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Emergency Management



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Mission Statement

This *Water Operations and Maintenance Bulletin* is published quarterly through the Asset Management Division of the Dam Safety and Infrastructure Directorate. It serves as a medium to connect personnel who operate and maintain Bureau of Reclamation water supply systems.

History

The *Water Operations and Maintenance Bulletin* has been published quarterly since 1952. Past issues may be read and downloaded at [Water Operations and Maintenance Bulletins](#), where you can also search the entire *Bulletin* database by subject.

Contact

We welcome suggestions for future issue topics, contributing authors, and comments on the *Bulletin*. Please direct all inquiries to drowateroandm@usbr.gov.

Cover photo: Agriculture site in San Luis, Arizona, visited by Bureau of Reclamation leadership in January 2023.

Editor's Note

The operations and maintenance of facilities require water system managers to work around the calendar (and clock) to assess and address conditions, train staff in standard operating procedures, and monitor the reliable storage and release of water. Amidst these daily demands, preparing for and managing emergency operations are essential to the safety of the public and continued functioning of essential facilities. Accordingly, in this winter *Bulletin*, we're focusing on multiple elements of emergency management.

Amy Darlinton, from the Missouri Basin Region's Facility Operation Services, wrote on "Emergency Type and Level Categorization." We received two articles from the Mission Assurance and Protection Organization's Emergency Management and Readiness Office: Benjamin Claggett authored "Enhancing Emergency Action Plans: an Overview of EMG 02-01 Updates," while Allison Cryns provided an overview and recent examples of "Disaster Support and Deployment." The Asset Management Division's Carlos Aragon contributed "Seasonal Documentation: Review and Update," a guide to work to be done during winter's low- or no-flow periods before spring brings increased activity. For our Q&A, Suzanne Henderson, Emergency Management Program Coordinator for the Columbia-Pacific Northwest (CPN) Region, spoke with us about overseeing CPN's emergency operations, the necessity of good communication, and opportunities for growth within the Bureau of Reclamation (Reclamation).

This issue came together through much collaboration across multiple offices and regions. Many thanks to our incredible contributors and, of course, you for reading! Happy New Year!

Darion Mayhorn, P.E.
Supervisor, Operations and Maintenance
Asset Management Division

Andrew Daigle, Ph.D.
Writer-Editor
Dam Safety and Infrastructure

Around O&M

Enterprise Asset Registry

The Trails Asset Class regional review is occurring October 30, 2023, through January 26, 2024. The regional review for the Pumping Plants, Transmission, and Lands Asset Classes are still on-going with some remaining assets that need to be reviewed. The Buildings, Prestressed Concrete Cylinder Pipe, and Water Treatment asset classes are in development and will be released in Fiscal Year (FY) 2024.

FY 2024 Building Condition Assessment Contract

The FY 2024 Building Condition Assessment Contract kicked off on November 15, 2023. Contractor building condition assessment site visits are planned to begin in the Lower Colorado Basin Region on December 4, 2023. In total, the contractor will be performing condition assessments for 250 buildings across Reclamation, accounting for 50 buildings per region.

Transportation Funding

The FY 2025-2027 Transportation Call for Projects is open November 16, 2023, through January 26, 2024, with \$15 million in funding available. All Reclamation-owned transportation assets open to the public are eligible for funding including reserved works, transferred works, and managing partner assets.



Completed Rio Chama Trail Bridge, Chama, New Mexico, a Federal Lands Transportation Program-funded project completed in summer 2022.

Solar Over Canals Project Approval Announced

Section 50232 of the Inflation Reduction Act appropriated \$25 million for the design, study, and implementation of projects to cover canals associated with a Reclamation project with solar panels. On December 8, 2023, Commissioner Camille Calimlim Touton announced approval for funding a project with the Gila River Indian Community to construct canal-spanning solar over approximately 2,782 linear feet of the Casa Blanca Canal. Additional project approvals are expected to be announced soon.

Emergency Type and Level Categorization

Amy Darlinton, P.E.

Regional Dam Safety Coordinator, Facility Operation Services, Missouri Basin and Arkansas-Rio Grande-Texas Gulf Region

Consistent emergency communication and incident classification is critical in successful emergency management at the Bureau of Reclamation’s (Reclamation) high hazard potential dams. To achieve consistent communication, Reclamation has adopted a two-pronged approach to classifying the type and severity of emergency incidents at dams and urban canals.

