Meeting Attendees and Agenda

NV Energy Reid Gardner Station Mesa Ponds M5 and M7 and Raw Water Ponds Emergency Action Plans

Presented By: Michael Rojo, NV Energy Sr. Project Manager, Site Remediation

Meeting date/Time: May 7, 2025 – 1:00 PM – 2:00 PM

Location: Teleconference via Teams

Invited Attendees:
S. Barton – City of North Las Vegas
J. Carl – Las Vegas Metro Police Department
D. Clarkson – Las Vegas Metro Police Department
B. Erickson - City of North Las Vegas
J. Hynds - City of North Las Vegas
M. Rojo – NVE
B. Samuels – Clark County
T. Hill – NVE
R. Dresel – Jacobs
A. Stringer - NVE
B. O'Neal – Clark County

Agenda:
1. Safety Moment
2. Reid Gardner Station Site Update
3. Overview of Emergency Action Plan (EAP)
4. Impacted Area Maps – Theoretical
5. Incident Response Process
6. Roles & Responsibilities

Reid Gardner Dam Safety
Emergency Action Plan (EAP)
Annual Meeting – May 7, 2025

NVEnergy

Reid Gardner Station
EAP Annual Meeting Agenda

1. Safety Moment
2. Reid Gardner Station Site Update
3. Overview of Emergency Action Plan (EAP)
4. Impacted Area Maps – Theoretical
5. Incident Response Process
6. Roles & Responsibilities

Dehydration and Overhydration

- Think of the body as a sponge, too much water is like a sponge overflowing
- Water intoxication >1-1.5 liters per hour for an extended period of time.
- The kidneys can only process 27-34 ounces of water per hour. Drinking too much wate can lead to dilution of sodium levels.

- Balance your water intake with electrolytes
- Better to sip water throughout the day, than drink a lot of water all at once

