GFT

The Montana Department of Natural Resources & Conservation

Emergency Action Plans Modernization in Montana

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October 15, 2025

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AGENDA

- EAP Overview
- Why modernize EAPs in Montana?
- Modernized templates available through DNRC
- Additional resources available to Dam Owners and EAP preparers
- What's next?
- Questions?

EAP Overview

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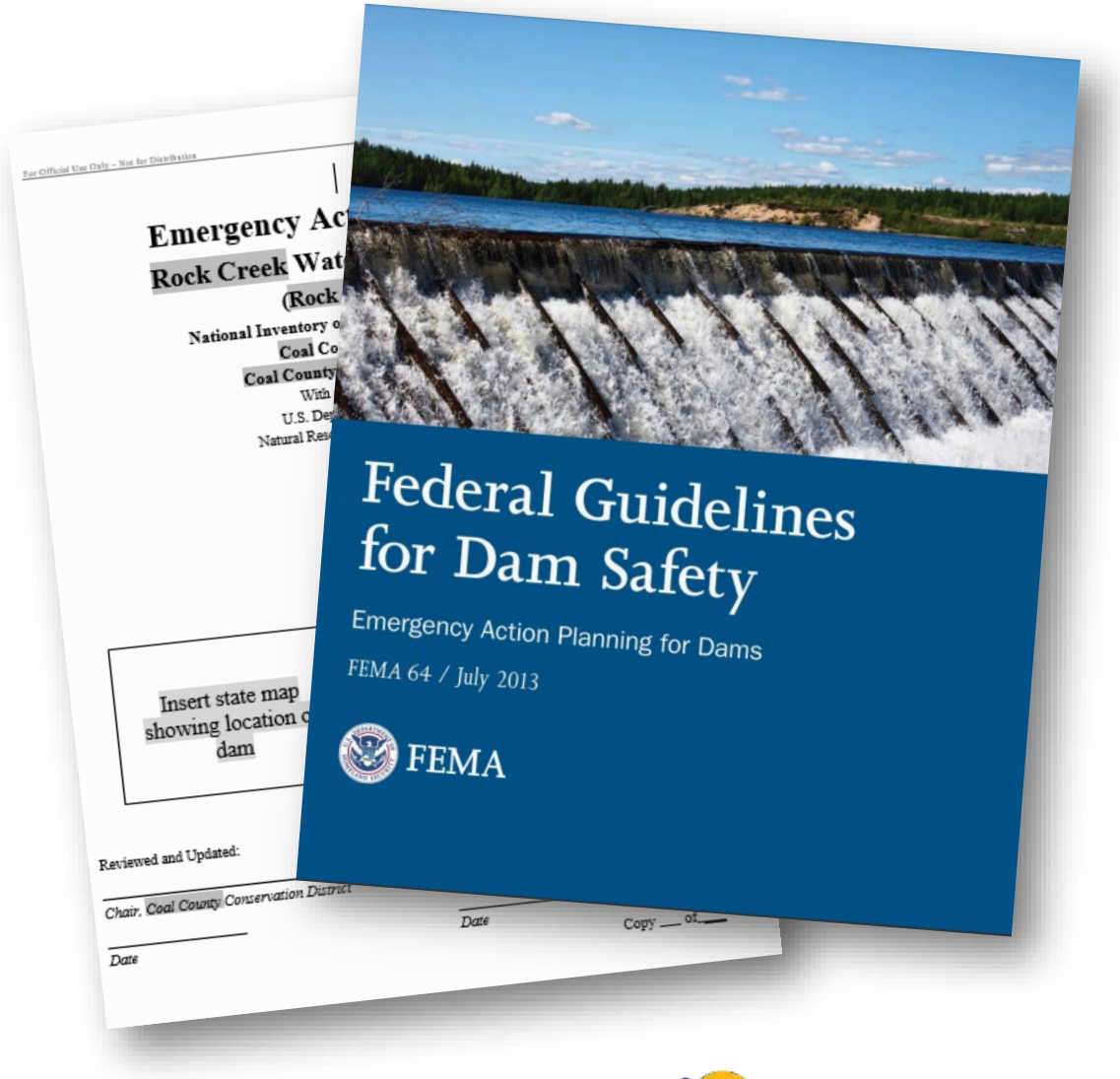
Emergency Action Plan (EAP)

An EAP is a formal document that identifies potential emergency conditions at a dam and specifies actions to be followed to minimize loss of life and property damage (FEMA-64)

Spillway Erosion Incident at Sage Creek Dam, Petroleum County

Federal Guidelines and Templates

- Notification Flowcharts
- Dam Description
- EAP Process
  - Step 1 – Incident Detection
  - Step 2 – Emergency Level Determination
  - Step 3 – Notification
  - Step 4 – Expected Actions
  - Step 5 – Termination
- Roles and Responsibilities
- Preparedness
- Inundation Maps



Michigan seeks disaster declaration after 2 dam failures

2020

Michigan Gov. Gretchen Whitmer says she will request a federal disaster declaration for the Midland area, where a failure of two dams destroyed 150 houses and caused more than $200 million in damage

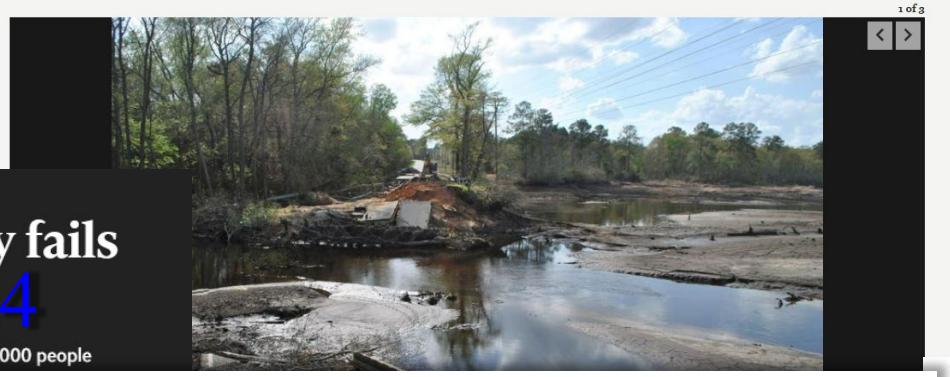
By ANNA LIZ NICHOLS Associated Press/Report for America
June 8, 2020, 5:50 PM • 2 min read

Orangeburg dams that failed during deadly floods were already in poor condition

2024

BY CALEB BOZARD CBOZARD@POSTANDCOURIER.COM
MAY 6, 2025

1 of 3



Kakhovka Dam destruction inflicted US$14 billion damage and loss on Ukraine: Government of Ukraine–UN report

2023

17 October 2023

News > World > Americas

Minnesota's Rapidan dam partially fails amid severe flooding

2024

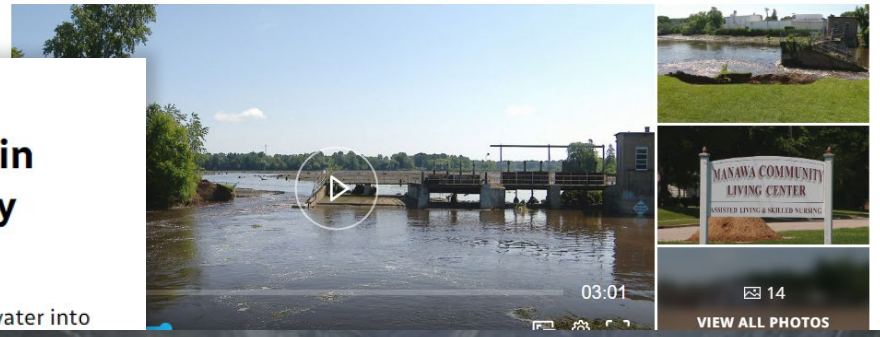
Rapidan Dam is near the city of Mankato, about 90 minutes from Minneapolis, and home to 45,000 people

Katie Hawkinson • Tuesday 25 June 2024 14:41 BST • Comments

Cleanup underway in Manawa following flash flooding and dam breach

2024

by Emily Matesic, FOX 11 News | Sat, July 6th 2024 at 3:32 PM
Updated Mon, July 8th 2024 at 3:40 PM



The catastrophic failure of the Jagersfontein tailings dam: An industrial disaster 150 years in the making

2022

Lochner Marais [a] ✉, Deanna Kemp [b] ✉, Phia van der Watt [a] ✉, Sethulego Matebesi [c] ✉, Jan Cloete [a] ✉, Jill Harris [b] ✉, Michelle Ang Li Ern [b] ✉, John R. Owen [a] ✉

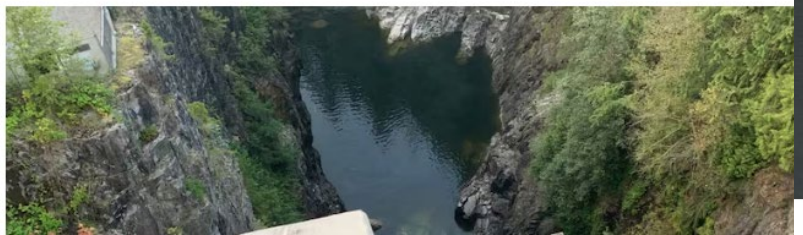
British Columbia · Video

Human error 'clearest contributing factor' in deadly Cleveland Dam incident: preliminary report

2020

2 people downstream were killed when dam unexpectedly released torrent of water into Capilano River on Oct. 1

Rhianna Schmunk, Alex Migdal · CBC News · Posted: Oct 08, 2020 10:54 AM MDT | Last Updated: Oct



WORLD NEWS

Whole families drowned in Libya's flood. Many didn't realize the danger until they heard dams burst

2023

The tragic 23 September 2025 Matai'an landslide dam breach in Taiwan

2025

By Dave Petley 25 September 2025

The aftermath of the landslide dam breach at Matai'an in Taiwan. Image by the Forest Protection Department.

Why Modernize EAPs in Montana?

