

DAM SAFETY SUPPORT ANNEX

Coordinating Agency

Floyd County Sheriff's Office
Floyd County Emergency Management

Cooperating Agencies

County Administrator
Virginia Department of Conservation and Recreation (DCR)
Virginia Department of Emergency Management (VDEM)

Introduction

Purpose:

To facilitate the evacuation of downstream residents or notification of the public in the event of an imminent or impending dam failure.

Scope:

The Virginia Department of Conservation and Recreation (DCR) provides detailed guidance to dam owners in developing emergency action plans and emergency preparedness plans in the event of dam failure. Local government is also responsible for developing compatible procedures to warn and evacuate the public in the event of dam failure.

Concept of Operations

General:

Dam owners are responsible for the proper design, construction, operation, maintenance, exercising, and safety of their dams. They are also responsible for reporting abnormal conditions at the dam to the Sheriff, the County Administrator and the Coordinator of Emergency Management and to recommend evacuation of the public below the dam if it appears necessary. Owners of dams that exceed 25 feet in height and impound more than 50 acre-feet (100 acre-feet for agricultural purposes) of water must develop and maintain an (EAP). This plan shall include a method of notifying and warning persons downstream and of notifying local authorities in the event of impending failure of the dam. An EAP is one of three items required prior to issuance of an Operation and Maintenance Certificate by the Virginia DCR. In addition to the Virginia DCR, a copy of the plan must be provided to the local Director of Emergency Management and to the Virginia Department of Emergency Management.

Standards have been established for "Dam Classifications" and "Emergency Stages." See Tab 1. The affected public will be routinely notified of conditions at the dam during Stage I. If conditions escalate to Stage II, emergency services personnel will immediately notify the public affected to be on alert for possible evacuation of the areas that would be flooded. If conditions deteriorate and overtopping or failure of a dam has occurred or is imminent, as in Stage III, the County Administrator and/or the Coordinator of Emergency Management and/or the Chairman/Director of Emergency Management will warn the public, order evacuation from the affected area, and declare a local emergency.

Organization:

The Chairman of the Board of Supervisors/Director of Emergency Management, the County Administrator and/or the Coordinator of Emergency Management, or appointee), in their absence, is responsible for making the decision to order evacuation in the event of an imminent or impending dam failure. The Sheriff's Office will disseminate the warning to evacuate.

AUTHORITIES:

In addition to those listed in the Basic Plan:

- A. The Virginia Dam Safety Act, Article 2, Chapter 6, Title 10.1 (10.1-604 et seq) of the Code of Virginia
- B. Virginia Soil and Water Conservation Board, Chapter 20 – Impounding Structure Regulations. 4VAC50-20-10 through 4VAC50-20-400 of the Virginia Administrative Code

Emergency Management Actions – Dam Safety

Normal Operations

1. Dam Owners
 - a. Develop an Emergency Action Plan (EAP) for warning and evacuating the public in the event of dam failure;
 - b. Obtain an Operations and Maintenance Certificate from the Virginia Department of Conservation and Recreation;
 - c. Operate and maintain the dam to assure the continued integrity of the structure; and
 - d. Exercise and test dam EAP to ensure that it meets current codes and regulations.

2. Floyd County
 - a. Develop compatible procedures to warn and evacuate the public in event of a dam failure.

Increased Readiness

1. Stage I Conditions
 - a. Alert on-duty emergency response personnel.

2. Stage II Conditions
 - a. Alert on-duty emergency response personnel;
 - b. Notify the public of possible dam failure;
 - c. Review warning and evacuation plans and procedures; and
 - d. Place off-duty emergency response personnel on alert.

Emergency Operations

1. Mobilization Phase--Latter Part of Stage II or at Stage III Conditions
 - a. Activate Emergency Operations Center (EOC);
 - b. Notify Virginia Emergency Operations Center (VEOC); and
 - c. Begin record keeping of all incurred expenses

2. Response Phase—Stage III Conditions
 - a. Activate EOC;
 - b. Order immediate evacuation of residents in expected inundation areas;
 - c. Sound warning through use of sirens, horns, Emergency Alert System (EAS), telephone, or door to door notification to evacuate individuals.
 - d. Call in necessary emergency response personnel to provide help required to save lives and property; and
 - e. Follow all established procedures within designated functional areas specified in this plan.