Reid Gardner Station Site Update

2014
Units 1-3 retired

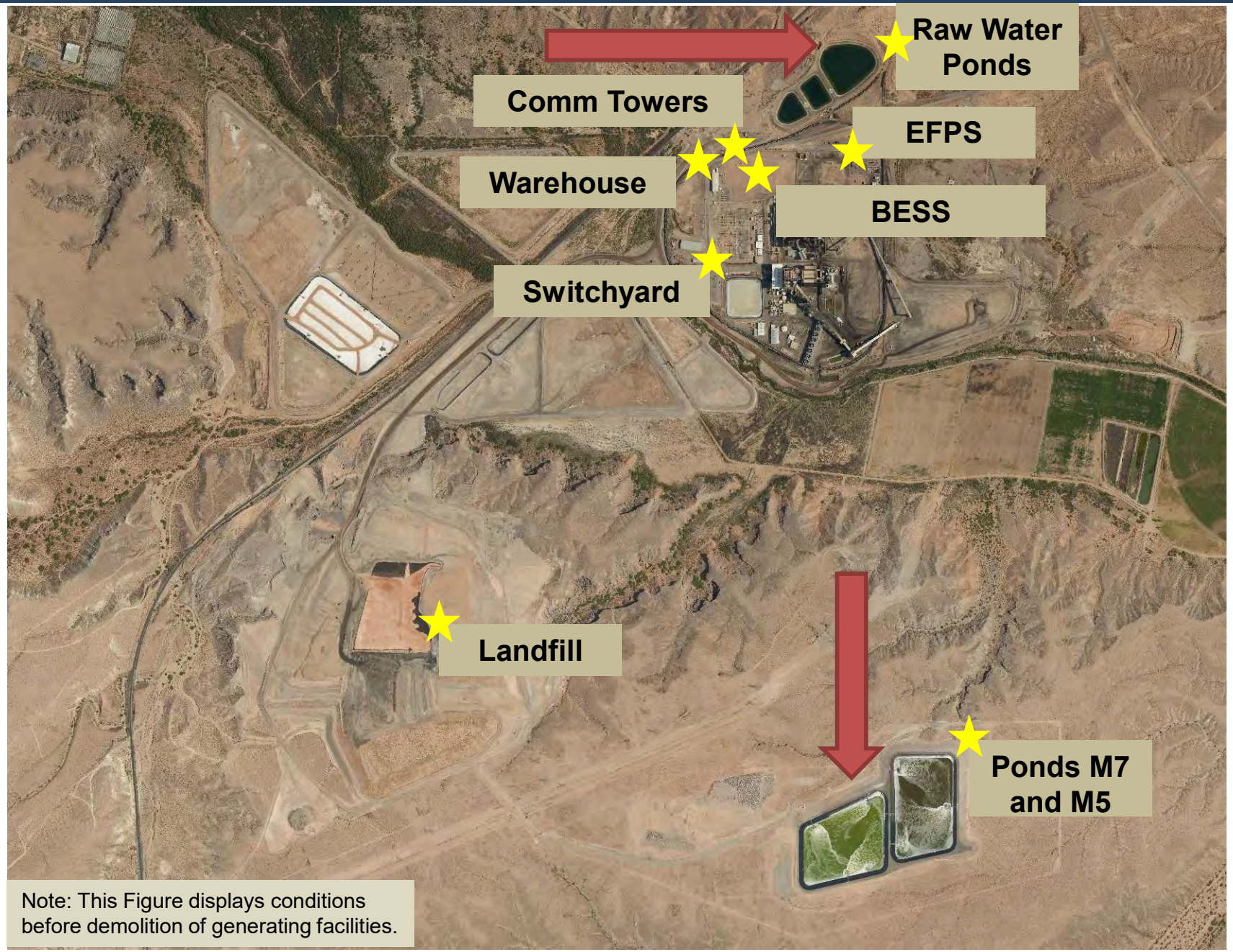
2017 Unit 4
retired

2020 Plant
demolition

2023 BESS
installation