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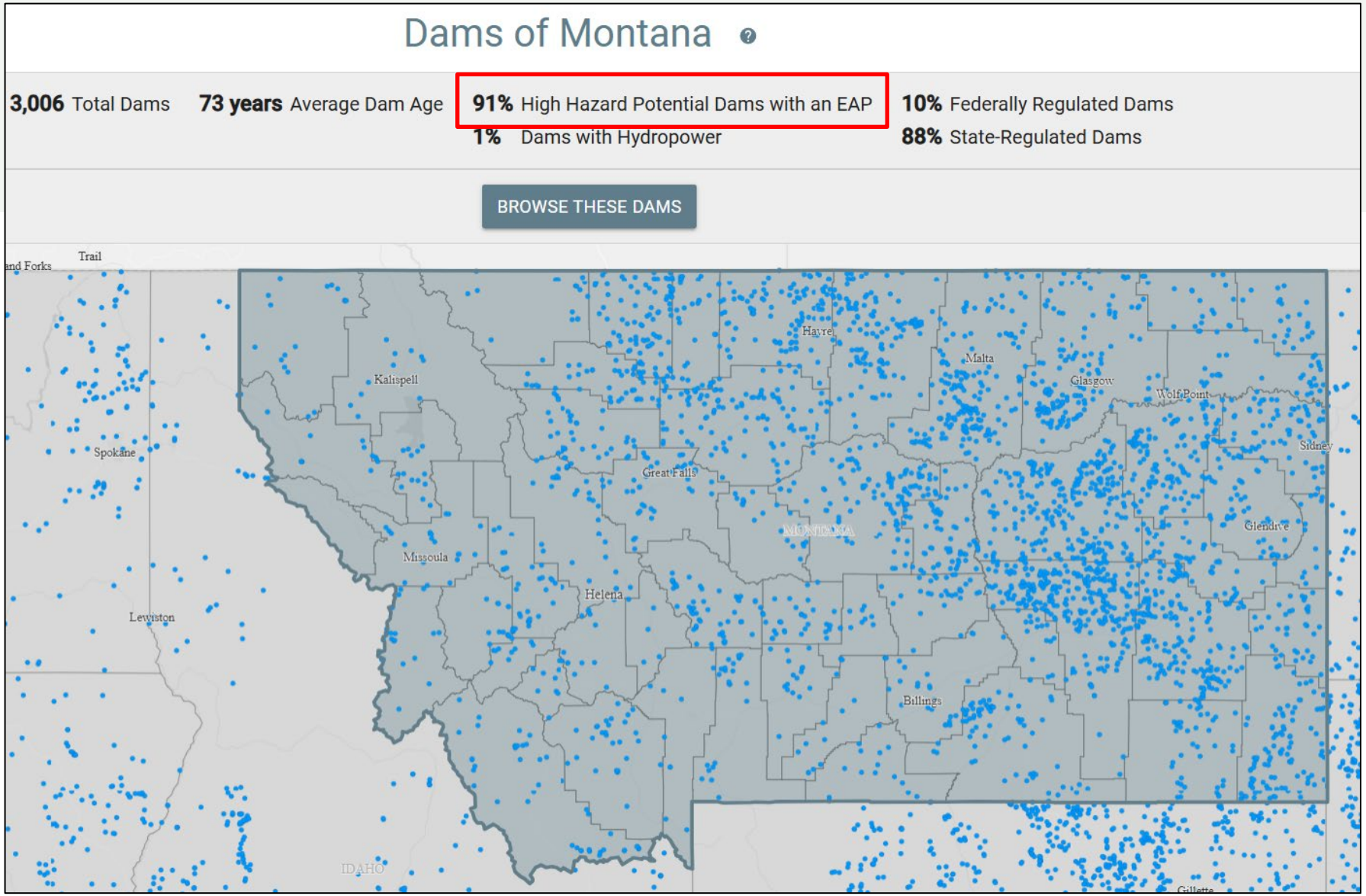
EAPs in Montana

- MT has 459 more dams than our neighbor state (SD) with the second most – and more dams than our other neighbor states ID, WY, and ND combined.



EAPs in Montana

- Like going to the dentist….
- DEAPS, circa 2015– 2017
- Signature requirements changed ~2020
- National NRCS template

Emergency Action Plan (EAP)

Rock Creek Watershed, Dam No. 23

(Rock City Lake)

National Inventory of Dams (NID) No. OK11111

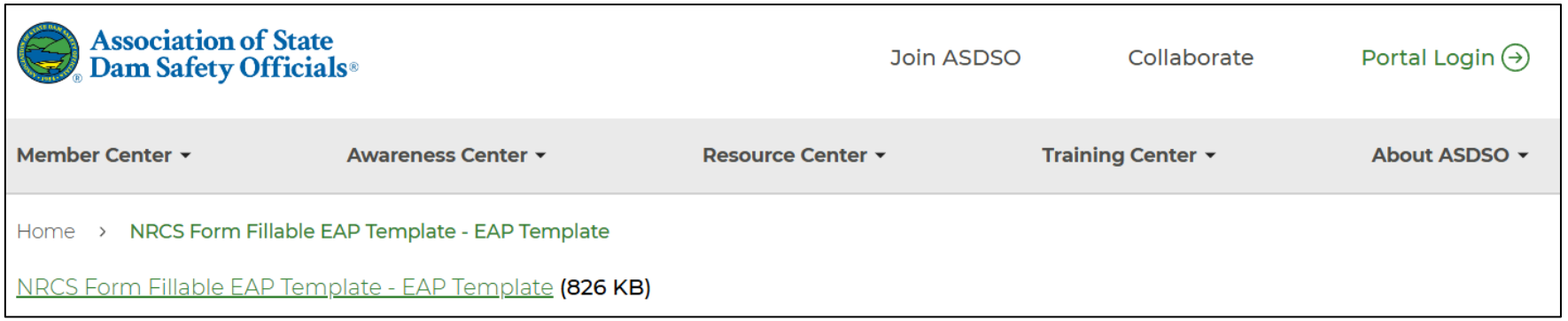
Coal County, Oklahoma

Coal County Conservation District

With assistance from the

U.S. Department of Agriculture

Natural Resources Conservation Service



An Opportunity for EAPs in Montana

- DNRC Dam Safety received $893,164.79 in federal funding from FEMA via the Bipartisan Infrastructure Law (BIL) in April 2024

- This program is <u>not</u> for:
  - Construction
  - Design
  - Improvement of an individual dam

- This program is for:
  - Improving dam safety in Montana

An Opportunity for EAPs in Montana

- In preparation for the BIL grant, Dam Safety conducted a la listening session in January 2024
  - Where can we improve?
  - Where are we lacking on a technical level?
  - How can we help manage the cost of inspection and rehabilitation of our aging dams?
  - How do we better understand and mitigate risk?
  - How can we better serve the citizens of Montana?

- Projects designed to assist Montana dam owners
  - Support water storage and reduce risk

- Find out more: https://dnrc.mt.gov/Water-Resources/Dam-Safety/assistance-to-states

EAP Modernization

- We asked GFT for:
  - Intuitive, easy-to-follow EAP templates tailored to different dams
  - Guidance documents for developing an EAP
  - Guidance on developing useful, community-appropriate inundation maps with evacuation zones
  - Plans specific to the dam and community
  - Data book concept

Modernized EAP Templates

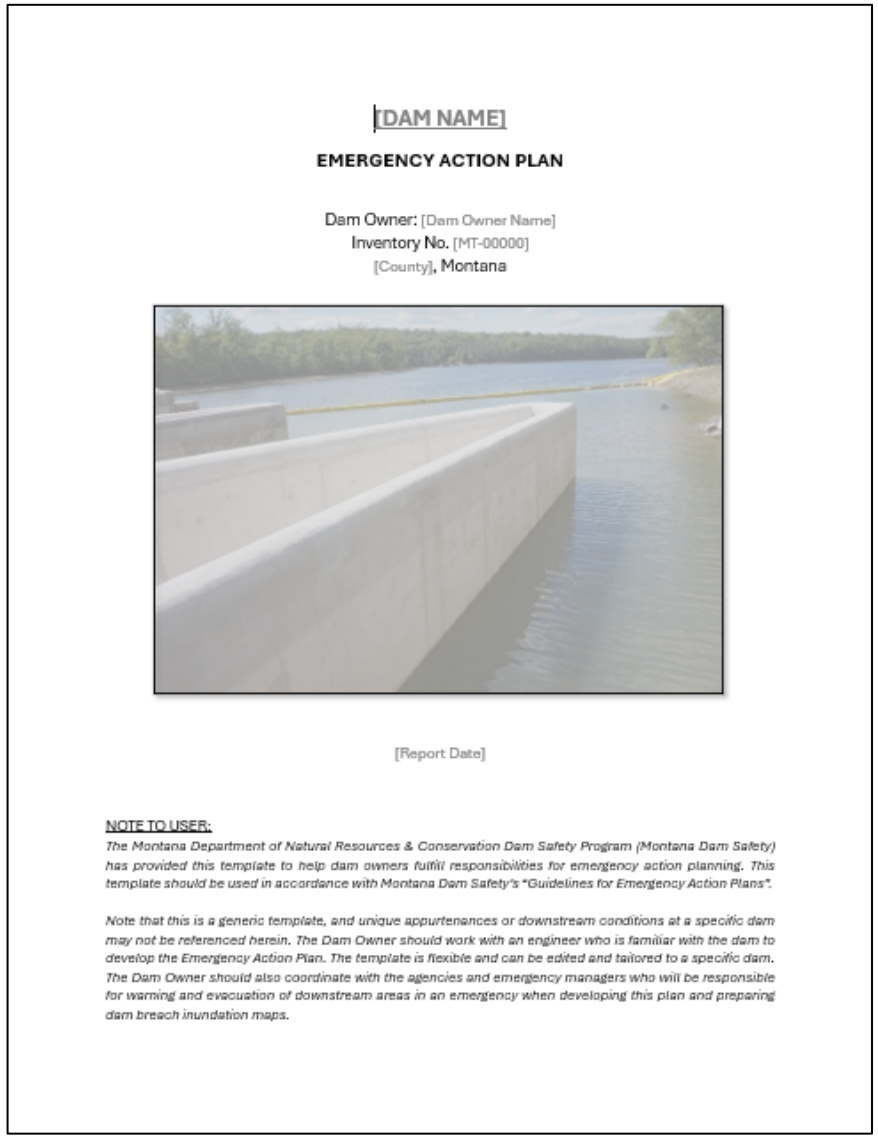
Ingenuity That Shapes Lives™

Key Items Used to Modernize EAP Templates

- Simplified EAP document for use during emergencies
- Supplemental information included in Data Book
- Minimize redundant EAP creation and update effort
- Standardize and modernize inundation maps

Consequence-Based EAP Templates

- Two templates available through DNRC:
  - EAP Template
  - EAP Limited Consequence Template
    - For use when hypothetical dam failures impact 10 or fewer people



[DAM NAME]

EMERGENCY ACTION PLAN

Dam Owner: [Dam Owner Name]
Inventory No. [MT-00000]
[County], Montana

[Report Date]

NOTE TO USER:

The Montana Department of Natural Resources & Conservation Dam Safety Program (Montana Dam Safety) has provided this template to help dam owners fulfill responsibilities for emergency action planning. This template should be used in accordance with Montana Dam Safety's "Guidelines for Emergency Action Plans".

