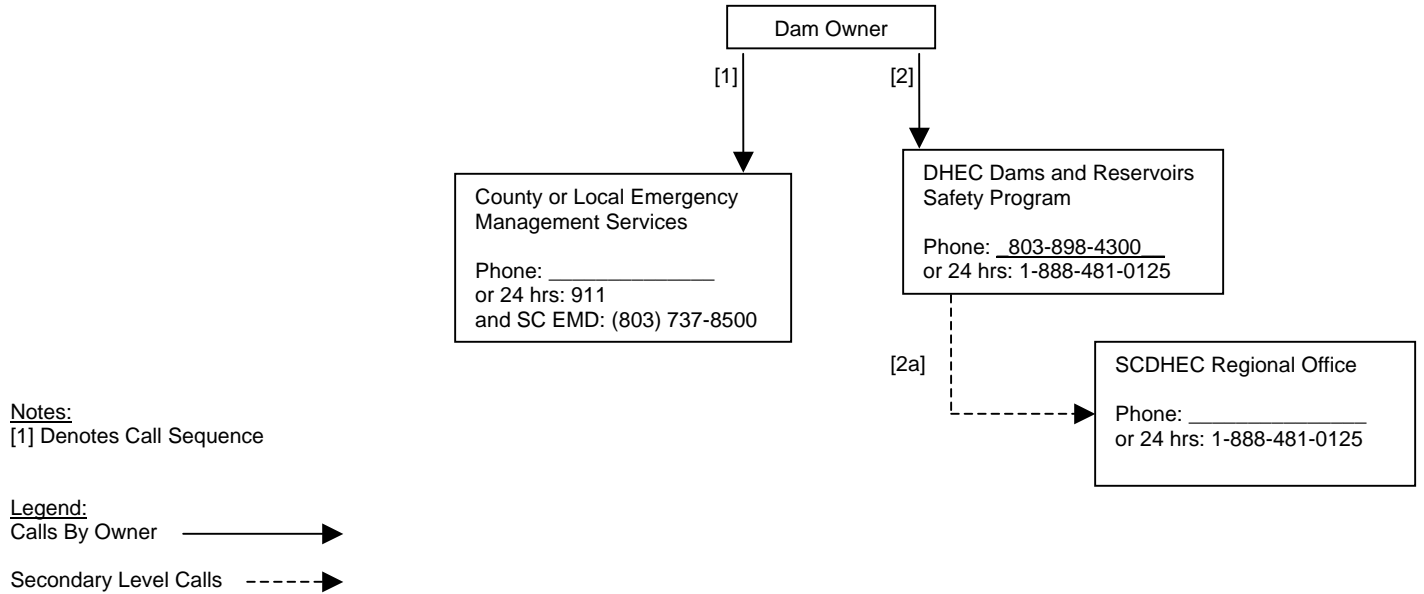
Address: \_\_\_\_\_

## V. Notification Flow Charts

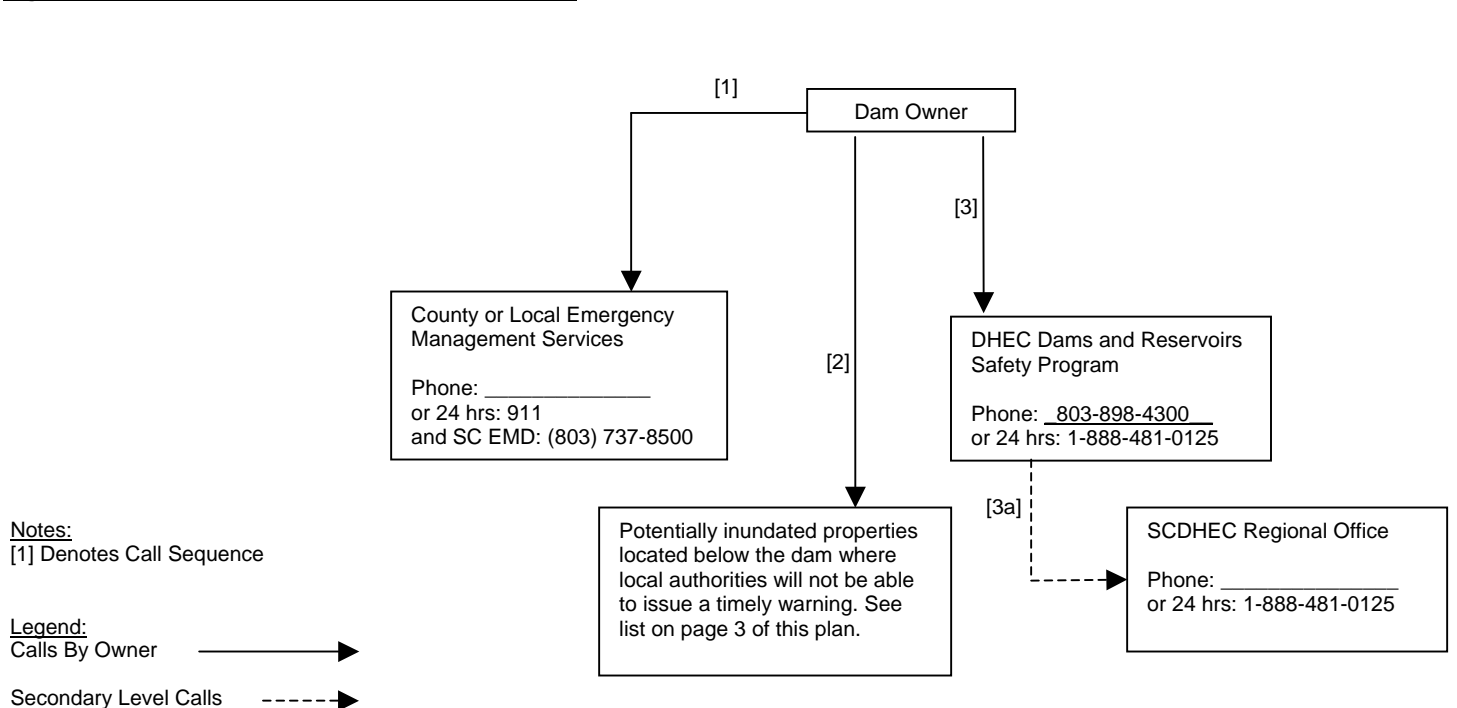
**Figure A: Non-Emergency Notification Flow Chart**