June 2025 Start Ponds
M5 & M7 Closure

Reid Gardner Station Site Update



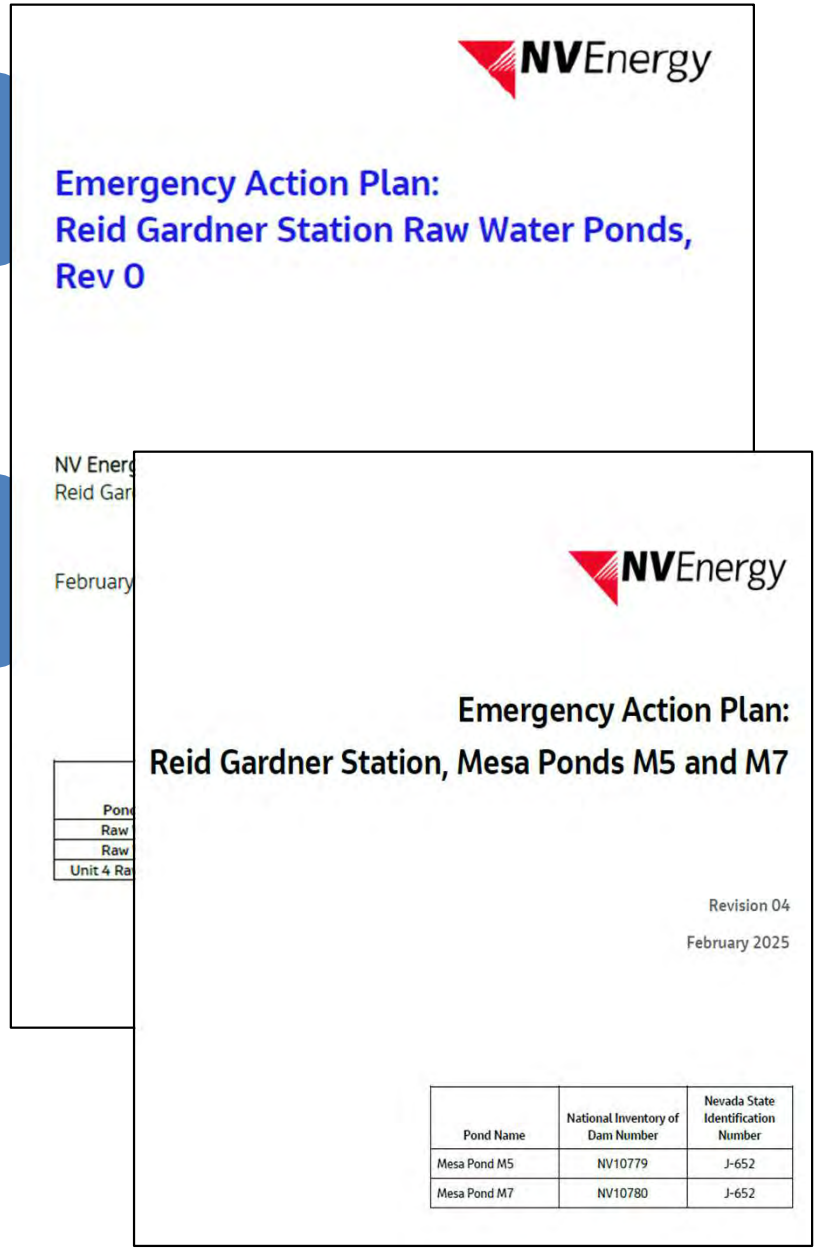
Emergency Action Plan – M5, M7 & Raw Water Ponds