Note that this is a generic template, and unique appurtenances or downstream conditions at a specific dam may not be referenced herein. The Dam Owner should work with an engineer who is familiar with the dam to develop the Emergency Action Plan. The template is flexible and can be edited and tailored to a specific dam. The Dam Owner should also coordinate with the agencies and emergency managers who will be responsible for warning and evacuation of downstream areas in an emergency when developing this plan and preparing dam breach inundation maps.

Key Dam Information

[Dam Name] ([MT-00000])

EAP Date: [Report Date]

Key Information for [Dam Name]

Dam Owner Information

Primary Contact Name:	[Dam Owner Name]
Organization/Affiliation:	
Primary Phone Number:	
Alternative Phone Number:	
Email Address:	
Physical Address:	

Dam Location

River/Drainage:	
Coordinates:	°N °E
Closest Physical Address:	
Directions to Dam:	

Potential Impact Areas

Nearest Potentially Impacted Structure/Property:	miles
Distance to Nearest Structure/Property:	
Nearest Potentially Impacted Town/City:	miles
Distance to Nearest Town/City:	
Approximate Number of Structures in the Floodplain:	

Detailed dam breach inundation maps are provided in Appendix D.

[Dam Name] ([MT-00000])

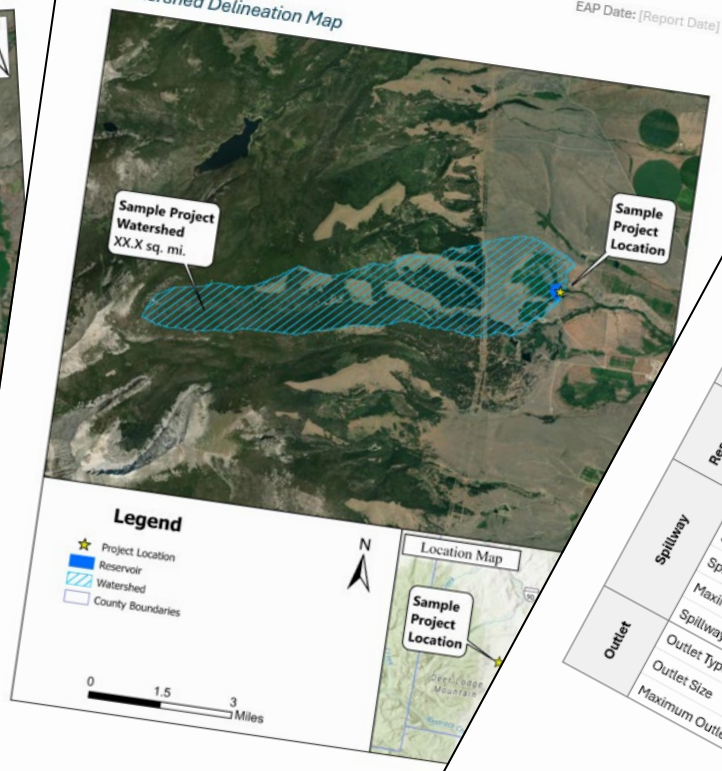
EAP Date: [Report Date]

Dam Location Map

[Dam Name] ([MT-00000])

Watershed Delineation Map

EAP Date: [Report Date]



[Dam Name] ([MT-00000])

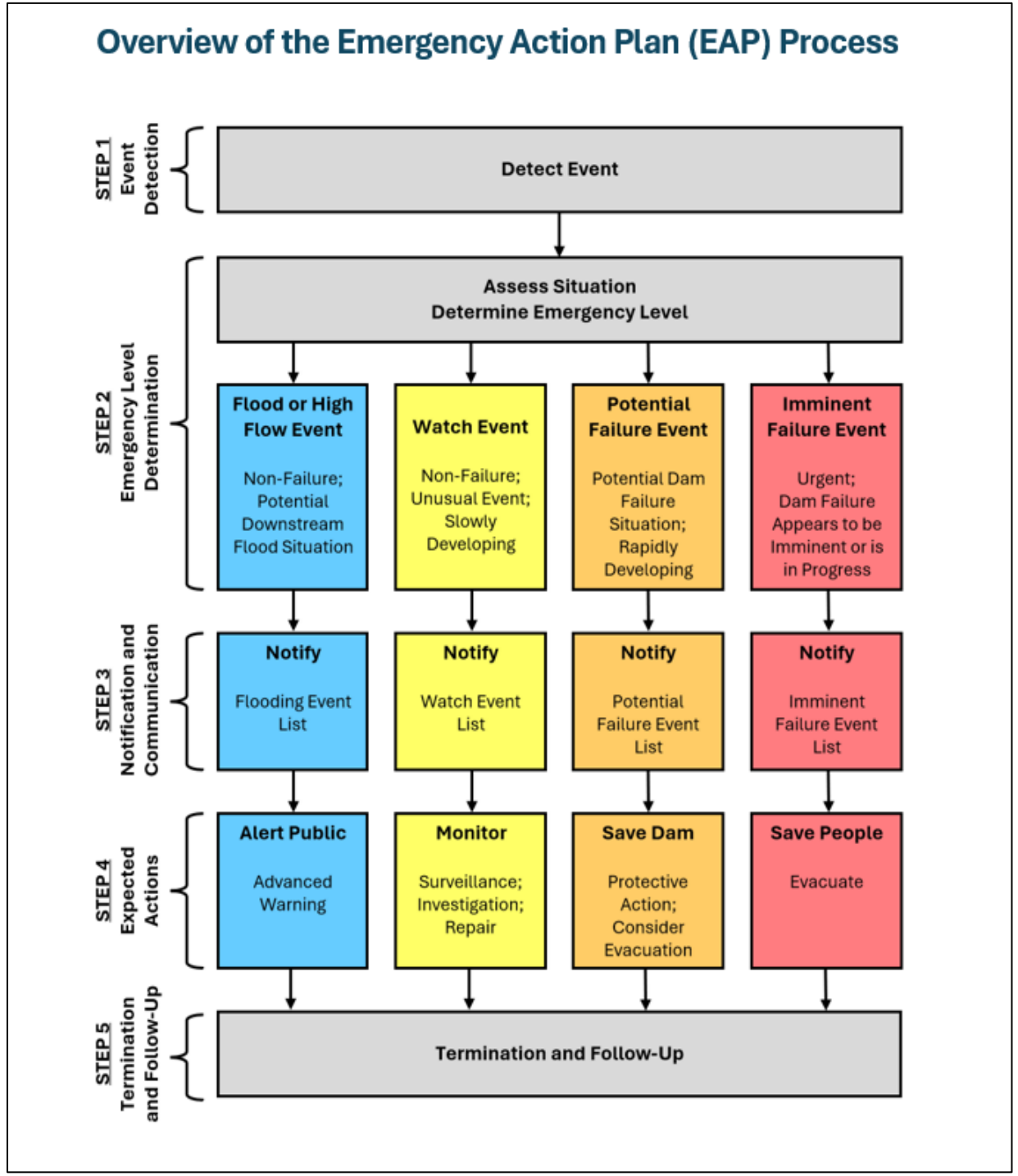
Dam Features and Properties

The following table provides basic information about the dam and its associated structs information including drawings, stage-storage-discharge curves, photographs, and a histo incidents/repair are provided in Appendix C. Additional data specific to [Dam Name] accessed at the U.S. Army Corps of Engineers' National Inventory of Dams website.

Main Dam	Dam Type	
	Dam Height	feet
	Hydraulic Height	feet
	Crest Length	feet
Reservoir	Crest Width	feet
	Drainage Area	square miles
	Surface Area of Reservoir at Spillway Crest	acres
	Reservoir Capacity at Spillway Crest	acre-feet
Spillway	Spillway Type	
	Spillway Width	feet
	Spillway Freeboard	feet
	Maximum Spillway Capacity	cfs
	Spillway Passes 100-year Flood? (Y/N)	
Outlet	Outlet Type	
	Outlet Size	
	Maximum Outlet Capacity	cfs

Overview of the EAP Process

- Step 1 – Detect Event
- Step 2 – Emergency Level Determination
  - Flood/High Water*
  - Watch
  - Potential Failure
  - Imminent Failure
- Step 3 – Notification and Communication
- Step 4 – Expected Actions
- Step 5 – Termination and Follow-up

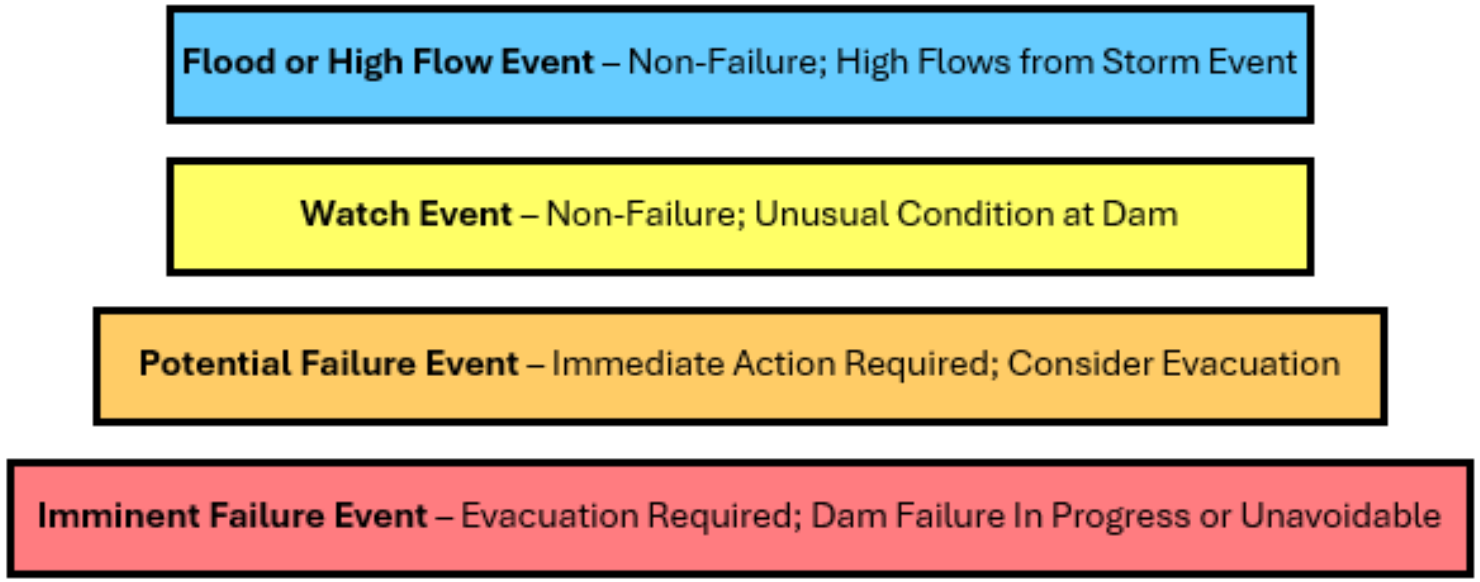


Step 1 – Event Detection

- Identify actions taken to detect unusual or emergency conditions
- Keep in mind the public might observe failures

