



PROUD SPONSOR

Lessons Learned from EAP Development and TTX Facilitation

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Outline

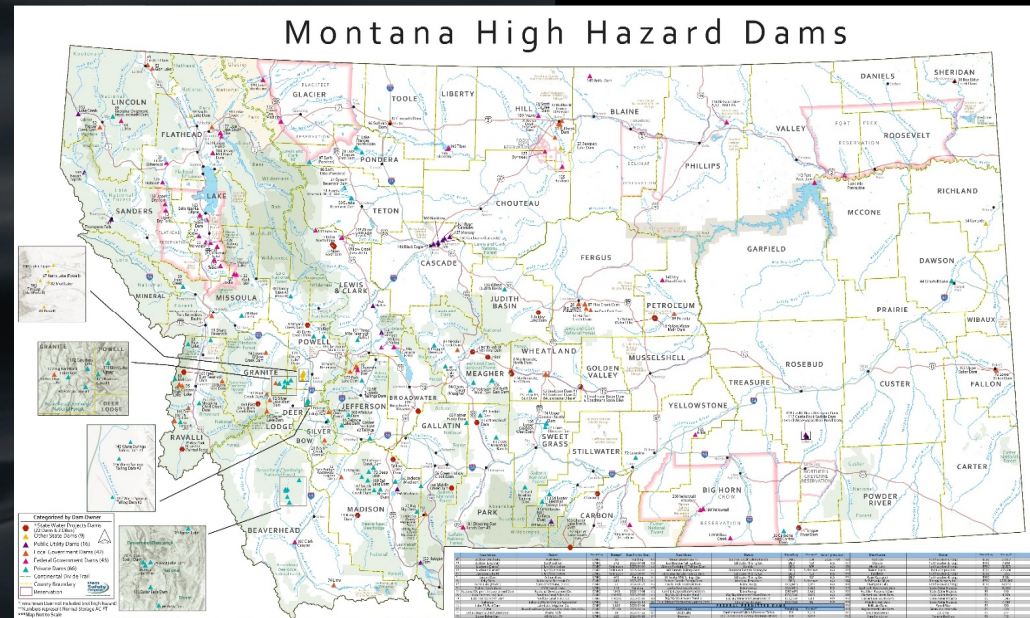
- **Montana Requirements**
- **EAP Key Features**
 - Essential information
 - Response Process
- **Tabletop Exercises**
 - Planning and Critical Attendees
- **Summary of Lessons Learned**





Montana Requirements

- **MCA 85-15-212(1)(c)**
 - Reservoir operation procedure
 - Maintenance procedure
 - Emergency procedure and warning plan
- **ARM 36.14.406**
 - Operation Plan





EAP Key Features

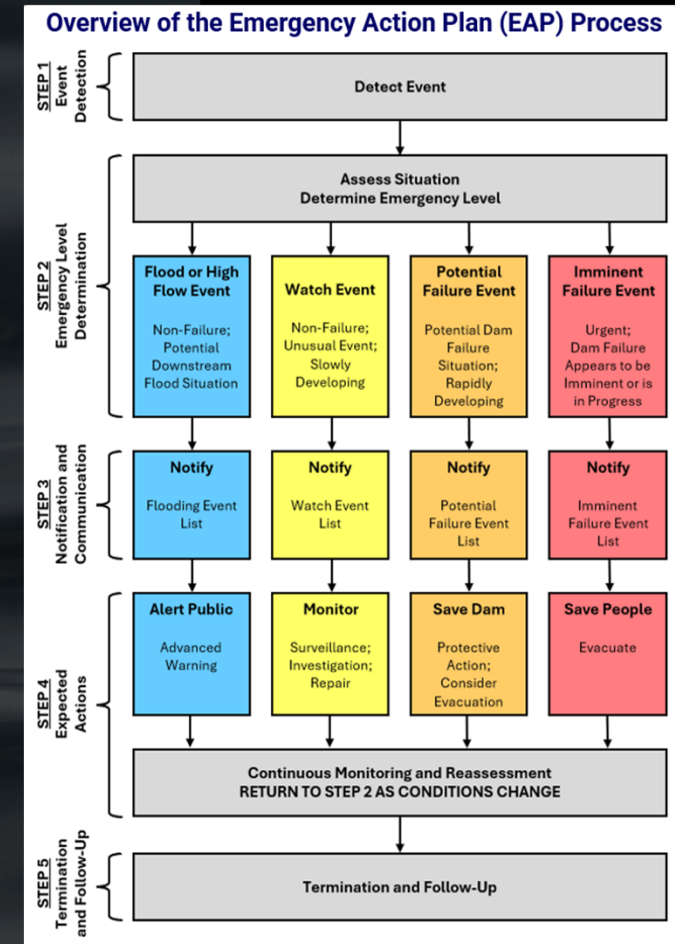
- **Essential Information**
- **EAP Response Process**
 - Incident Detection
 - Notification and Communication
 - Emergency Actions
 - Termination and Follow up
- **Preparedness**