Required by Regulation

- NAC 535.320 and 40 CFR 257.73 (CCR Rule)

Intent of EAP

- Train and assist employees and ER teams in the preparation and response to a dam-safety emergency at the ponds.



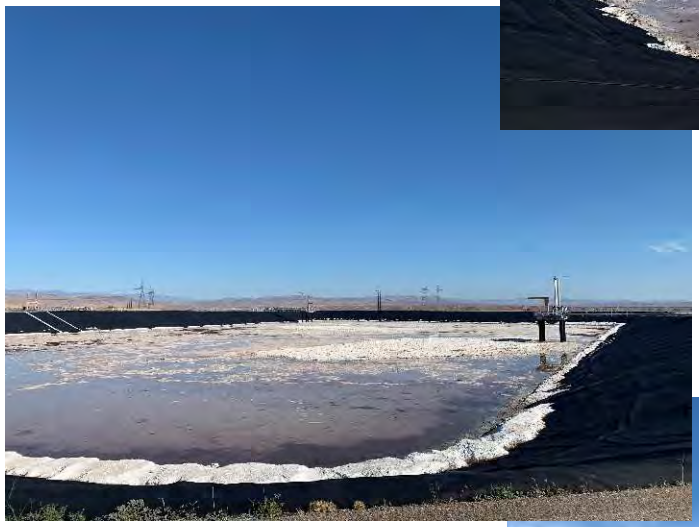
Reid Gardner Station
Pond Conditions

Update on Mesa Ponds

- Approx 3 feet of pond salt in each pond
- < 6 inches of free water (from recent rains)
- 2nd Quarter 2025 ponds solids and liner removal project start