Outlet Structure Failure at Triple Creek Dam

Step 2 – Emergency Level Determination



Step 3 – Notification and Communication

[DAM Name] ([MT-00000]) EAP Date: [Report Date]
Step 3: Notification and Communication (Potential Failure Event)

Potential Failure Event – Initial Notification Plan

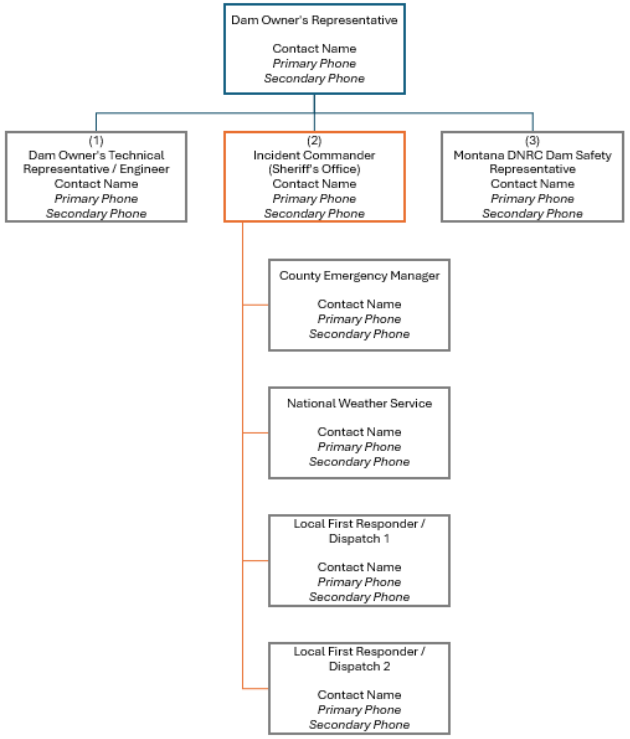
During a potential failure event, the dam owner's technical representative/engineer is typically contacted first to seek guidance regarding intervention to delay or stop failure of the dam. Emergency responders and managers are also notified so that they can prepare for a potential warning and evacuation of the downstream public. The following information should be conveyed:

- Explain what is happening at the dam.
- Be clear the dam is experiencing a POTENTIAL FAILURE EVENT.
- Describe what actions are being taken to prevent dam failure.
- Provide an estimate of how long before the dam would be at risk of failing, if known.
- Evacuation could be required; refer to inundation maps to identify any areas at risk.
- Indicate when status updates will be sent out.
- Indicate who to contact with follow up questions.

	Dam Owner's Representative Contact List – Potential Failure Event			
Priority	*Organization/Role*	*Contact Name*	*Primary Phone*	*Backup Phone*
1	Dam Owner's Technical Representative / Engineer			
2	Incident Commander (Sheriff's Office)			
3	Montana DNRC Dam Safety Representative			

	Incident Commander (Sheriff's Office) Contact List – Potential Failure Event			
Priority	*Organization/Role*	*Contact Name*	*Primary Phone*	*Backup Phone*
1	County Emergency Manager			
2	National Weather Service			
3	Local First Responder/Dispatch 1			
4	Local First Responder/Dispatch 2			

[DAM Name] ([MT-00000]) EAP Date: [Report Date]
Step 3: Notification and Communication (Potential Failure Event)



[DAM Name] ([MT-00000]) EAP Date: [Report Date]
Step 3: Notification and Communication (Potential Failure Event)

Potential Failure Event – Dam Owner Message Template

Dam Owner Message to Stakeholders

This is [*identify caller; name and position*]. There is an emergency condition at [*insert dam name*] located [*insert location of dam*]. The emergency action plan has been activated and we are currently under **potential failure conditions**. We are taking actions to respond to a rapidly developing situation that could result in dam failure. Please prepare to evacuate [*describe inundation area here using familiar landmarks*]. We will communicate any updates or terminations of this emergency message at [*insert time*]. I can be contacted at the following number [*insert primary phone number*] or [*insert secondary phone number*].

Potential Failure Event – Emergency Manager Message Templates

90-Character Message to Public

[*Insert event type*] in this area until [*insert time*] Check local media [*insert title and organization of a local, familiar, authoritative message source*]

360-Character Message to Public

[*insert title and organization of a local, familiar, authoritative message source*] Check and monitor local media now [*insert description of event, dam name, and threat*] in [*insert location of threat*] Message expires [*insert time*]

Full Message to Public

This is an emergency message. [*Owner*] has declared a potential dam failure at [*Name*] Dam as of [*time and date*]. [*Briefly describe the problem or condition.*] It is possible the dam could fail. Attempts to save the dam are under way, but their success cannot yet be determined. [*Describe what actions are being taken to monitor and control the situation.*] [*State the quantity of any releases from the reservoir.*] Additional news will be made available as soon as it is received.

Step 4 – Expected Actions

STEP 4: Expected Actions

This section outlines responsibilities and expected actions of [Dam Owner Name] and other supporting agencies during an emergency. Note that the dam owner should not assume any responsibilities of emergency managers or other governmental authorities (e.g., alerting or evacuating the public) during a dam emergency without prior coordination and authorization.

[Dam Owner Name]

The responsibilities of the dam owner during an emergency are as follows:

- Detect emergency conditions at the dam.
- Quickly assess emergency conditions and determine the appropriate emergency level.
- Activate the EAP and make initial notifications as indicated in Step 3.
- Monitor emergency conditions at the dam and escalate the emergency level if needed.
- Take intervention actions to try to save the dam or delay failure (*during Potential and Imminent Failure Events*). Appendix A summarizes possible actions that could be taken to mitigate specific emergency conditions at [Dam Name]. Appendix B provides a listing of local resources and contractors which may be available to assist with intervention. Additional tools and methods for intervention are summarized in Montana DNRC Dam Safety's Dam Owner Emergency Intervention Toolbox.
- Issue status reports and follow-up notifications to stakeholders as indicated in Step 3.
- Provide periodic communication to external agencies and media (*during Flood or High Flow, Potential, and Imminent Failure Events*).
- Declare termination of EAP activation.

Dam Owner's Technical Representative / Engineer

The responsibilities of a dam owner's technical representative / engineer are as follows:

- Make initial and follow-up notifications as indicated in Step 3.
- Advise the dam owner of the emergency level determination.
- Advise the dam owner of intervention actions to take (*during Potential and Imminent Failure Events*).

Montana DNRC Dam Safety Program

The responsibilities of the Montana DNRC Dam Safety Program during an emergency are as follows:

- Advise the dam owner of the emergency level determination.
- Advise the dam owner of intervention actions to take (*during Potential and Imminent Failure Events*).
- Review and approve emergency repairs, if necessary.

[DAM Name] ([MT-00000]) EAP Date: [Report Date]
Step 4: Expected Actions

Incident Commander (Sheriff's Office)

The Incident Commander is only involved in the EAP process during Flood or High Flow, Potential Failure, and Imminent Failure Events. During these events, the responsibilities of the Incident Commander are as follows:

- Make initial and follow-up notifications as indicated in Step 3.
- Serve as the primary contact responsible for coordination of emergency actions related to the public.
- Understand the EAP and inundation maps (see Appendix D).
- Prepare emergency management personnel for possible evacuations.
- Initiate warnings and order evacuation of people at risk downstream of the dam, if necessary.
- Maintain communication with media.
- Decide when to terminate the emergency and any public evacuation orders.

County Office of Emergency Management (Emergency Managers)

Local emergency managers are only involved in the EAP process during Flood or High Flow, Potential Failure, and Imminent Failure Events. During these events, the responsibilities of emergency managers are as follows:

- Make initial and follow-up notifications as indicated in Step 3.
- Support the Incident Commander in coordinating efforts with other first responders.
- Understand the EAP and inundation maps (see Appendix D).
- Connect the dam owner with local resources if needed.
- Prepare emergency management personnel for possible evacuations.
- Alert and evacuate members of the public, if necessary.
- Maintain communication with media.

Local First Responders/Dispatch

Local first responders/dispatch are only involved in the EAP process during Flood or High Flow, Potential Failure, and Imminent Failure Events. During these events, the responsibilities of local first responders/dispatch are as follows:

- Make initial and follow-up notifications as indicated in Step 3.
- Understand the EAP and inundation maps (see Appendix D).
- Assist with alerting and evacuating members of the public, if necessary. This may include traffic control, siren or door-to-door alerting, rescue services, establishing shelters, etc.