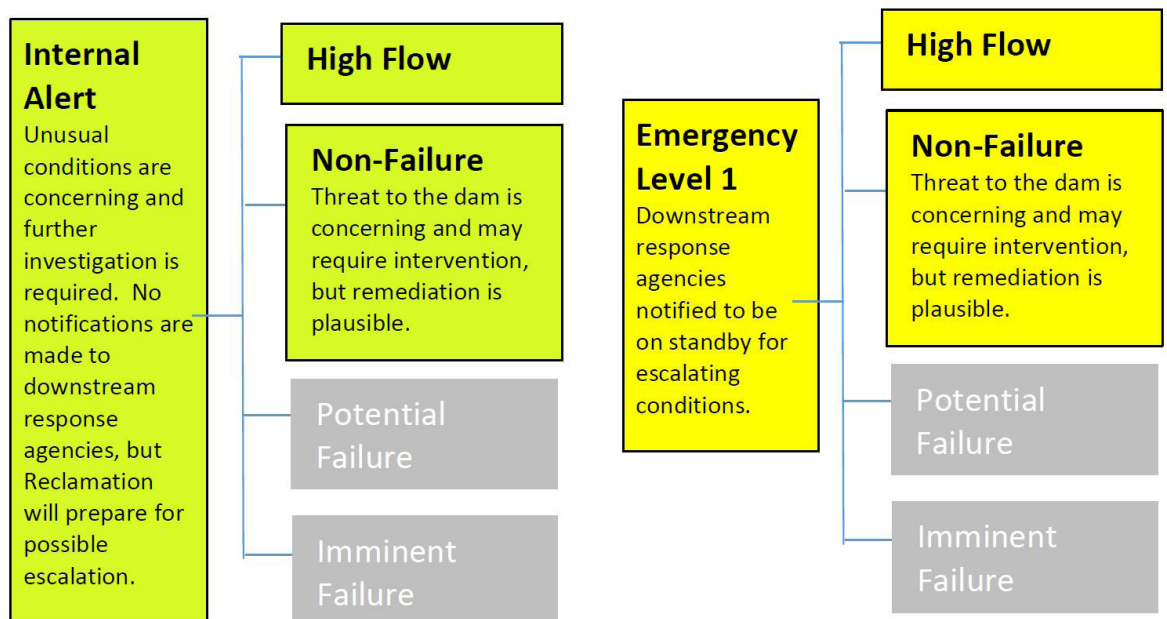
Emergency Incident Type Categorization

Reclamation recently adopted a descriptor component to classify emergency incident types. This designation complies with the Federal Emergency Management Agency’s Emergency Action Planning for Dams document, which provides guidance to dam owners for a consistent nationwide approach. The common language used to classify emergency type aims to reduce misunderstanding of

an emergency’s severity. Emergency incident types are classified as High Flow events when releases may result in flooding to downstream areas. When structural issues occur at a dam that compromise the safety and stability of the dam, the incident type will be classified as Non-Failure, Potential Failure, or Imminent Failure depending on the level of concern. Structural incident types are classified as: Non-Failure if technical experts deem the event to have no downstream impacts and/or remediation is plausible, Potential Failure incidents if extraordinary intervention is required and where likelihood of remediation is uncertain, or Imminent Failure emergencies if the issue is so severe that remediation is not plausible.

High Flow incidents typically result in lesser downstream consequences than structural incidents that may ultimately result in dam failure.

The two-pronged incident type and emergency level categorization method, as standardized by EMG 02-01 and as adapted from Reclamation EAPs. The graphic illustrates potential combinations of emergency types and levels.



Releases to alleviate flooding will result in a controlled release at a set flowrate for a sustained period causing downstream flooding. Structural issues, on the other hand, such as internal erosion, sliding, or overtopping, may cause the dam to fail, leading to an uncontrolled release of the reservoir. An uncontrolled reservoir release resulting from dam failure may result in much larger and faster flows, as well as severe life loss.

Structural incident classifications are correlated to the plausible failure modes at each individual facility. Dam safety professionals detail the risk of the specific progression of events and time to progression leading to a potential dam failure. This can provide important insight in developing initiating conditions or triggers for each classification. Physical indicators of events, such as the severity of earthquake shaking, cracking, sink holes, whirlpools, and increased seepage, are correlated with potential failure mode events and included in the Emergency Level Matrix within the Emergency Action Plan (EAP).