**Figure B: Potential Failure Notification Flow Chart**



**Figure C: Imminent Failure Notification Flow Chart**



## Instructions

This Surveillance Emergency and Emergency Notification and Action Plan form is the emergency alert notification plan on a format sheet supplied by the Department for use on high and significant hazard state regulated dams in South Carolina. This is required by section 72-4 of the Dams and Reservoirs Safety Act Regulations. Any owner of a state regulated dam that fails to provide an updated copy of this form during scheduled inspections may be subject to administrative fines. It is important to coordinate with your local and State emergency responders to insure the actions prescribed in this plan are sufficient for their planning purposes. If you need assistance completing this form, please contact the Dams and Reservoirs Safety program. Contact information may be obtained from the following website or you may call 803-898-4300. <http://www.scdhec.gov/environment/water/drsmainpage.htm>

### Completing the Form:

You must type or print legibly. You must include the original, signed form.

### Where to File:

Once you have coordinated with your local and State emergency responders and the form is completed, submit one copy with original signatures to the address shown below:

SCDHEC – BOW  
Dams and Reservoirs Safety  
2600 Bull St.  
Columbia, SC 29201

Additionally, the emergency dispatch in your area should be provided a copy of this form once it has been accepted by DHEC. You should retain a copy onsite or near by for use during an emergency. DHEC inspectors will request to view this plan along with any other Emergency Action Plan (EAP) documentation you may have during scheduled inspections.

### I. Signatures and Certifications:

DO NOT SIGN IN BLACK INK! This form must contain original signature. If the dam owner is a company, print the name of the person who is signing the form for the dam owner. A person with signatory authority for the dam owner must sign the application.

### II. Communication

Insert the name and if applicable the position for the individual that is responsible for implementing the Surveillance and Emergency Notification and Action Plan as well as the dam's SC Inventory Number into the prescribed messages for potential and imminent failure events.

### III. Dam Owner and Site Information

Enter the SC Inventory Number, Dam Name, and County in which the dam is located. Additional list the SC Inventory Number on page one in the title block (top right hand side).

A. Dam Owner Information: Enter the official or legal name of the dam owners. If the dam owner is a company, then a contact person should be listed. This can be someone other than the person that has signatory authority for the company. Please provide all requested information including the email address.

B. Site Information: Enter a description of the sites location such as a site address or nearest intersection and provide all other requested information including the latitudinal and longitudinal coordinate information. See the following website for assistance in obtaining latitude/ longitude coordinates: [http://www.epa.gov/tri/report/siting\\_tool/index.htm](http://www.epa.gov/tri/report/siting_tool/index.htm). Latitude (from 32° to 35°) and longitude (78° to 83°) should be for the center of the dam to the nearest 15". Minutes (') should be from 0 to 59, and seconds (") should be 0, 15, 30, or 45.

### IV. Potentially Inundated Properties

Enter the information for properties located in low-lying areas that would likely be inundated in the event of a failure of the dam that would be inundated. Inundation maps may be required to determine which properties are at risk. If inundation maps are developed, include them as an addendum to this form. In situations where vast amounts of properties will need to be contacted and evacuated, **coordination with the local emergency responders will be necessary** and only properties where local authorities cannot issue timely warnings should be listed. The following website has valuable information and instructions for developing inundation maps: <http://www.damsafety.org/community/owners/?p=3a95437d-1876-46d6-843b-d65d45beb46a>

### V. Notification Flow Charts

Enter the primary contact information for the local emergency management service and the SCDHEC Regional Office that serves the area where the dam is located. The following websites may be used but confirm the use of the number during an emergency with the county agency:

County Emergency Responders- <http://www.scemd.org/index.php/who-we-are/county-agencies>

DHEC Regional Offices- <http://www.scdhec.gov/environment/envserv/regions.htm>

### Office Mechanics and Filing

This form shall be kept on file until the dam is no longer regulated by DHEC or it is updated. Copies will be stored with the Bureau of Water and Regional Office serving the county in which the dam is situated.