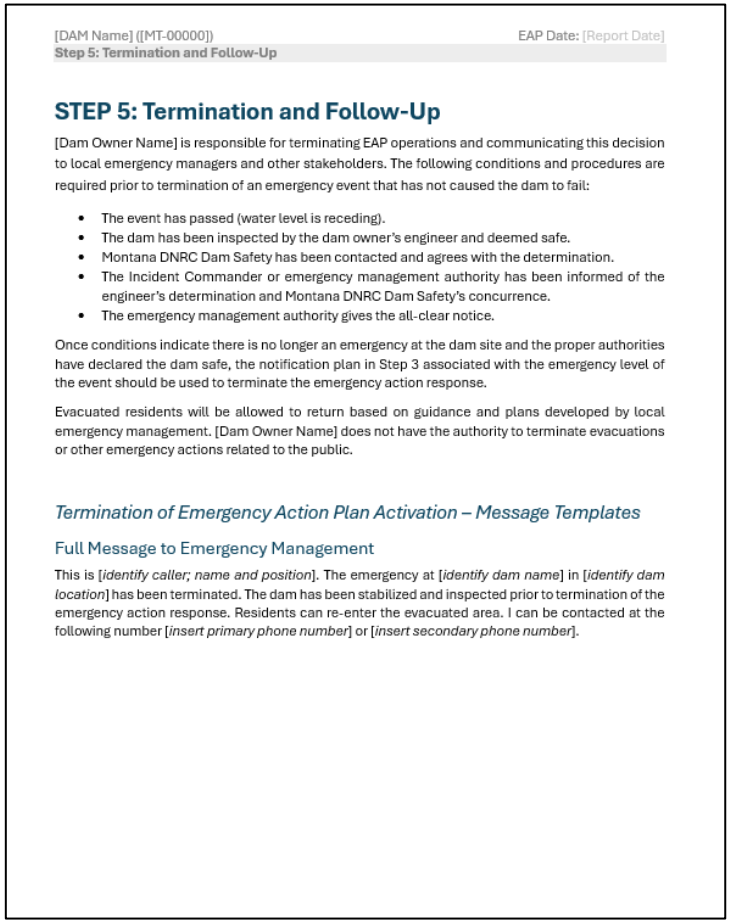
[DAM Name] ([MT-00000]) EAP Date: [Report Date]
Step 4: Expected Actions

National Weather Service

The National Weather Service is only involved in the EAP process during Flood or High Flow, Potential Failure, and Imminent Failure Events. During these events, the responsibilities of the National Weather Service are as follows:

- Understand the EAP and inundation maps (see Appendix D).
- Coordinate with emergency managers to receive notifications and condition status reports.
- Issue flood watches and warnings, if necessary.

Step 5 – Termination



[DAM Name] ([MT-00000]) EAP Date: [Report Date]
Step 5: Termination and Follow-Up

STEP 5: Termination and Follow-Up

[Dam Owner Name] is responsible for terminating EAP operations and communicating this decision to local emergency managers and other stakeholders. The following conditions and procedures are required prior to termination of an emergency event that has not caused the dam to fail:

- The event has passed (water level is receding).
- The dam has been inspected by the dam owner's engineer and deemed safe.
- Montana DNRC Dam Safety has been contacted and agrees with the determination.
- The Incident Commander or emergency management authority has been informed of the engineer's determination and Montana DNRC Dam Safety's concurrence.
- The emergency management authority gives the all-clear notice.

Once conditions indicate there is no longer an emergency at the dam site and the proper authorities have declared the dam safe, the notification plan in Step 3 associated with the emergency level of the event should be used to terminate the emergency action response.

Evacuated residents will be allowed to return based on guidance and plans developed by local emergency management. [Dam Owner Name] does not have the authority to terminate evacuations or other emergency actions related to the public.

Termination of Emergency Action Plan Activation – Message Templates

Full Message to Emergency Management

This is [*identify caller; name and position*]. The emergency at [*identify dam name*] in [*identify dam location*] has been terminated. The dam has been stabilized and inspected prior to termination of the emergency action response. Residents can re-enter the evacuated area. I can be contacted at the following number [*insert primary phone number*] or [*insert secondary phone number*].

Other Information

Other Information

Response at Nighttime

[Describe special considerations, equipment, or other plans to facilitate response during periods of darkness.]

Response during Weekends and Holidays

[Describe special considerations, equipment, or other plans to facilitate response during weekends or holidays.]

Response during Adverse Weather

[Describe special considerations, equipment, or other plans to facilitate response during seasonal or otherwise adverse weather conditions.]

Appendix A: Emergency Condition Guidance

- A table of Emergency Condition Guidance is included as an appendix in the Data Book
  - Should include:
    - all probable emergency conditions at a dam (foundation, embankment, spillway, etc.)
    - emergency actions
    - intervention supplies
    - any information to record

	General Observation – OTHER FLOODING CONDITIONS			
	Specific Observation	***Possible Intervention Actions***	***Intervention Supplies***	***Information to Record***
FLOOD	Unusual release of flow from gate misoperation or failure	• If possible, close gate to end release.	• N/A	• Reservoir level • Estimated discharge
FLOOD	Spillway flow that could result in flooding of people downstream if the reservoir level continues to rise	• Monitor weather and flood forecasts.	• N/A	• Reservoir level • Estimated discharge
WATCH	Significant or maximum recorded spillway flows.	• Initiate 24-hour surveillance. • Monitor weather and flood forecasts. • Fill and stockpile sandbags.	• Sandbags • Shovels	• Reservoir level • Estimated discharge
POTENTIAL FAILURE	Reservoir level is [#] feet below the low point of the dam crest	• Notify emergency contacts. • Place sandbags along the low areas of the top of the dam to control wave action, reduce the likelihood of flow concentration during minor overtopping, and safely direct more water through the spillway. • Cover the weak areas of the top of the dam and downstream slope with riprap, sandbags, plastic sheeting, or other materials to protect against erosion. • Continue monitoring and remedial actions as described above.	• Sandbags • Earth or rockfill • Plastic sheeting	• Reservoir level • Estimated discharge
IMMINENT FAILURE	Water from the reservoir is expected to overtop the dam crest	• Notify emergency contacts and recommend downstream evacuation. • Continue monitoring and remedial actions as described above.	• See above	• Reservoir level • Estimated discharge

Appendix B: Resource Log

[DAM Name] ([MT-00000]) EAP Date: [Report Date]

Appendix B: Local Resources and Contractors to Assist in Intervention Efforts

Locally Available Resources Table				
Business Name	***Contact Name***	***Primary #***	***Alternate #***	***Address***
Heavy Equipment Contractor/Rental				
Sand & Gravel Supply				
Rock Riprap/Fill Material				
Ready Mix Concrete Supply				
Sandbags/Plastic Sheeting				
Pumps				
Diving Contractor				

[DAM Name] ([MT-00000]) EAP Date: [Report Date]

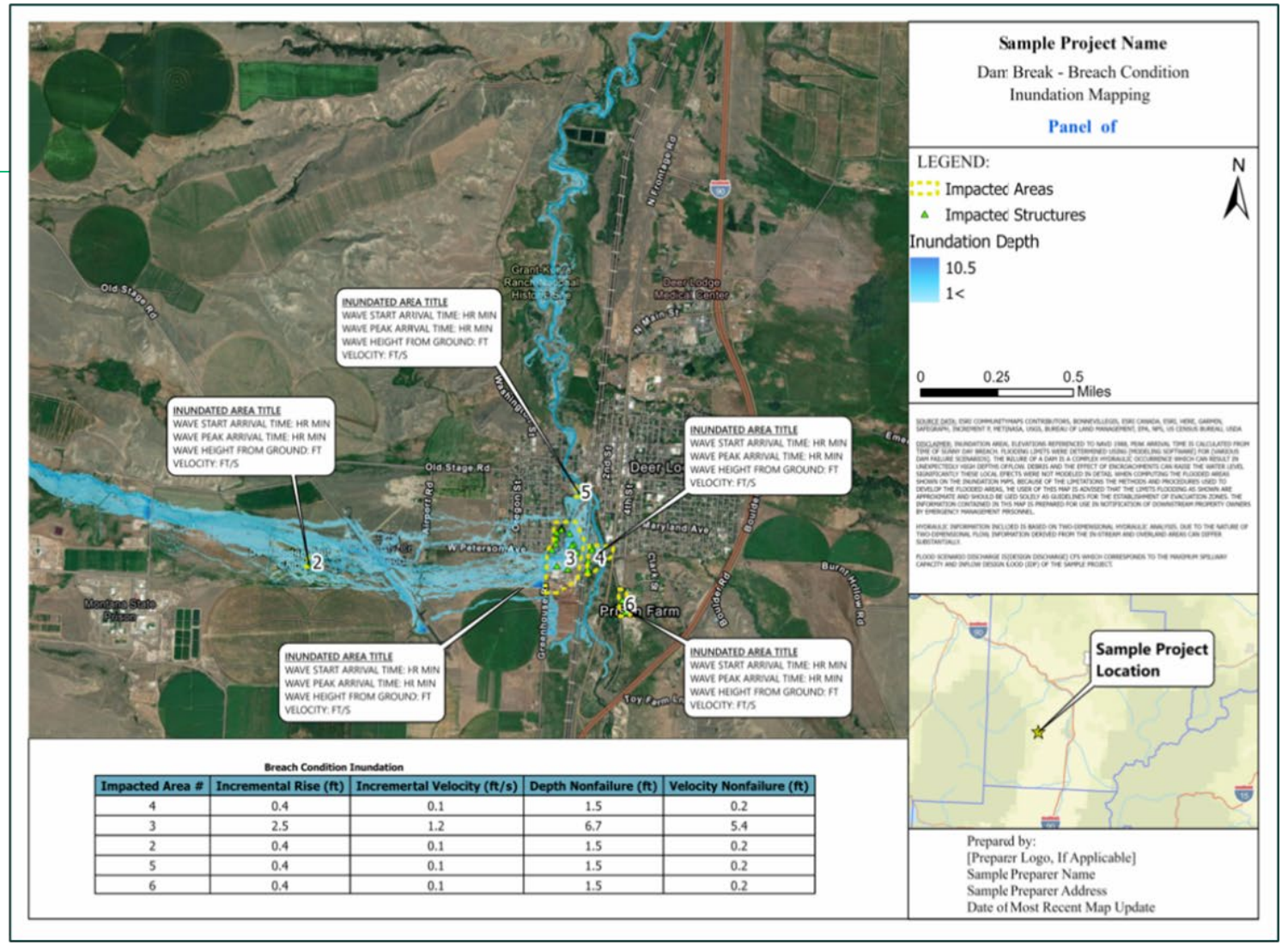
ON-SITE RESOURCES		
Resource Type	***Location***	***Amount Available***

Appendix C:
Dam Information

- Photographs of key features
- Reservoir Storage and Spillway Discharge Curves
- History of Major Repair/Rehabilitation
- History of Incidents/Failures
- Site -Specific Concerns
- Other Pertinent Information

Appendix D: Inundation Maps

- Clearly describe breach condition modeled
- Identify number of properties and roads affected
- Create multiple breach scenarios for different failure conditions, if possible
- A GIS template for inundation maps will be available from DNRC Dam Safety