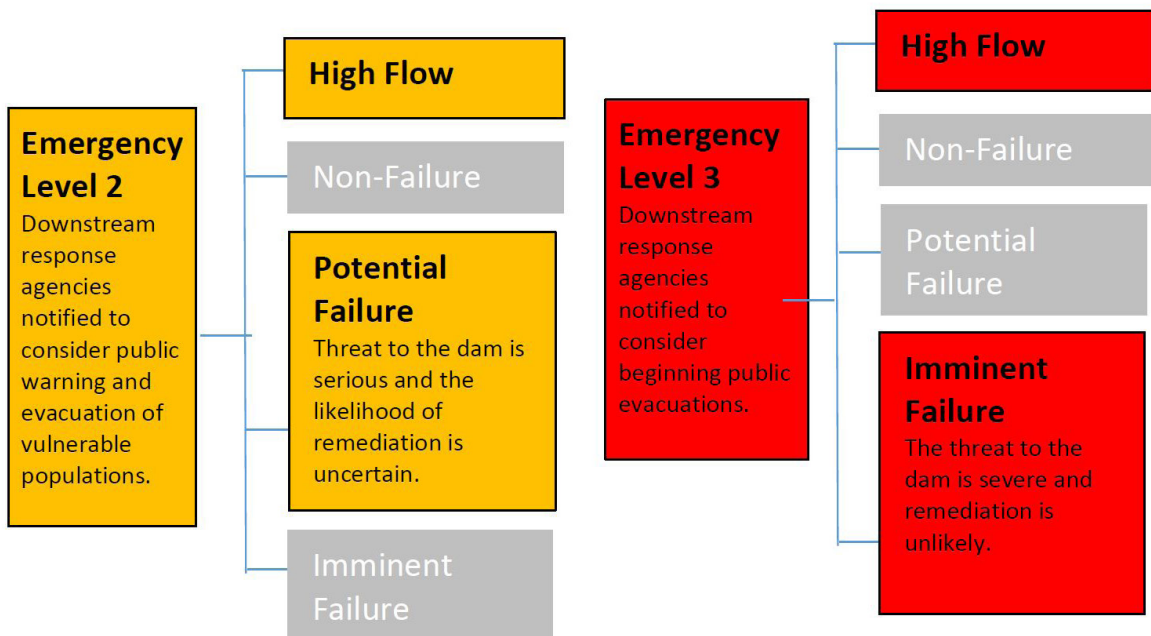
Emergency Level Categorization

Assigning a numerical emergency level gives Reclamation and external stakeholders common insight into the severity and potential consequences of an emergency incident. It is also coupled with

expected actions, required notifications, and scripted messages for Reclamation personnel. The severity of the emergency is described as an Emergency Level 1 through 3, or as an Internal Alert for the least severe of incidents not requiring notification to external agencies. Emergency Level 1 is considered an event severe enough to notify communities to be on standby for escalating conditions. Emergency Level 2 corresponds to an incident that necessitates public safety agencies to consider public warning. And Emergency Level 3 corresponds to an emergency that necessitates public safety agencies to evacuate the public.

Reclamation began updating all EAPs in 2020 with the new emergency level and emergency type categorization. The work is scheduled to be complete in 2025. This will ensure emergency level classifications are used consistently throughout the agency to avoid confusion, streamline emergency communications, and execute emergency response actions. As situations escalate and responses become more critical, consistent use of emergency levels becomes imperative to executing the right emergency responses.

Clear communication involves more than just the emergency level and type when communicating incidents externally. Since emergency levels and





Aerial view of high flow releases out of Buffalo Bill Dam in Wyoming in June 2023. No structural incidents were reported.

their definitions are unique to Reclamation, other dam owners, notably those within the same watershed, may also utilize emergency levels, but their definitions and classifications may differ significantly.

For example, if Reclamation were to issue an Emergency Level 1 for a non-failure incident at a dam, a state agency within the same watershed may issue an Emergency Level 3 for a similar non-failure incident at their dam, which may result in communication of very different messages to downstream response agencies and – without further clarification – improper evacuation notices (or lack thereof) to downstream populations. Clear indication of the emergency type within emergency notifications, as well as concise EAPs that clearly identify incident communication methods, may minimize emergency level misunderstandings. In addition, orientations and exercises prior to incidents will familiarize emergency response agencies with emergency level definitions and identify any inconsistencies in definitions so that misunderstandings can be mitigated prior to an incident.



Aerial view of spillway flows at Willow Creek Dam in Montana. Flows over the earthen, uncontrolled spillway resulted in erosion and activation of the EAP.

Use of concise and consistent communications both within Reclamation and with downstream response agencies will streamline emergency responses and may ultimately result in reducing property damage and saving lives.

Enhancing Emergency Action Plans: an Overview of EMG 02-01 Updates

Ben Claggett, P.E.

Emergency Action Planning Program Manager, Emergency Management and Readiness Office, Mission Assurance and Protection Organization

Introduction

In 2020, the Bureau of Reclamation (Reclamation) implemented significant updates to [EMG 02-01, Emergency Management Program for Water Impoundment Structures](#). This Directive and Standard (D&S) governs emergency management planning for dams and, notably, underwent changes aimed at refining Emergency Action Plans (EAPs). The following provides a detailed overview of these changes, with a specific focus on the standardized purpose and scope statements introduced for EAPs.