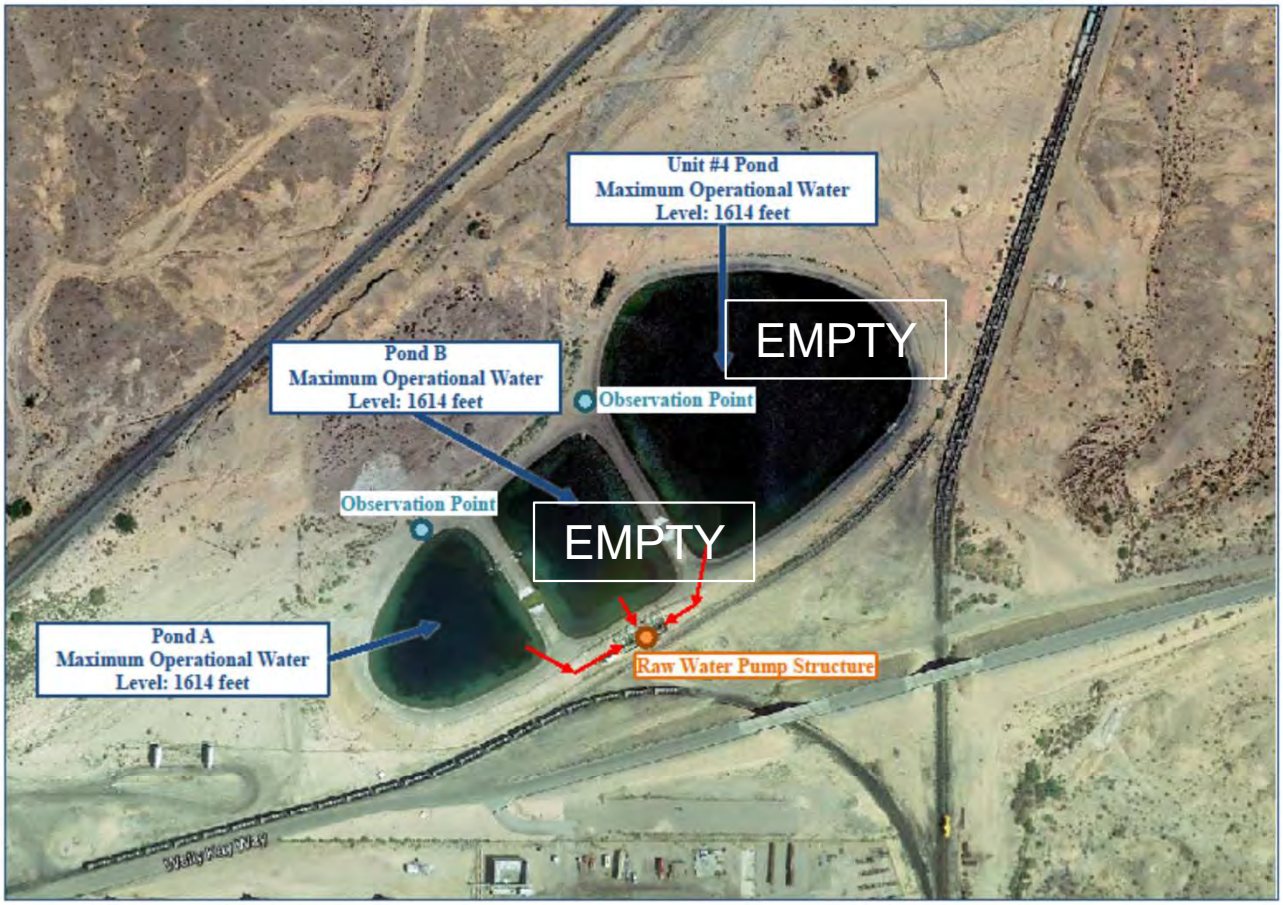
Update on Raw Water Ponds

- West pond operates at ~½ full
- Central and East pond empty



Photos taken 5/7/2025

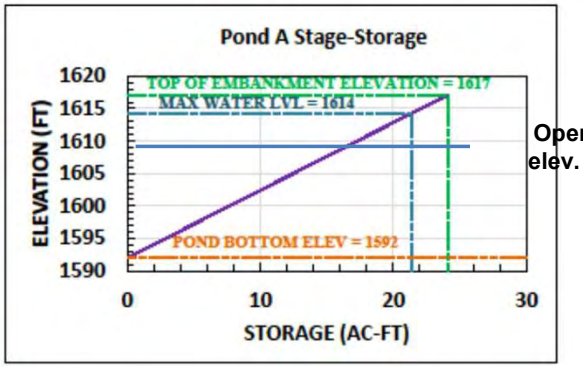
Raw Water Ponds



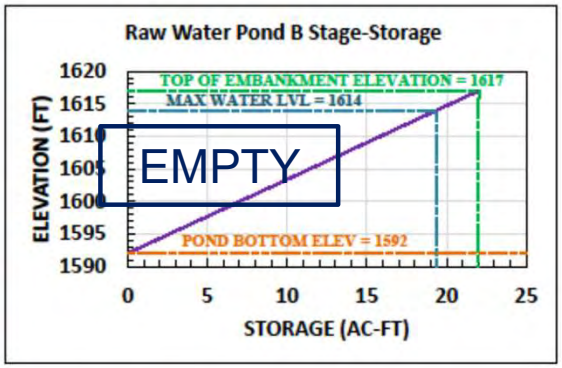
Legend
- Outlet Pipe
- Raw Water Pump Structure
- Observation Point