Recovery

1. Provide assistance to disaster victims;
2. Clean up debris and restore essential services;
3. All agencies tasked in this plan implement recovery procedures;
4. Review emergency procedures used and revise, if necessary, to ensure lessons learned are applied and incorporated into future plans; and
5. Determine what mitigation measures, if any, should be initiated (i.e., zoning, design of dams, etc.)

Responsibilities

Dam Owners:

- Develop an emergency action plan (or emergency preparedness plan) for warning and evacuating the Public in the event of dam failure;
- Obtain an Operation and Maintenance Certificate from the Virginia DCR;
- Provide plan copies to the locality, Virginia Departments of Conservation and Recreation (DCR) and Emergency Management (VDEM);
- Operate and maintain the dam to assure the continued integrity of the structure;
- Conduct exercises to ensure responsible parties understand their role and appropriate response capabilities exist; and
- If an owner or the owner's engineer has determined that circumstances are impacting the integrity of the impounding structure that could result in the imminent failure of the impounding structure, temporary repairs may be initiated prior to approval from the board. The owner shall notify the Virginia DCR within 24 hours of identifying the circumstances impacting the integrity of the impounding structure.

Local Government:

- Develop compatible procedures to warn and evacuate the public in the event of dam failure;
- Notify public of possible dam failure;
- Order immediate evacuation of residents in expected inundation areas;
- Sound warning through use of vehicle sirens, horns, and loudspeakers, Emergency Alert System, telephone calls, and door-to-door notification to evacuate individuals immediately out of the area or to high ground in area for later rescue;
- Provide assistance to disaster victims;
- Clean up debris and restore essential services;
- All agencies tasked in this plan implement recovery procedures;
- Review emergency procedures used and revise, if necessary, to insure lessons learned are applied in future disasters; and
- Determine what mitigation measures, if any, should be initiated (zoning, design of dams, etc.).

Tab 1 to Dam Safety Support Annex DAM CLASSIFICATIONS AND EMERGENCY STAGES

Dam Classifications

Dams are classified, as the degree of hazard potential they impose should the structure fail completely. This hazard classification has no correlation to the structural integrity or probability of failure.

Dams which exceed 25 feet in height **and** impound more than 50 acre feet in volume, or 100 acre feet if for agricultural purposes, are required to obtain an Operation and Maintenance Certificate which includes the development of an emergency action plan administered by the Department of Conservation and Recreation.

High - dams that upon failure would cause probable loss of life or serious economic damage

Significant - dams that upon failure might cause loss of life or appreciable economic damage

Low - dams that upon failure would lead to no expected loss of life or significant economic damage. Special criteria: This classification includes dams that upon failure would cause damage only to property of the dam owner.

Emergency Stages

When abnormal conditions impact on a dam, such as flooding or minor damage to the dam, the dam owner should initiate specific actions that will result in increased readiness to respond to a potential dam failure. The following stages identify actions and response times which may be appropriate.

Stage I - Slowly developing conditions; five days or more may be available for response. Owner should increase frequency of observations and take appropriate readiness actions.

Stage II - Rapidly developing conditions; overtopping is possible. One to five days may be available for response. Increase readiness measures. Notify local Coordinator of conditions and keep him informed.

Stage III - Failure has occurred, is imminent, or already in flood condition; overtopping is probable. Only minutes may be available for response. Evacuation recommended.