Breach Condition Inundation

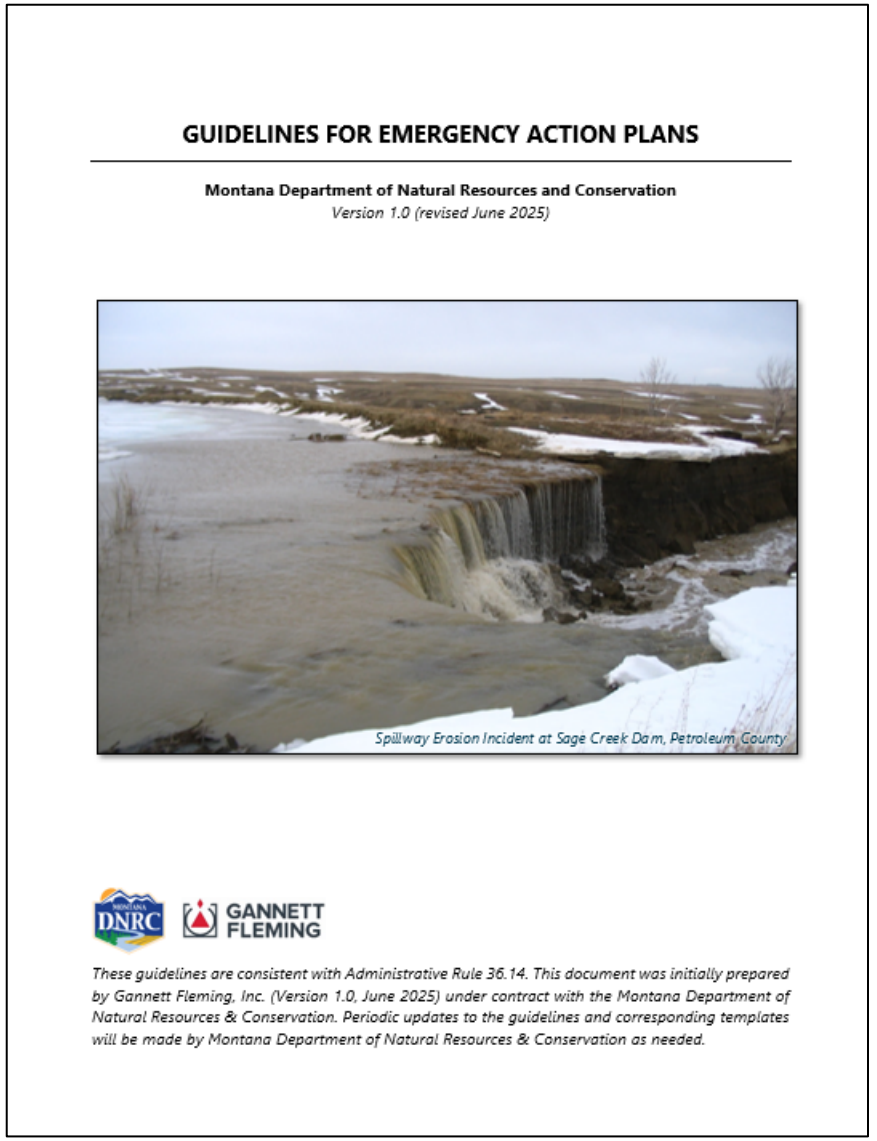
Impacted Area #	Incremental Rise (ft)	Incremental Velocity (ft/s)	Depth Nonfailure (ft)	Velocity Nonfailure (ft)
4	0.4	0.1	1.5	0.2
3	2.5	1.2	6.7	5.4
2	0.4	0.1	1.5	0.2
5	0.4	0.1	1.5	0.2
6	0.4	0.1	1.5	0.2

Additional EAP Resources

Ingenuity That Shapes Lives™

DNRC Guidelines for Emergency Action Plans

- Guidance for creating, updating, and improving an EAP
- Local Emergency Management Agency Coordination
  - Montana Disaster and Emergency Services host Local Emergency Planning Committee meetings
- Breach analysis and inundation map standards
  - Symbology
  - National Structures Inventory
  - Aerial imagery
  - Breach scenarios
  - Modeling software
  - Map metadata
- EAP trainings and exercises


GUIDELINES FOR EMERGENCY ACTION PLANS

Montana Department of Natural Resources and Conservation

Version 1.0 (revised June 2025)

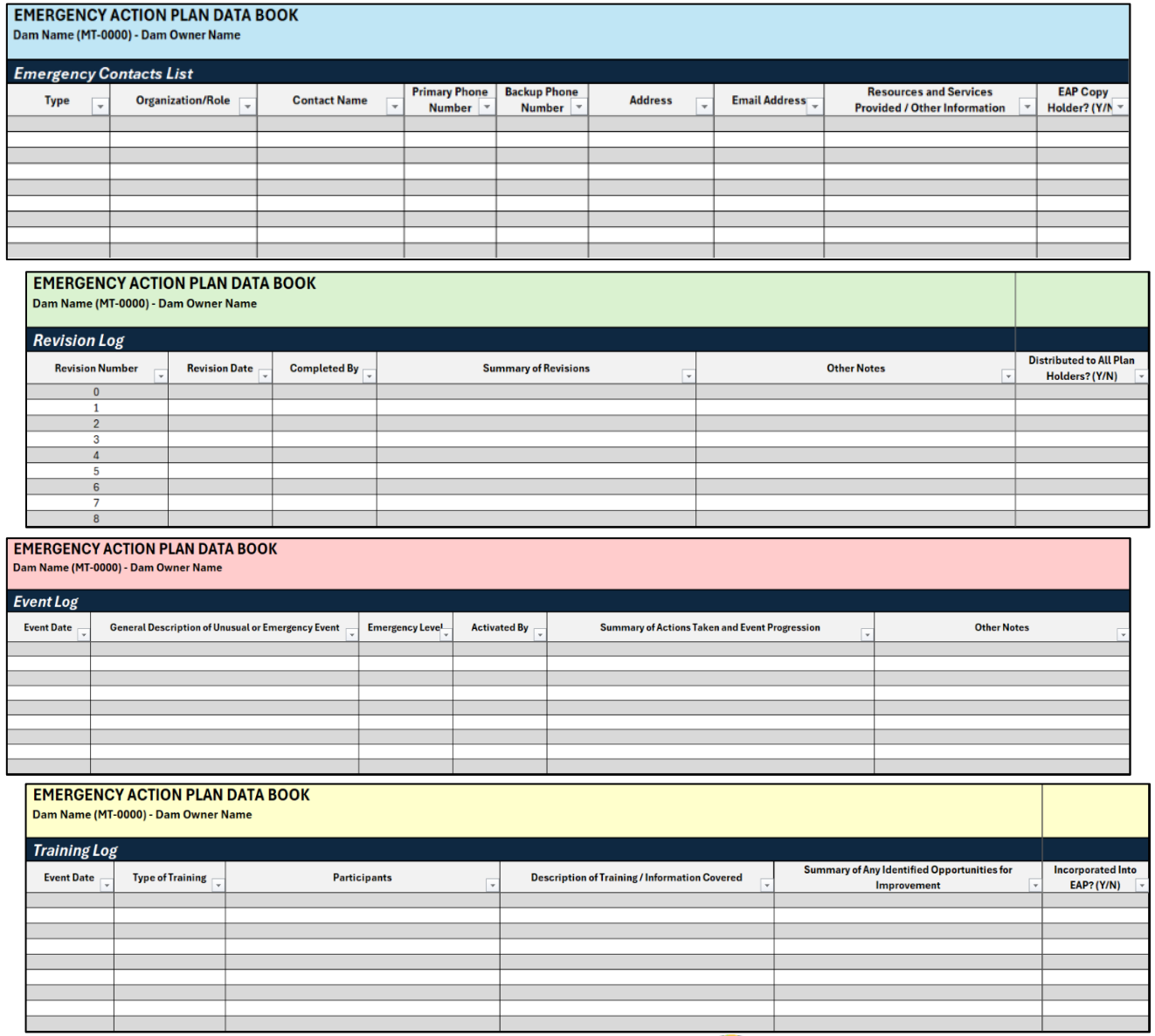
Spillway Erosion Incident at Sage Creek Dam, Petroleum County

GANNETT FLEMING

These guidelines are consistent with Administrative Rule 36.14. This document was initially prepared by Gannett Fleming, Inc. (Version 1.0, June 2025) under contract with the Montana Department of Natural Resources & Conservation. Periodic updates to the guidelines and corresponding templates will be made by Montana Department of Natural Resources & Conservation as needed.

Data Book

- Spreadsheet with the following information:
  - Contact information for all emergency contacts, contractors/emergency resource contacts, and EAP copy holders
  - A record of EAP trainings and exercises
  - An EAP revision log
  - An event log for past EAP activation events
- Digital files of the dam breach inundation extent (shapefile and .kmz formats)
- Dam Breach Inundation Analysis Report
  - Map metadata



EMERGENCY ACTION PLAN DATA BOOK
Dam Name (MT-0000) - Dam Owner Name

Emergency Contacts List

Type	Organization/Role	Contact Name	Primary Phone Number	Backup Phone Number	Address	Email Address	Resources and Services Provided / Other Information	EAP Copy Holder? (Y/N

EMERGENCY ACTION PLAN DATA BOOK
Dam Name (MT-0000) - Dam Owner Name

Revision Log

Revision Number	Revision Date	Completed By	Summary of Revisions	Other Notes	Distributed to All Plan Holders? (Y/N)
0					
1					
2					
3					
4					
5					
6					
7					
8					

EMERGENCY ACTION PLAN DATA BOOK
Dam Name (MT-0000) - Dam Owner Name

Event Log

Event Date	General Description of Unusual or Emergency Event	Emergency Level	Activated By	Summary of Actions Taken and Event Progression	Other Notes

EMERGENCY ACTION PLAN DATA BOOK
Dam Name (MT-0000) - Dam Owner Name

Training Log

Event Date	Type of Training	Participants	Description of Training / Information Covered	Summary of Any Identified Opportunities for Improvement	Incorporated Into EAP? (Y/N)

Data Book

EMERGENCY ACTION PLAN DATA BOOK

Dam Name (MT-0000) - Dam Owner Name

Emergency Contacts List

Type	Organization/Role	Contact Name	Primary Phone Number	Backup Phone Number	Address	Email Address	Resources and Services Provided / Other Information	EAP Copy Holder? (Y/N

	Incident Commander (Sheriff's Office) Contact List – Potential Failure Event			
Priority	*Organization/Role*	*Contact Name*	*Primary Phone*	*Backup Phone*
1	County Emergency Manager			
2	National Weather Service			
3	Local First Responder/Dispatch 1			
4	Local First Responder/Dispatch 2			

	Dam Owner's Representative Contact List – Potential Failure Event			
Priority	*Organization/Role*	*Contact Name*	*Primary Phone*	*Backup Phone*
1	Dam Owner's Technical Representative / Engineer			
2	Incident Commander (Sheriff's Office)			
3	Montana DNRC Dam Safety Representative			