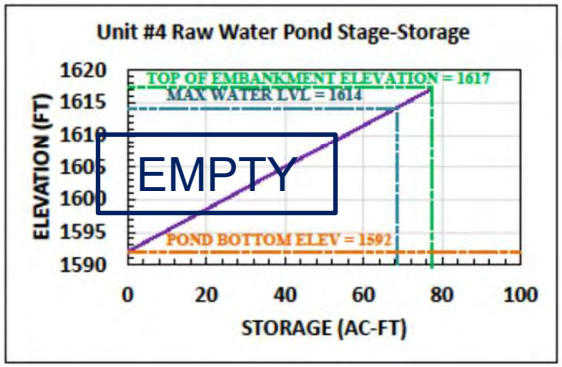
Note: All elevations reference NAVD 1988 vertical datum

Figure 4-2
Dam Facilities Map
Raw Water Ponds
Dam Facilities and Hydraulic Information
Emergency Action Plan
Reid Gardner Station
Moapa, Nevada

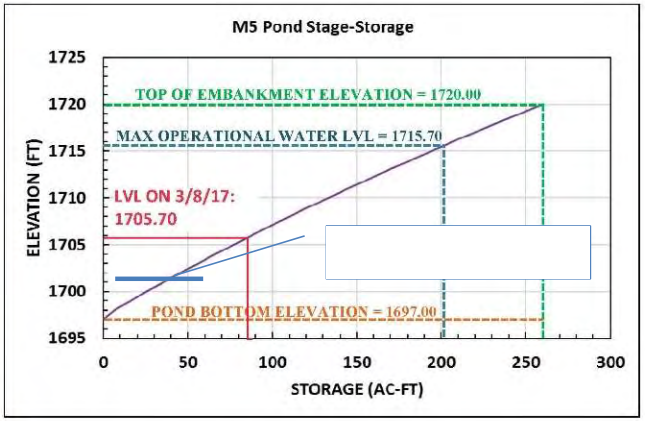


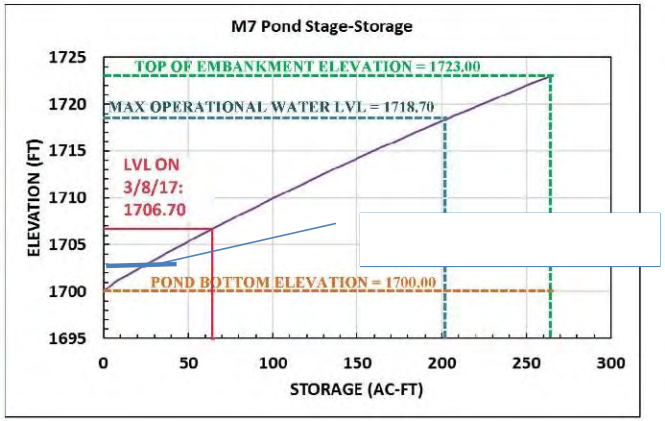
Operational elev. 1,610 ft





Ponds M5 and M7



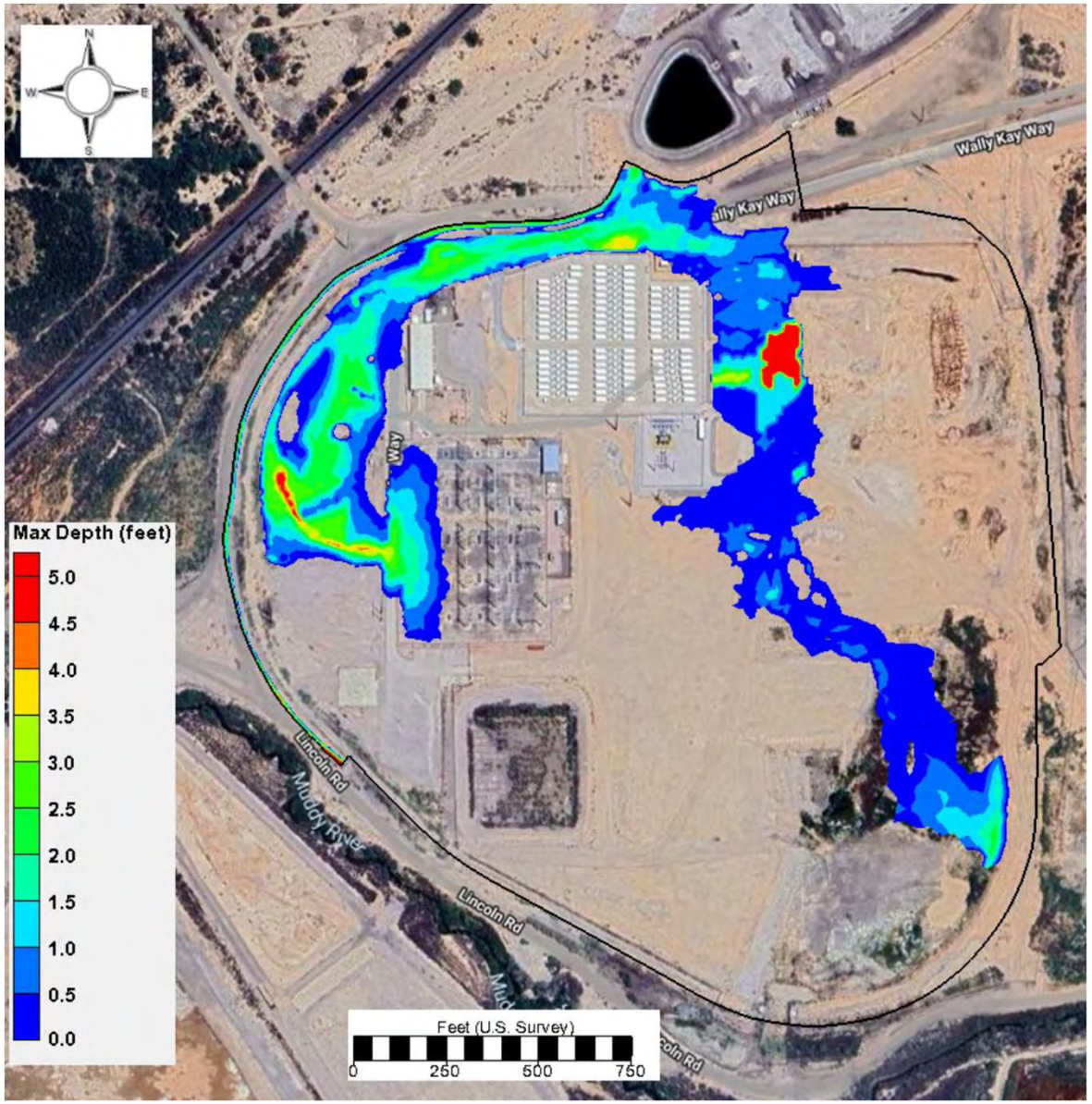


Legend
- Effluent Discharge Pipeline
- Effluent Pipeline Valve Station
- Mixer
- Observation Point
- Pond Effluent Discharge Point

Note: all elevations reference NAVD 1988 vertical datum

Figure 4-2
Dam Facilities Map
Mesa Ponds M5 and M7
Dam Facilities and Hydraulic Information
Emergency Action Plan
Reid Gardner Station
Moapa, Nevada