Key Changes in 2020

Before delving into the specifics of the new purpose and scope for EAPs, below is a summary of the key changes made to EMG 02-01 in 2020:

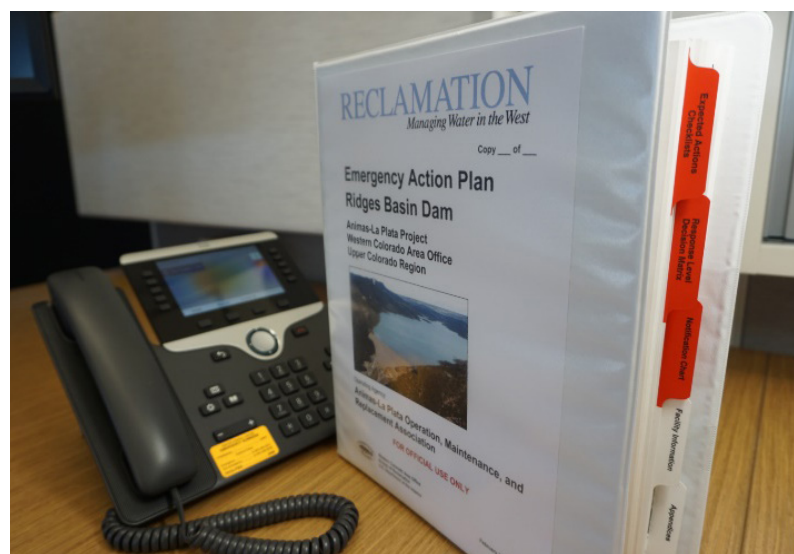
1. Expanded the D&S's scope to include "urban canals."
2. Required a consistent, standardized purpose and scope statement for every EAP.
3. Implemented a standardized format for all EAP documents within each region.
4. Clarified exercise definitions and inclusion of the "Seminar" exercise type.
5. Designated a five-year implementation period for all new requirements.

Standardized Purpose and Scope Statements

One of the most noteworthy changes in 2020 was the requirement for standardized purpose and scope statements in every EAP. This shift was driven by

two primary objectives: first, to establish uniformity across Reclamation and ensure a consistent definition of EAPs, and second, to underscore the overarching focus on public protection.

Philosophically, the updated EMG 02-01 emphasizes that the primary purpose of an EAP is to facilitate timely communication with public safety agencies responsible for evacuating populations at risk downstream of Reclamation water impoundment structures. While safeguarding the integrity of these structures remains crucial, emergency management highlights the critical balance between preventing dam failure and communicating effectively with downstream stakeholders.



EAP Binder for Ridges Basin Dam, Colorado.

The standardized purpose statement, outlined in EMG 02-01's Appendix A, articulates the core objective of an EAP: "The primary purpose of this emergency action plan (EAP) is to provide effective and timely risk communication to the public safety agencies responsible for warning and evacuation of populations at risk (PAR) downstream of Reclamation water impoundment structures to reduce potential loss of life during situations of elevated flood risk."

Furthermore, the purpose statement acknowledges secondary functions of the EAP, serving as response procedures for Reclamation and facility operations personnel, an administrative record of programmatic intent, and a reference for training and exercises.

Complementing the purpose statement, the scope statement delineates what information should be included in EAPs. It specifies three key elements: Flood Hazard Identification, Dam Owner Procedures, and Supporting Information. Additionally, the scope statement explicitly states what should not be included in EAPs, such as response procedures for occupant emergency planning, continuity of operations, hazardous materials spills, security response, or hazard-specific emergencies not impacting the potential for flood releases from the structure.

It's worth noting that canal EAPs are afforded some flexibility in crafting purpose and scope statements due to the unique characteristics of these structures.

Conclusion

1. **Risk Management and Readiness:** The Emergency Action Planning Program, as outlined in EMG 02-01, serves as a critical component of Reclamation's risk management

strategy during incidents with the potential for life-threatening flood releases. This program, through its requirements, guidance, tools, and training, fosters a culture of emergency preparedness and enables effective incident management. The ultimate goal is to achieve a readiness posture that facilitates timely notifications to downstream public safety agencies, reducing potential loss of life during elevated flood risk situations.

2. **Comprehensive Inclusion:** EAPs must encompass all conditions leading to flooding, including normal dam operations where high releases could impact downstream communities. The emphasis is not only on protecting the public but also on safeguarding infrastructure.
3. **Common Vision:** Ensuring a shared vision among all Reclamation personnel and operating partners is crucial. The primary focus of EAPs is to protect the public, with secondary objectives of protecting infrastructure, providing response procedures, serving as an administrative record, and acting as a reference for training and exercises.