Data Book

EMERGENCY ACTION PLAN DATA BOOK

Dam Name (MT-0000) - Dam Owner Name

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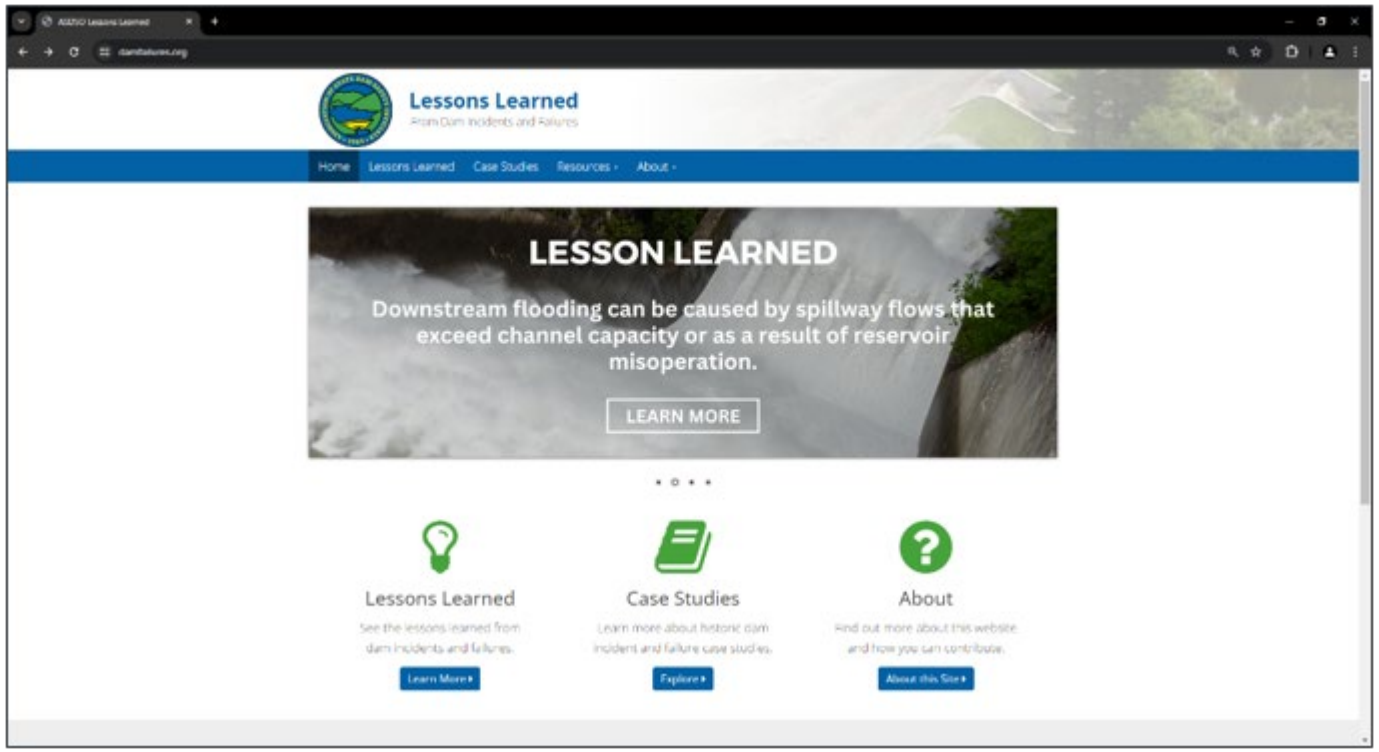
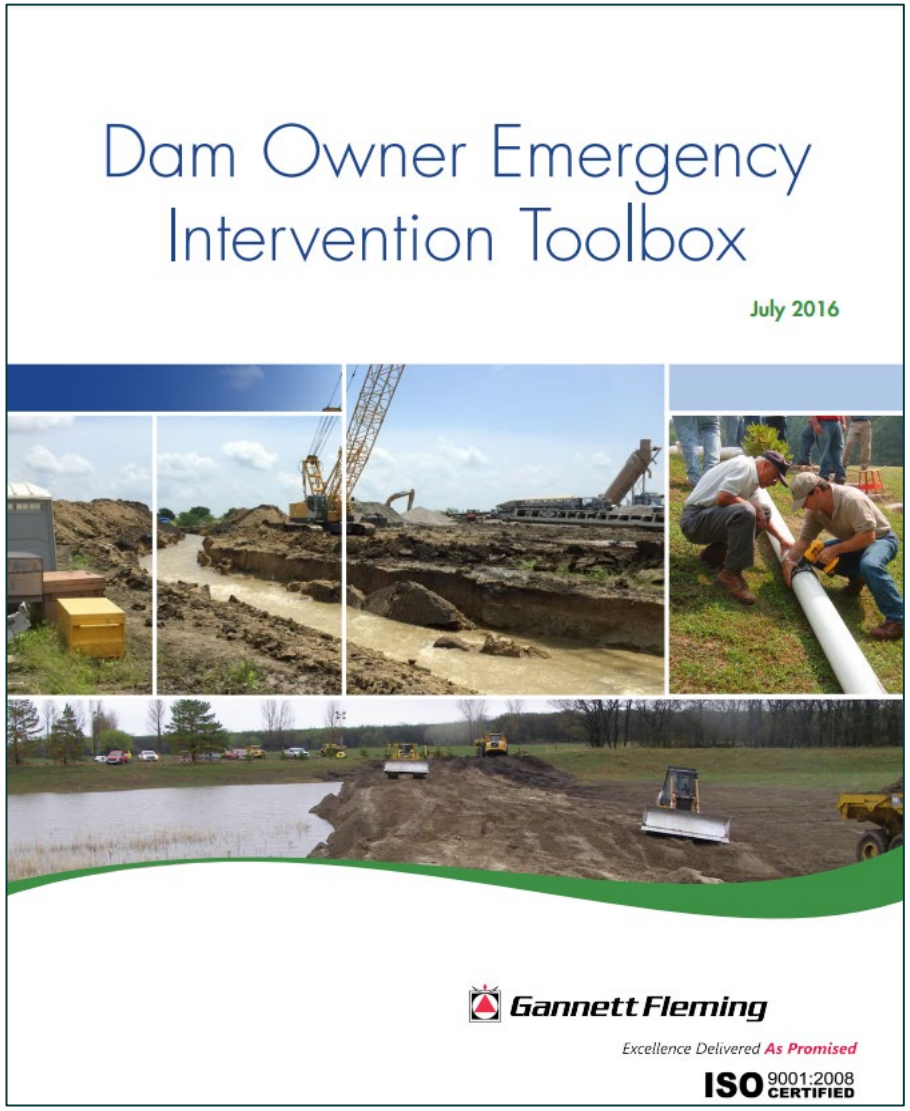
Additional Resources

- Association of State Dam Safety Officials
  - damfailures.org
    - Lessons Learned
    - Case Studies
    - Examples of PFMs
  - damtoolbox.org
    - Fundamentals of Dams
    - Dam Safety Management
    - Technical Topics
    - Resources



Additional Resources

- Dam Owner Emergency Intervention Toolbox
  - Forms
  - Calculators
  - Preventative Measures
  - Best Practices
  - Resources



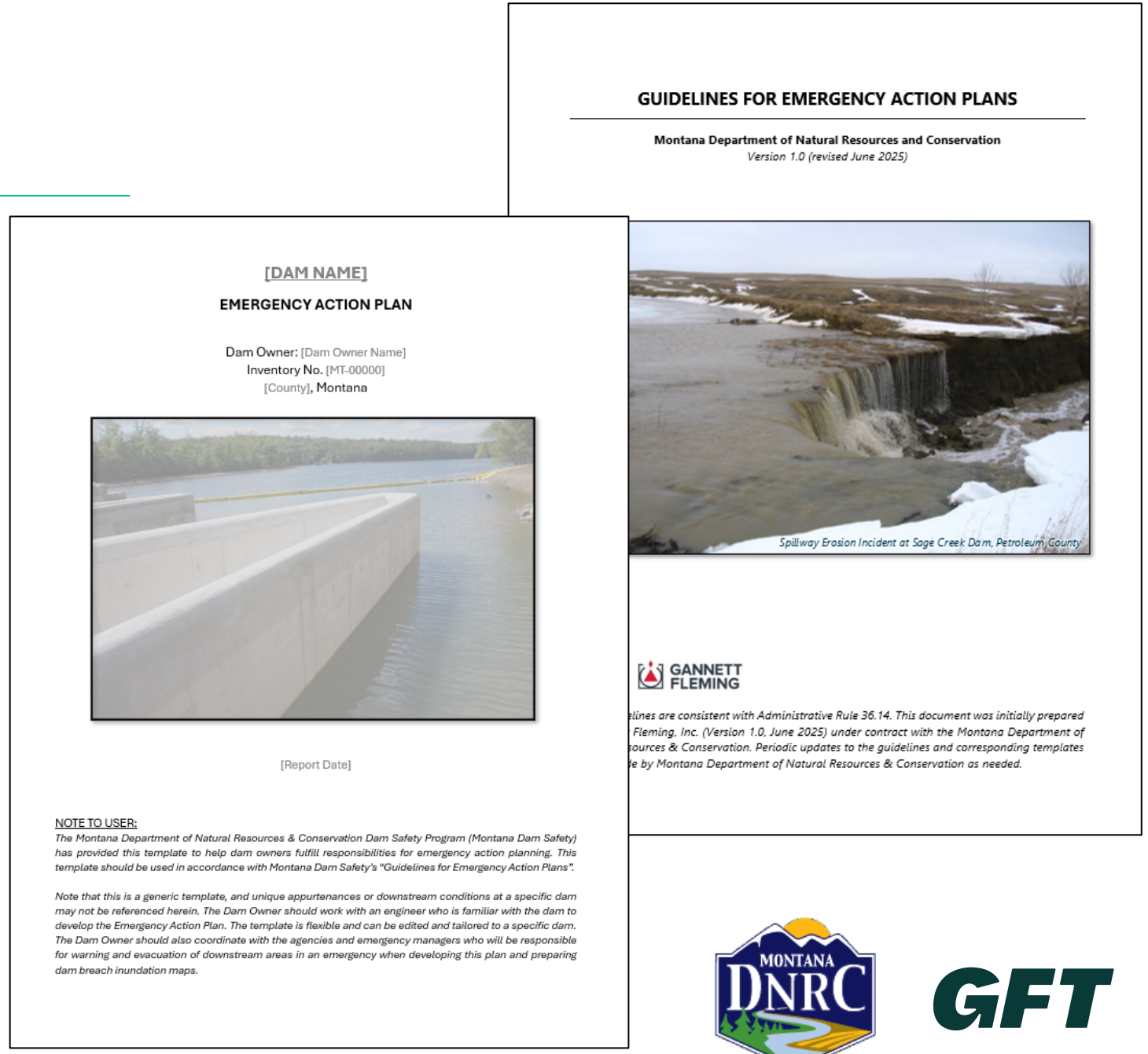
What's Next?