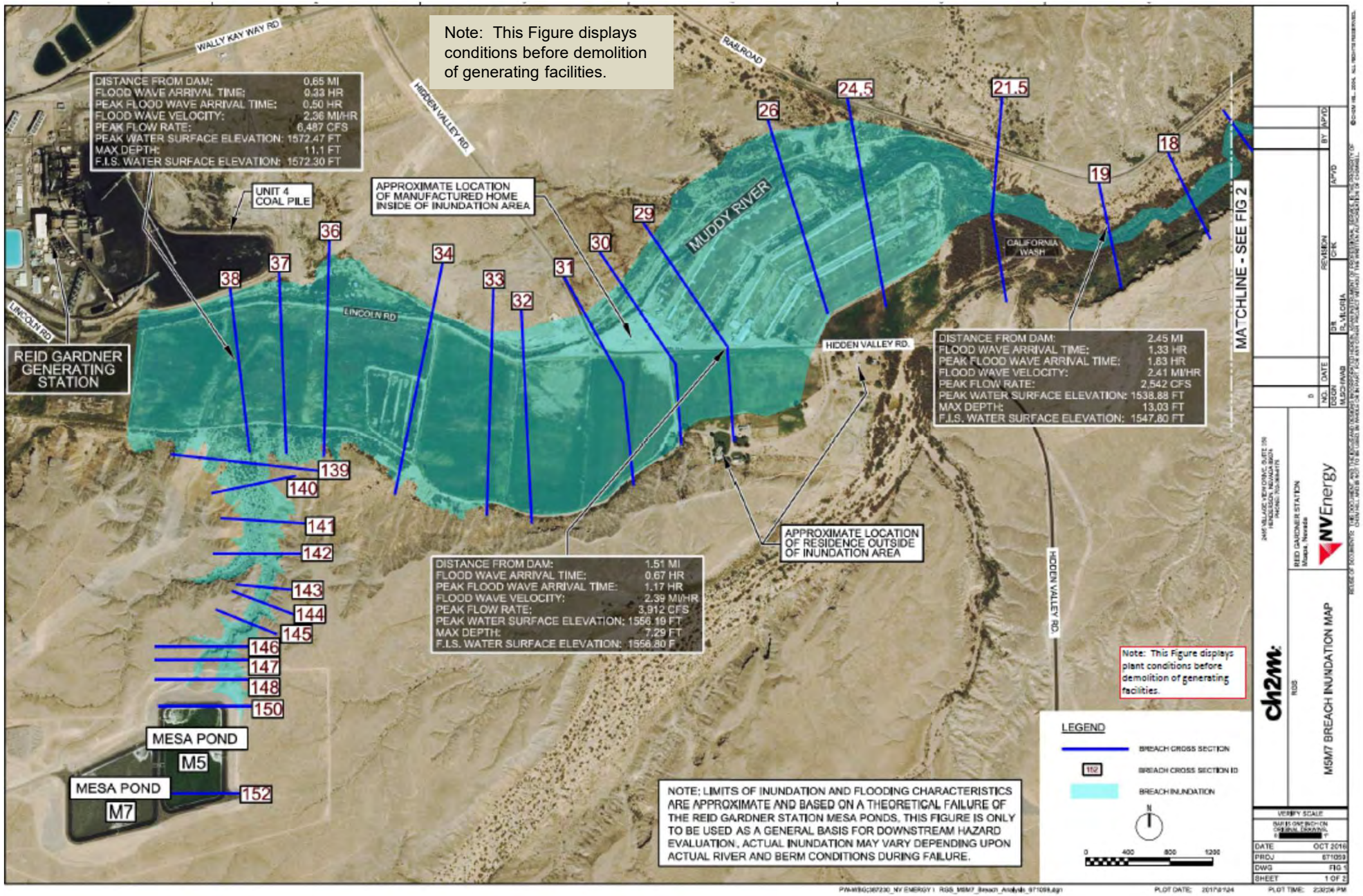
Raw Water Pond High Peak Flow Simulation