The updates to EMG 02-01 reflect a commitment to enhancing emergency management planning for dams by emphasizing the importance of clear communication and coordinated response efforts to protect both lives and critical infrastructure. Through standardized purpose and scope statements, Reclamation aims to strengthen its emergency preparedness and response capabilities, contributing to a safer and more resilient water management system.

Releases from
Cascade Dam, Idaho.





Disaster Support and Deployment

Allison Cryns

Disaster Deployment Program Manager, Emergency Management and Readiness Office, Preparedness Division, Mission Assurance and Protection Organization

The Bureau of Reclamation (Reclamation) has an established and important role in disaster response and recovery. Reclamation serves as the Department of the Interior's (DOI) lead Principal Planner for [Federal Emergency Management Agency \(FEMA\) Emergency Support Function \(ESF\) #3 – Public Works and Engineering](#). As the ESF #3 lead Federal agency, the U.S. Army Corps of Engineers (USACE) tasks Reclamation with mission assignments. Reclamation manages resource ordering and qualifications prior to and during mission assignments. Reclamation may support other [ESFs](#), Federal agencies, and non-declared emergencies through staffing of various incident positions and/or equipment.

900 Departmental Manual 1 requires all DOI bureaus and offices to provide resources for disaster prevention, protection, response, and

recovery. Reclamation is specifically designated as the Principal Planner for ESF #3 – Public Works and Engineering in the DOI All-Hazards Baseline Operational Plan. Reclamation's involvement in disaster relief reflects its commitment to serving the nation and its people by assisting during crises.

Reclamation primarily deploys Quality Assurance Technical Monitors (QATMs) during ESF #3 missions. They are responsible for ensuring contractor compliance with FEMA standards for missions that focus on temporary housing, temporary roofing, and debris removal. More information on these roles and others can be found in the [Incident Position Qualification Guide](#). Other common deployment roles include law enforcement, boat operators, and cultural resource specialists.

Volunteering for deployment is a rigorous process but is important for a successful mission. DOI employees considering deployment must complete various requirements, which include:

1. Obtaining supervisory approval and completing a supervisory agreement form.
2. Obtaining internal or regional clearance for deployment.
3. Completing the necessary training and qualifications to meet all deployment position prerequisites.
4. Sharing their local office contacts for travel arrangements, credit card management/reallocation, and timekeeping.
5. Submitting all mandatory paperwork, including a medical self-certification, and agreeing to DOI Employee Rules of Conduct.

Deployment operations entail a significant time and effort commitment, with deployments spanning a minimum of 30 days. Deployed personnel are expected to maintain an extended work schedule,

working 7 days a week with 8-12 hours per day. The nature of on-the-ground experience during deployments is dynamic, with specific roles and duties contingent upon the nature of the disaster and the requested responder positions. Furthermore, with the multifaceted QATM position, work assignments may evolve as response and recovery work progresses.

The most recent example of Reclamation's deployment efforts is the 2021 ESF #3 Hurricane Ida Deployment to New Orleans, Louisiana. This operation involved a total of 40 employees, deployed in 30-day waves, from November 2021 through April 2022.

The Hurricane Ida experience was intense for deployers. Not only were they working long days, but their day-to-day experience was variable and challenging. Work required a lot of driving, sometimes for hours across the impacted region, to initially enter private property to measure and map space for potential temporary housing to be installed near the destroyed homes. They later returned for inspection of contractor-installed housing and utilities that were often delayed due to supply chain issues and were pressed by the residents



A deployer assesses and maps an area for potential temporary housing installation (Louisiana, 2021).



A deployer assesses a damaged home and maps an area nearby for temporary housing (Louisiana, 2021).

seeking secure and accessible housing. Deployers had to navigate disaster areas that were deserted or unwelcoming, with debris on the road, heavy traffic, flat tires, and occasional incidents of vandalism.

Deployers found themselves in situations where conflict de-escalation was required, representing the government in circumstances where locals might be frustrated or hostile. A deployment is not a vacation. Disaster deployment demands that volunteers are able and willing to leave the comforts and familiarity of home and normal work, adjust to an uncomfortable work environment, and help disaster victims who are struggling with unmet basic needs. Yet, deployment work is a very fulfilling and purposeful experience, as well as a great résumé builder and way to earn extra pay.

For Reclamation employees interested in learning more about disaster deployment, program contact information and the latest updates can be found at [Disaster Deployment](#). To learn more about qualifying and volunteering to deploy, visit [Disaster Deployment - Training](#).



USACE and Reclamation deployers assess a hurricane-impacted property and measure the area for installation of temporary housing (Louisiana, 2021).

Seasonal Documentation: Review and Update

Carlos Aragon, P.E.