Ingenuity That Shapes Lives™

Rollout of Modernized EAPs

- Dam owners working 1:1 with their engineers to update existing EAPs using the new templates and guidance

- Funded by FEMA State Assistance grant – Bipartisan Infrastructure Law



GUIDELINES FOR EMERGENCY ACTION PLANS

Montana Department of Natural Resources and Conservation
Version 1.0 (revised June 2025)

Spillway Erosion Incident at Sage Creek Dam, Petroleum County

GANNETT FLEMING

elines are consistent with Administrative Rule 36.14. This document was initially prepared
Fleming, Inc. (Version 1.0, June 2025) under contract with the Montana Department of
sources & Conservation. Periodic updates to the guidelines and corresponding templates
e by Montana Department of Natural Resources & Conservation as needed.

[DAM NAME]

EMERGENCY ACTION PLAN

Dam Owner: [Dam Owner Name]
Inventory No. [MT-00000]
[County], Montana

[Report Date]

NOTE TO USER:
The Montana Department of Natural Resources & Conservation Dam Safety Program (Montana Dam Safety) has provided this template to help dam owners fulfill responsibilities for emergency action planning. This template should be used in accordance with Montana Dam Safety's "Guidelines for Emergency Action Plans".

Note that this is a generic template, and unique appurtenances or downstream conditions at a specific dam may not be referenced herein. The Dam Owner should work with an engineer who is familiar with the dam to develop the Emergency Action Plan. The template is flexible and can be edited and tailored to a specific dam. The Dam Owner should also coordinate with the agencies and emergency managers who will be responsible for warning and evacuation of downstream areas in an emergency when developing this plan and preparing dam breach inundation maps.

MONTANA DNRC

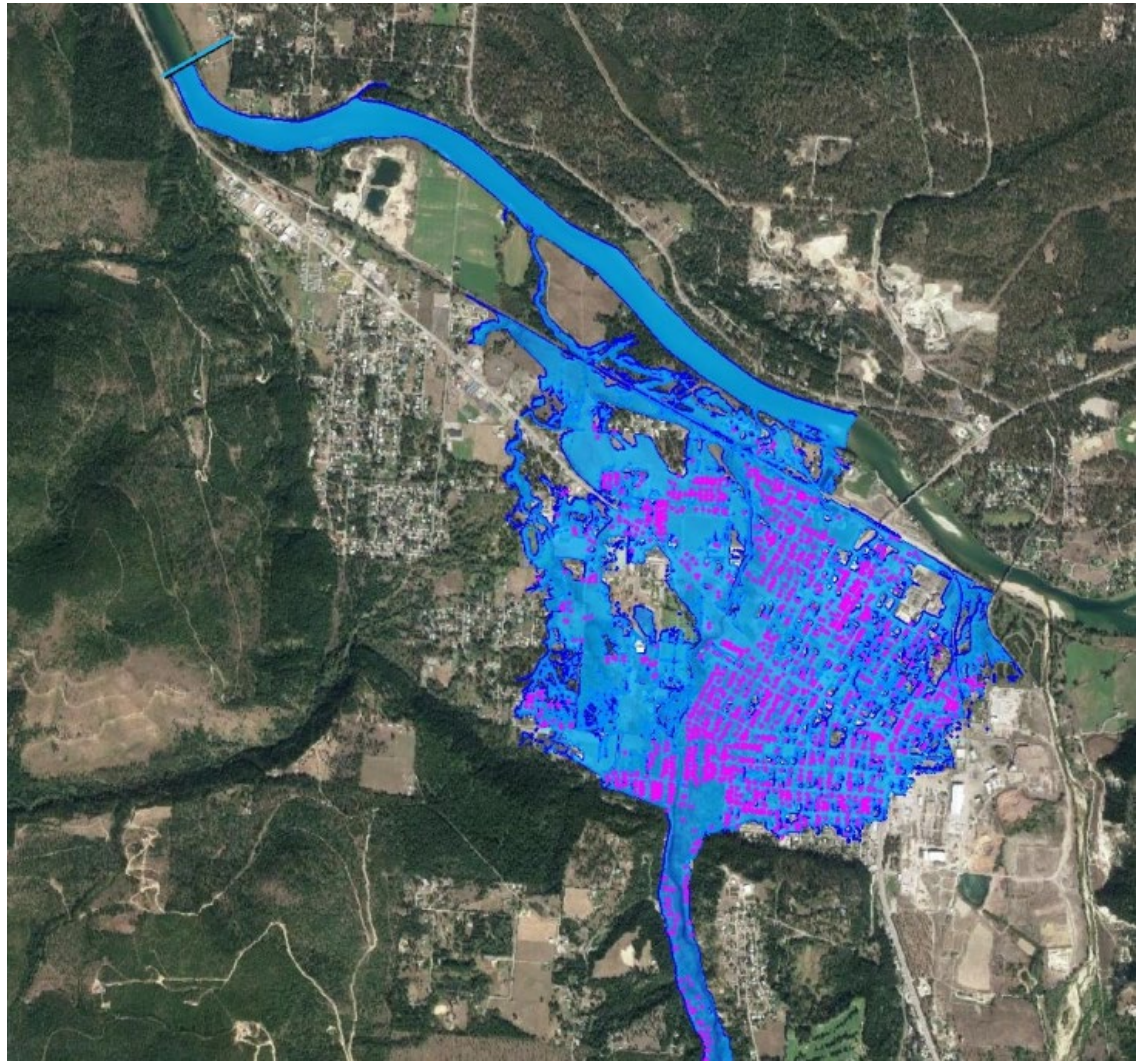
GFT

We Want These EAPs to Work for Montana

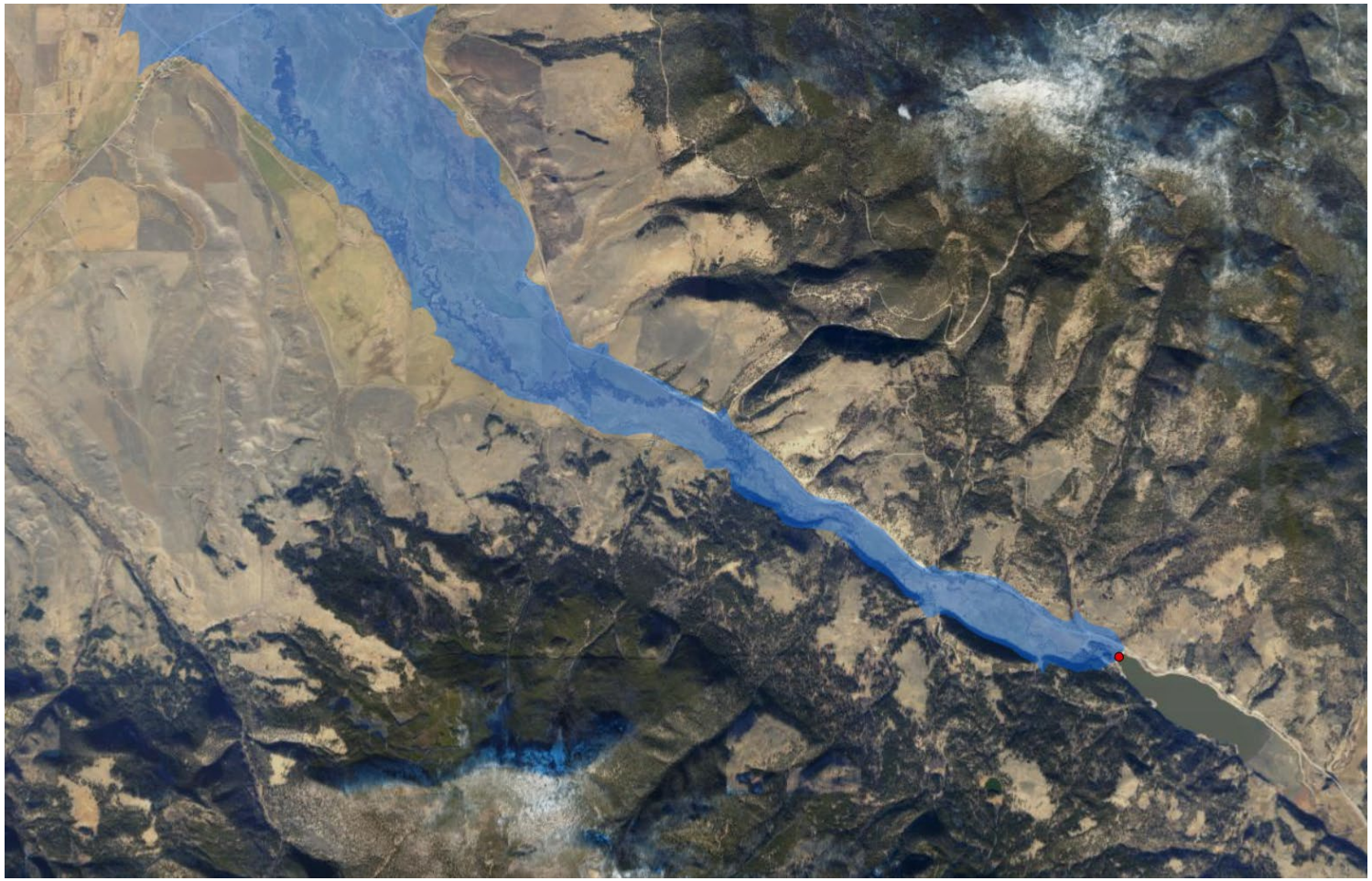
- What should we consider in this rollout?
- Training workshop?
- Contracting ideas?
- How do we involve state and local emergency managers?

Prioritizing Level of Effort

- Limited funding, so dams will be prioritized
- What level of effort to completely update…
  - an EAP?
  - an inundation map?
- April 2027



NID to Host Montana Inundation Maps



We Want to Hear from You!

- Provide feedback via this poll

https://forms.office.com/g/7cR7HYeNyn

Questions?

Ingenuity That Shapes Lives™