



Dam Risks and Consequences / Lessons Learned

This group of sessions provides the basis for developing effective plans. Specifically, it offers the frameworks and tools required to conduct a comprehensive analysis of dam hazards and increase collaboration and coordination. It also provides the opportunity to ensure that the appropriate stakeholders are included in the planning effort. FEMA works collaboratively with communities to set their own goals and objectives. Below are common session outlines and results.

Community Analysis and Infrastructure Dependencies and Interdependencies

Participants will learn how to consider infrastructure dependencies in the context of dam-related emergencies. In addition, participants will be introduced to datasets (such as OpenHIFLD) and methodologies that will support analytic and planning activities. Participants will also be encouraged to develop scenarios using the Threat and Hazard Identification and Risk Assessment (THIRA) process.

- **Format:** Online or in-person
- **Results:**
 - ✔ Participants will be able to use appropriate methodologies and datasets to conduct analysis regarding the consequences of dam emergencies. Participants will also be introduced to the types of stakeholder groups that should be considered in this planning effort.



Considering Risk Analysis for Dams / Modeling and Simulation / Analyzing and Briefing Information

Participants will be able to share lessons learned from their initial community analysis efforts and facilitators will be on hand to answer questions and provide tips on continuing this process. A guest speaker will provide a short discussion on considering risk analysis for dams—highlighting some good approaches and, most importantly, describing when to stop focusing on risk and move onto planning. A demonstration of the Decision Support System for Water Infrastructure Security (DSS-WISE), CCHE2D-flood and breach, and other modeling tools will also be provided (if needed).

- **Format:** Online
- **Results:**
 - ✔ Participants will create an Information Analysis Brief (IAB) to capture the research and analysis that can be used to foster understanding among stakeholders, inform the planning process, obtain senior leader buy-in, and help identify priorities, goals, and objectives.
 - ✔ Following this session, participants will understand and be able to apply dam-related risk analysis principles to their research, analysis, and planning efforts.
 - ✔ Following this session (or shortly thereafter) participants will be able to effectively use DSS-WISE (if needed).

Dam Safety is a Shared Responsibility

We must build a culture of preparedness. Emergency planning addresses potential or actual dam failure events and flood risks associated with dam operations. But who has a role in dam risk management? It is a responsibility that can be shared by stakeholders such as:

- Federal Partners
- Emergency Managers
- State & Local partners
- Tribal Partners
- Public Partners
- Dam Owners & Operators
- National Organizations
- International Partnerships



Risk Assessment and Lessons Learned

Prior to this session, participants should have completed a community profile analysis, a risk assessment, and initial simulations. Participants should also have developed an IAB to foster understanding among all stakeholders. Here, each community will present its initial IAB and lessons learned from their community analysis and risk assessment, and participants and facilitators will provide feedback.

- **Format:** Online
- **Result:**
 - ✔ Following this session, participants will be ready to conduct outreach to stakeholders that may be impacted by dam emergencies in their area. Prior to outreach, recommend the jurisdiction forward the IAB to support its engagement.

Actions Taken at a Dam: Dam Owner/Operator Best Practices

This session will provide participants with an overview and understanding of the importance of regular operation and maintenance, emergency action planning, as well as thorough and consistent inspection throughout the lifetime of a dam. As part of this process, participants will also walk through the Dam Owner Emergency Intervention Toolkit to assist in preparing for, identifying, and responding to emergency conditions at dams. Specifically, participants will learn how to consider the following as part of their dam operations and planning efforts: Inspections; Operations & Maintenance Planning; Emergency Action/Operations Planning; Triggers and Activation; Rehabilitation Projects; and Modeling and Inundation Mapping.

- **Format:** Online
- **Results:**
 - ✔ An understanding of the importance of defined operation and maintenance and emergency action planning in preparation of refining their draft EAP and draft dam incident annex to the Emergency Operation Plan (EOP) in the *Refinement of Emergency Action Plans to Inform Local Emergency Operation Plans and Dam Incident Annexes* Session.