EAP Response Process

- Incident Detection, Evaluation, and Emergency Level Determination



Source: Montana DNRC EAP Template (2026)



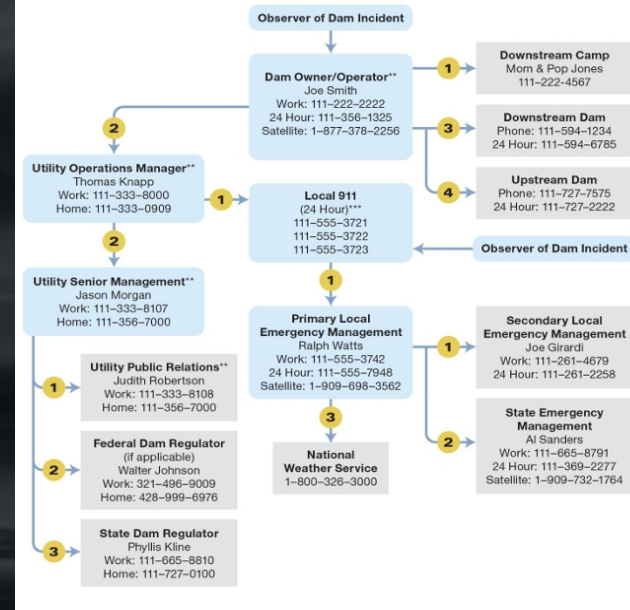
EAP Response Process

- Notification and Communication
 - f (Emergency Level Determination)
 - Call Prioritization
 - Critical Contacts



Appendix C: Example Notification Flowchart

Appendix C Example Notification Flowchart*



= call sequence

* Use this chart in coordination with Notification Contact Table for additional contact information.

** Utility personnel should refer to EAP for sample warning messages.

*** Call Dam Operator if 911 is notified by non-utility observer.

Figure C-1. Example Notification Flowchart



EAP Response Process

- Emergency Actions
- Termination and Follow up



Dam Owner Emergency Intervention Toolbox

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Helena, MT 59620



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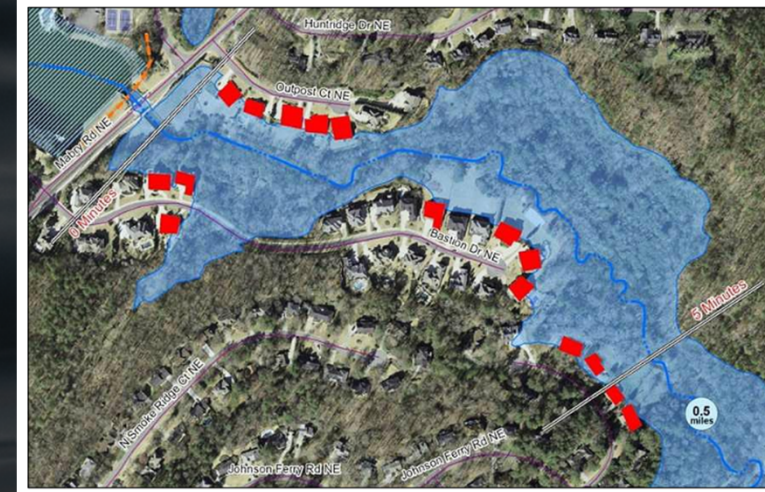


Source: [Dam-Owner-Emergency-Intervention-Toolbox-20161.pdf](#)



Inundation Maps

- Critical Information
- Hydraulic Modeling and Map Development



Source: FEMA - [Federal Guidelines for Dam Safety](#)

Supernatant pond present or pond release possible during breach	Potential for tailings runoff as a result of flow liquefaction ¹	
	Yes	No
Yes	Case 1A — Liquefiable Tailings with a Supernatant Pond: Dam breach with flow of fluids, eroded tailings, and liquefied flowable tailings 	Case 1B — Non-Liquefiable Tailings with a Supernatant Pond: Dam breach with flow of fluids and eroded tailings, and tailings slumping due to retrogression of the unsupported tailings
No	Case 2A — Liquefiable Tailings without a Supernatant Pond: Dam breach with liquefied flowable tailings only 	Case 2B — Non-Liquefiable Tailings without a Supernatant Pond: Slumping failure, or flow slide resulting from a slope failure