Civil Engineer, Asset Management Division, Dam Safety and Infrastructure

As the days get shorter, winter provides a time for reflection and rejuvenation. Though some activities may come to a halt due to harsh weather and holiday leave, it is important to prepare for the inevitable increase in activity that occurs each spring. The reduction or completion of water deliveries for the season provides an opportunity to evaluate and perform maintenance on features that are otherwise inaccessible most of the year such as canals, tunnels, and dam outlet works. Other important tasks to

consider getting a head start on during the colder months are reviewing documentation for accuracy and performing updates where necessary. Emergency Actions Plans (EAPs), Standing Operating Procedures (SOPs), the Bureau of Reclamation's (Reclamation) Capital Asset and Resource Management Application (CARMA), and operations and maintenance (O&M) recommendations can all benefit from a winter review or update.



Bypassing water during Blue Mesa Powerplant (Colorado) outage in 2022.

Emergency Actions Plans

EMG 02-01, *Emergency Management Program for Water Impoundment Structures*, requires EAPs to be reviewed and updated annually. “The applicable personnel will review EAPs at least annually and updated as needed to ensure adequacy of procedures, accuracy of notification information, and incorporate recent lessons learned from exercises or incidents.”

EAPs will include the following essential elements that should all be part of the annual review:

- Purpose and scope statement
- Roles and responsibilities
- Response process
- Position- or office-specific response checklists
- Emergency level classification system
- Notification chart(s) and protocol
- Primary and backup communications systems information
- Facility-specific conditions and potential failure modes
- Preparedness and facility information
- Inundation maps (dam EAPs only)

Some low hanging fruit that can be accomplished during the winter include verifying that the contact information in the notification charts and communications directory is accurate and that the most recent inundation maps have been inserted. Remember that state, local, and tribal elections often occur in either November or December and may result in changes to the points of contact in the communications directory.

Contact the regional emergency management coordinator and verify the schedules for any exercises that may be planned for the next year. Early coordination and scheduling are key to a successful exercise. Area offices and facilities should plan for a minimum of three months of preparation for a tabletop exercise and should plan six months ahead of a functional exercise. Regular review and updates to an EAP will reduce the effort required to prepare for an exercise.

Standing Operating Procedures

SOPs for high or significant hazard potential dams should be reviewed for consistency with the most recent Area Office Annual Dam Safety Report, Annual Site Inspection, Periodic Facility Review, or Comprehensive Review. For canals, check to see if any recommendations from the last annual review resulted in changes to the SOP.

It is unlikely that there will be significant changes to the SOP unless a modification of the facility has occurred. However, changes to the following items may occur without a noticeable physical modification:

- Inspection frequencies
- O&M procedures
- Performance monitoring instrumentation equipment or data collection frequency
- Reservoir capacity allocations – area capacity tables/curves or additional sediment accumulations
- Security features or procedures

Holding an annual walkthrough of the SOP for each facility may help discern any new questions or concerns of operating personnel that have come up during the last year.

Emergency Management Contacts

Name	Region
Benjamin Claggett	Denver
Tyler Maasjo	Missouri Basin and Arkansas-Rio Grande-Texas Gulf
Keri Stout	Upper Colorado Basin
Virginia AnnMarie T. Perez-Payumo	Lower Colorado Basin
Suzanne Henderson	Columbia-Pacific Northwest
Erica Haga	California-Great Basin

CARMA/O&M Recommendations

Reserved works facilities use CARMA to track condition assessments, maintenance schedules, and inventory management. Facilities not using CARMA may organize their facility information in another database software program such as Microsoft Excel or Access. Regardless of the maintenance management system used, taking time to verify the needs of each facility or asset is a beneficial task that can be performed when hazardous weather conditions make field work unsafe. Important items to include in an asset database are identification information (asset name, asset type, asset location, any serial numbers, and other distinguishing name plate data), type of maintenance being performed, date of maintenance, contact information of person performing maintenance, and comments.

Regularly review the list of incomplete O&M recommendations to see which can be addressed over the winter and which are best left for warmer weather. Updated report templates and new SOPs for how to troubleshoot a piece of equipment are also convenient to have.

Helpful Guidance

Emergency Management

- [EMG 02-01, *Emergency Management Program for Water Impoundment Structures*](#)
- [Emergency Management Support](#)

Standing Operating Procedures

- [FAC 02-01, *Operating Practices and Procedures for High and Significant Hazard Potential Dams \(and other facilities, as applicable\)*](#)
- [Standing Operating Procedures Guide for Dams, Reservoirs, and Power Facilities](#)
[Reclamation Intranet]
- [Water Operations and Maintenance Bulletin – Winter 2012, Issue 231: SOPs for Dams, Maintenance Practices](#)

CARMA

- [CARMA](#) [Access Required]
- [Water Operations and Maintenance Bulletin – Summer 2023, Issue 260: Review of Operation and Maintenance Workshop](#)

Best Practices

- Start early so there isn't a rush to complete many document updates at the end of the fiscal year.
- Include operating personnel in reviews and updates.
- Maintain a running list of items that should be incorporated into documents as they are encountered, so they are not forgotten over the course of the year.
- Develop or update an asset/equipment inventory to track maintenance.
- Review incomplete O&M recommendations and develop a plan to address them.