Reference: "Dam Safety, Floodplain Management." Virginia Department of Conservation and Recreation. October, 29 2008. www.dcr.virginia.gov/dam_safety_and_floodplains/

**Tab 2 to Dam Safety Support Annex
 FLOYD COUNTY DIRECTORY OF DAMS REGULATED BY
 VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION
 AND REQUIRING EMERGENCY ACTION PLANS¹**

The Following Dams are Federally regulated by the DCR

<u>DAM NAME</u> <u>Owner</u>	<u>HEIGHT</u>	<u>TOTAL (Ac-Ft)</u>	<u>CLASS</u>
Park Ridge Dam #60301	20 ft	78 square ft	3

The following dams are UNREGULATED by DCR due to size exemption, federally owned exemption, etc.

<u>DAM NAME</u>	<u>OWNER</u>	<u>REASON FOR EXEMPTION</u>
Rakes Mill Dam # 06304	Department of the Interior	Federally Owned – EAP not required
Mabry Mill Dam # 06303	Department of the Interior	Federally Owned-EAP not required
Scott Dam #06302	Scott Farms	Agricultural Use

¹ Changes to code sections resulting from the Virginia General Assembly’s House Bill 837 become effective July 1, 2009 unless otherwise noted. Some dams listed in this annex, which were previously exempt from the requirements, will likely, under the provisions of the new code changes meet the regulatory requirements. Directions from DCR will be forthcoming.

**Tab 3 to Dam Safety Support Annex
FLOYD COUNTY REGISTERED DAM CONTACT INFORMATION**

(Include a map indicating local of dams within jurisdiction)

Name of Impounding Structure: <i>Park Ridge Dam</i>	
Inventory Number: 06301	City/County: Floyd County
Other Name (if given):	
Stream Name: <i>Meadow Run</i>	
Latitude: 36° 59' 30.496" N	Longitude: 80° 7' 52.83" W
Name of Impounding Structure Operator: <i>Park Ridge Development of Floyd & Patrick Co, Inc.</i>	
Address: 171 Park Ridge LN SE, Copper Hill VA 24079	
Telephone: 540-651-6134	Alternate Number(s):
Other means of communication:	

Name of Impounding Structure: <i>Rakes Mill Dam</i>	
Inventory Number: 06302	City/County: Floyd County
Other Name (if given):	
Stream Name: <i>Dodds Creek</i>	
Latitude: 36° 51' 57.751" N	Longitude: 80° 17' 5.781" W
Name of Impounding Structure Operator: <i>Department of Interior</i>	
Address: 1849 C Street, N.W. Washington DC 20240	
Telephone: 202-208-3100	Alternate Number(s):
Other means of communication:	

Name of Impounding Structure: <i>Mabry Mill Dam</i>	
Inventory Number: 06303	City/County: Floyd County
Other Name (if given):	
Stream Name: <i>Quarter Field Branch</i>	
Latitude: 36° 45' 2.513" N	Longitude: 80° 24' 21.249" W
Name of Impounding Structure Operator: <i>Department of Interior</i>	
Address: 1849 C Street, N.W. Washington DC 20240	
Telephone: 202-208-3100	Alternate Number(s):
Other means of communication:	

Name of Impounding Structure: <i>Scott Dam</i>	
Inventory Number: 06304	City/County: Floyd County
Other Name (if given):	
Stream Name: <i>Jones Branch</i>	
Latitude: 36° 56' 28.114" N	Longitude: 80° 19' 50.731" W
Name of Impounding Structure Operator: <i>Jonathan R Beegle</i>	
Address: 616 Deerfield LN NE Floyd VA 24091	
Telephone: 540-250-6587	Alternate Number(s):
Other means of communication:	

Name of Impounding Structure:	
Inventory Number:	City/County: Floyd County
Other Name (if given):	
Stream Name:	
Latitude:	Longitude:
Name of Impounding Structure Operator:	
Address:	
Telephone:	Alternate Number(s):
Other means of communication:	

Park Ridge Dam, 171 Park Ridge Lane SE, Copper Hill, VA



Rakes Mill Dam, Mile Marker 163 Blue Ridge Parkway, Floyd, VA



Mabry Mill Dam, Mile Marker 175 Blue Ridge Parkway, Willis VA



Scott Dam, 616 Deerfield LN NE, Floyd, VA