Legend: Liquefiable Tailings (red), Non-Liquefiable Tailings (green), Supernatant Pond (Water, Fluid Tailings, etc.) (blue), Tailings Dam (tan)

Source: CDA – Technical Bulletin (V8.01)

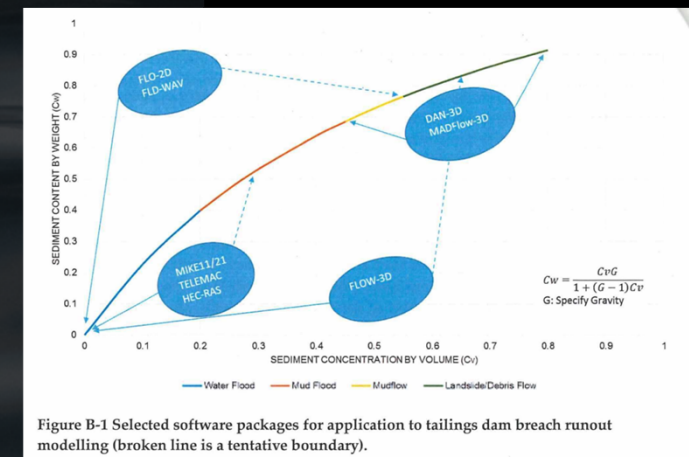


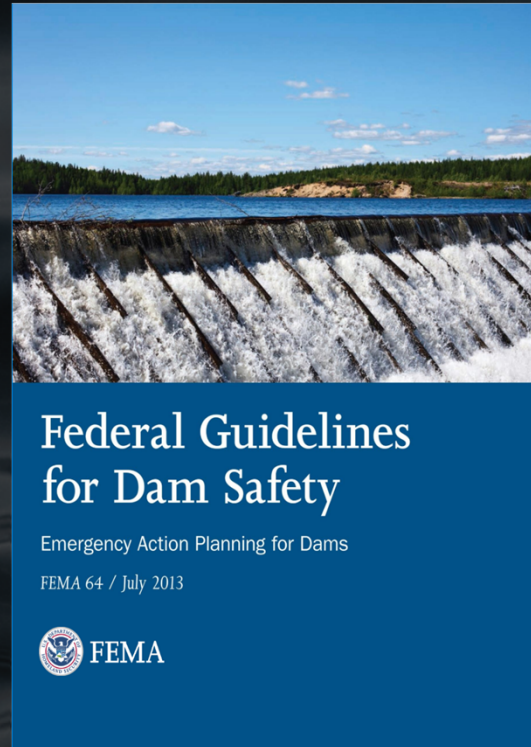
Figure B-1 Selected software packages for application to tailings dam breach runoff modelling (broken line is a tentative boundary).

Source: CDA – Technical Bulletin (V8.01)



EAP Templates

- FEMA
- DNRC
- State Regulatory Agencies



Source: FEMA - [Federal Guidelines for Dam Safety](#)

[DAM NAME]

EMERGENCY ACTION PLAN

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

SAMPLE IMAGE

[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 their statutory 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 reflected herein. The dam owner should work with an engineer who is familiar with dam safety concepts to develop the Emergency Action Plan. The template is flexible and can be edited and tailored to a specific dam. The dam owner must also coordinate with the agencies and emergency managers who will be responsible for issuing warning and coordinating traffic control and evacuations in an emergency when developing this plan and preparing dam breach inundation maps.

Source: Montana DNRC EAP Template (2026)



Tabletop Exercises

- Identify Critical Attendees
- Schedule TTX (in-person)
- Identify Facilitator & Notetaker
- Confirm Roles and Responsibilities
- Confirm Communication Protocols
- Conduct Mock Exercise
- Distribute Report/Minutes
- Modify EAP Accordingly



Source: FEMA - [Federal Guidelines for Dam Safety](#)



Summary

- **Allow for Engineering Judgement in Emergency Level Determinations**
- **Ensure NWS Inclusion**
- **Include Critical Flood Severity Information on Inundation Maps**
- **Utilize Appropriate DBA Programs for Inundation Mapping**
- **Ensure Critical Attendees are Present at all TTX**
- **Coordinate with International Emergency Response Agencies Early**



Source:

Source:

The image features a dark, textured background with wavy, liquid-like patterns in shades of black and dark grey. In the top left corner, the letters 'HDR' are displayed in a white, bold, sans-serif font. A large, identical 'HDR' logo is centered in the middle of the frame. A solid grey vertical bar runs along the right edge of the image, and a thin red horizontal bar is at the bottom.

HDR

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