Freezing in and around hollow jet chamber of the Blue Mesa Powerplant (Colorado) bypass works during 2022 outage.



Suzanne Henderson at Hungry Horse Dam (Hungry Horse Field Office, Montana).

Q&A

Suzanne Henderson

Emergency Management Program Coordinator, Facilities Operations and Maintenance and Dam Safety, Columbia-Pacific Northwest Region

Suzanne Henderson has been overseeing the Columbia-Pacific Northwest (CPN) Region's Emergency Management Program since 2010. She is responsible for the emergency operations of 57 high and significant hazard potential Bureau of Reclamation (Reclamation) dams in CPN, and all exercising or writing of Emergency Action Plans (EAPs) in CPN goes through her. Prior to working for the region, she served as Emergency Management Program Coordinator for the Snake River Area Office for over four years. She took time from her busy schedule to talk to us about emergency management and operations, the importance of good working communication, and opportunities for growth within Reclamation.

Can you provide a high-level summary of your work before and since joining Reclamation?

Before I joined Reclamation, I was with the U.S. Air Force in a forward air control squadron. We had ground radar, and we would deploy right behind the front line. That meant that the only time we got to do our job was when we deployed. I went to Kuwait twice. I only served for four years, but during those four years, all we did when we were back in the States was exercise, exercise, exercise. And this was pre-9/11. I didn't really know what exercising was until I got into it. When I got out of the Air Force, I got in with Reclamation, and I ended up in facilities operations and maintenance (FO&M) at the Snake River Area Office. They had to do EAP exercises.



And I knew how to do an exercise. I had wonderful support from the management at Snake River. We developed into an EAP Exercise Program, which has worked into an overall all-hazards Emergency Management Program in the CPN Region.

What made you want to work for Reclamation?

With the Air Force on my background, I was looking for a Federal job. I got offered a mail and file clerk position at Reclamation. And I took it. I felt fortunate because I knew what Reclamation was. I've got two dams in my hometown that I'm very familiar with. Shasta Dam and Whiskeytown Dam are part of our culture here.

Who have been your mentors?

I think about everybody. Coleman Smith, Sharon Eroschenko, Jennifer Carrington, Lorri Gray. And other coworkers: Erika Lopez and Jamie Stansberry-Turner. They are all impressive people who have come up in Reclamation. Some started as students, some came in as something else. I watch and absorb and try to learn from all of them because this is an amazing agency. CPN allows people to grow and build their career. I'm one of those people. I started as a clerk, and I took my experience and

morphed it into what I am now. But at the same time, without having peers and our leadership, I wouldn't have known that was possible. I look at their professionalism and how they treat their coworkers, and that's what I try to emulate. In operations and maintenance (O&M), we can't seem to keep our administrative assistants because they end up rehiring for something else within the office and moving up. The growth and movement in this agency are spectacular.

How would you describe your responsibilities as Emergency Management Program Coordinator for CPN?

I started out conducting EAP exercises and updating EAPs for dams. That led to learning about the incident command system, doing exercises, downstream relationships, and then relationships with the operators and maintainers of facilities. I love my job because I get to work with so many people, and each dam brings different knowledge and challenges. With theoretically failing dams, I want to push people into the EAP and get them to use the EAP. We started to grow as an agency and realized all-hazards is what the rest of the emergency management world is looking at. To use incident

command effectively, we need to understand the all-hazards perspective. We have hazards that can affect our continuity of operations.

How has emergency management evolved in the 13 years since you became Program Coordinator?

There are a lot of changes in the agency; we don't just check off the box and show up again in four years. Sometimes you need to go a little aggressive with the scenario to push people into the symptoms that would cause an unusual event. With emergency management, you have to expect the unexpected. You look at the risks for your location, the build of the facility, all these different things. If we have a facility that's more susceptible to issues, we're upfront with our communities. We want them to understand the realistic stability of a facility. In the past year, we've conducted two interim risk reduction exercises out of normal EAP cycles.

We did a functional and then a tabletop for another facility. We cover the inundation downstream, so the community can look at where we think flows are going to be. Ensuring that we're upfront about that aspect of our facilities is paramount because Reclamation's jurisdiction and authority with emergency management is in our notifications. We don't have the authority to mandate evacuations.

What is essential for your job?

Having good working relationships with people. I participate in a quarterly Federal Emergency Management Agency (FEMA) inter-agency steering committee group. When I first started going to those meetings, they didn't know who we were. But there's knowledge now of what role we play within the larger system – how Reclamation affects the Columbia River in an emergency event, especially a Cascadia Subduction Zone event. Our relationships with the U.S. Army Corps of Engineers go far.



Clear Creek Dam overtopping (Yakima Field Office, Washington), December 2015, courtesy Aaron Galayde.



Upper and Lower Boise River Project Functional Exercise (Middle Snake Field Office, Idaho), 2010.

I also work with a majority of the dam operators in CPN. EAPs come from our office and go to the dam operators. Without their input regarding processes and procedures, the EAPs would be inaccurate. They need to tell me how their reality can be reflected within the emergency procedures within the EAP.

How does aging infrastructure affect emergency management?

Aging infrastructure is primarily handled by dam safety and O&M. Emergency management works under the dam safety coordinator for our region, and they're in FO&M. We've tied that relationship together now so that when they are working on something to improve a facility – risk reduction measures – they bring me in. I'll be involved in developing a construction EAP for when they're going in and doing construction.

What is a significant challenge you're facing today?

Staffing. We have a continuity of operations position that has been empty for two years. This is an issue across our region right now though; everyone has similar concerns. I can't just say the work is not going to get done. That's not the way this works. We've got details and we've been trying to keep up, but active staffing is our biggest issue.

Could you tell us about your work to develop the EAPs for CPN's urban canals?

We're getting that off the ground now. We're coming up with a format incorporating a canal into a current EAP because many of our canals are in geographic locations that have dams above them and will affect the same downstream notification areas. We're also considering standalone canal EAPs, but it all depends on the size of the facility and the reach. Take the

New York Canal. It's 41 miles long. It's embanked, it's lined, it's dirt. There are stretches that go through different communities and subdivisions. It's hard to plp it into one EAP because each one of those reaches needs to be considered separately.

We've got ditch riders that ride through those sections and know what they're looking at. That's the aspect that we need to add into our initiating condition table. In January, we're going to hand out draft versions to our annual O&M attendees and say, "This is what we are thinking." We're going to ask for partnerships to move forward with this program.

Can you share a success story about a project?

Every time I do an exercise, it's a success story because we're learning something about our program. There is no bad exercise because you're always going to find something wrong. But that doesn't mean that somebody screwed up. It doesn't mean that you're failing at the EAP process. It means that since

your last exercise, your program has developed. People change, processes change between exercises. From one exercise to the next, you're going to find something to improve. You start off here, you improve it, you come back and test it, and you improve it again. I enjoy going through that with the personnel I work with: law enforcement agencies, field offices, irrigation districts, FEMA.

What advice can you share for those just starting careers in Reclamation?

Don't let your concept of what your degree is – or if you don't have one – hold you back. Don't be afraid to apply for things in this agency. I'm doing something that I didn't know would be possible when I joined Reclamation. After 9/11, I knew I wanted to work in emergency management. I didn't realize I would be lucky enough to do it with an agency like this.



Updates & Due Dates

2024 Water Management Workshop

Please join us for the 2024 Water Management Workshop (WMW) to be held Tuesday, February 13, through Thursday, February 15, at the Denver Federal Center. Registration is now open. Please see below for further guidance. For Bureau of Reclamation (Reclamation) employees, this workshop will count for annual training requirements.



2023 WMW hands-on demonstrations conducted by the Technical Service Center.

Background

The WMW is a seminar for supervisors, managers, water masters, and others responsible for or associated with the operations and maintenance of water systems. It is held when field activities are generally at a minimum for the convenience of operating personnel. The Reclamation-sponsored workshop has been held since 1961. Participants will spend their time attending multiple educational sessions with opportunities for discussion and collaboration. The objective of the workshop is the self-improvement of personnel who are directly responsible for the technical details of operating and maintaining water systems.

Proposed Topics

- Reclamation Partnerships
- Concrete Repair
- Flow Measurement
- Extraordinary Maintenance (XM) Case History
- Bridge Findings

Research Laboratory Tours and Demonstrations

- Hydraulic Investigation and Lab Tour
- Electrical Lock Out/Tag Out
- Concrete and Structural Lab (Unmanned Aerial Systems)
- Geotechnical Lab and Field Support
- Materials and Corrosion Laboratory

Registration

Please email Ginger Dill at gdill@usbr.gov for additional workshop information and the required registration form, which needs to be approved and submitted by your regional lead no later than Monday, January 15, 2024. There is no tuition fee for this workshop.

Next Steps

The 2024 WMW agenda and other materials for the three-day event will be emailed to attendees soon after registration closes on January 15.

We look forward to seeing you there!