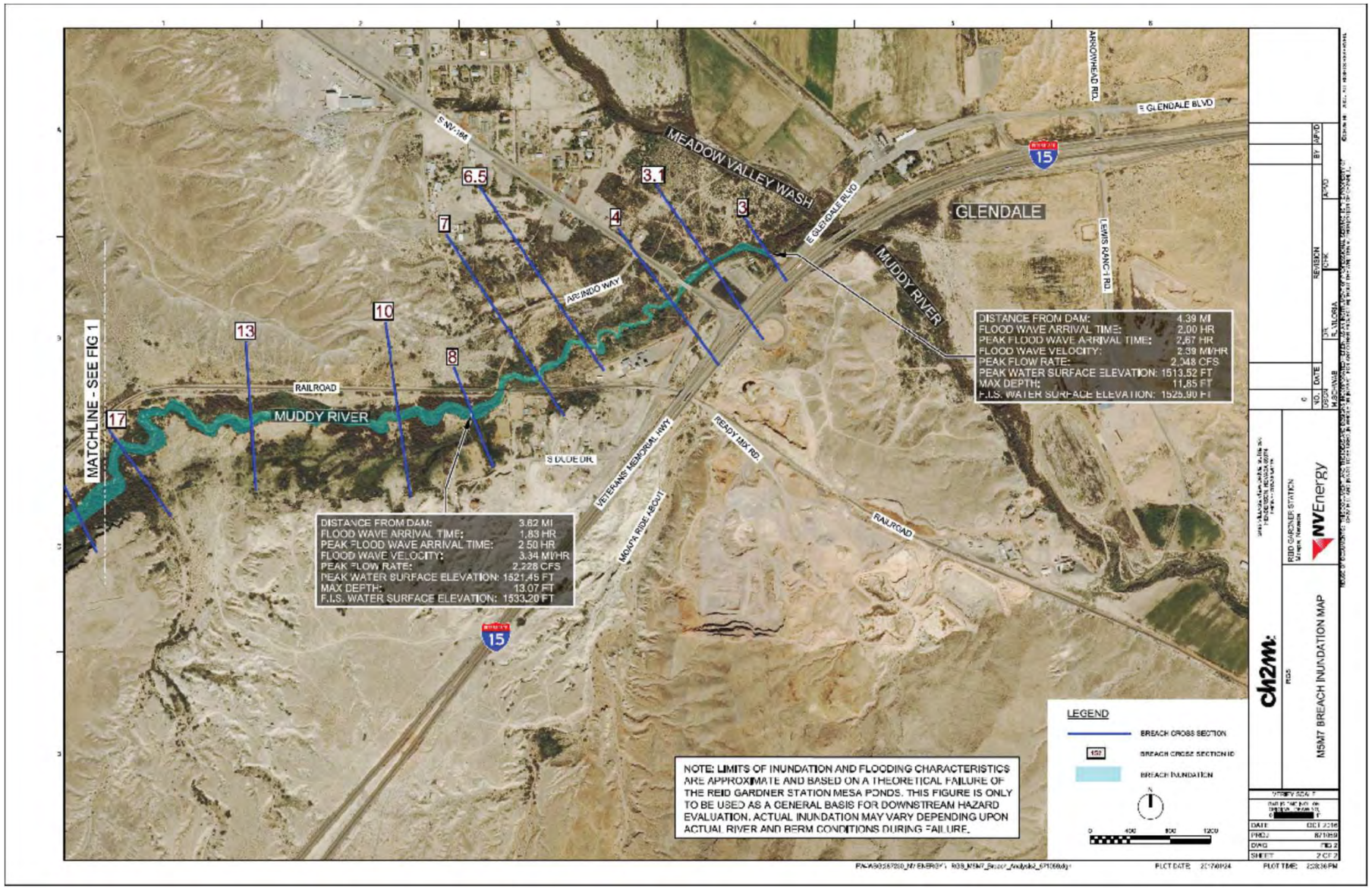
Raw Water Ponds "Sunny Day" Dam Breach Analysis Results

15 mins 60 mins	• time for flood wave to be reach the full western and easter extent
20 feet per second	• Peak velocities near the breach location
5 ft.	• Max water depth
1-3 ft.	• Max water depth in parking area and Wally Kay Way

Pond M5 and M7 Inundation Map



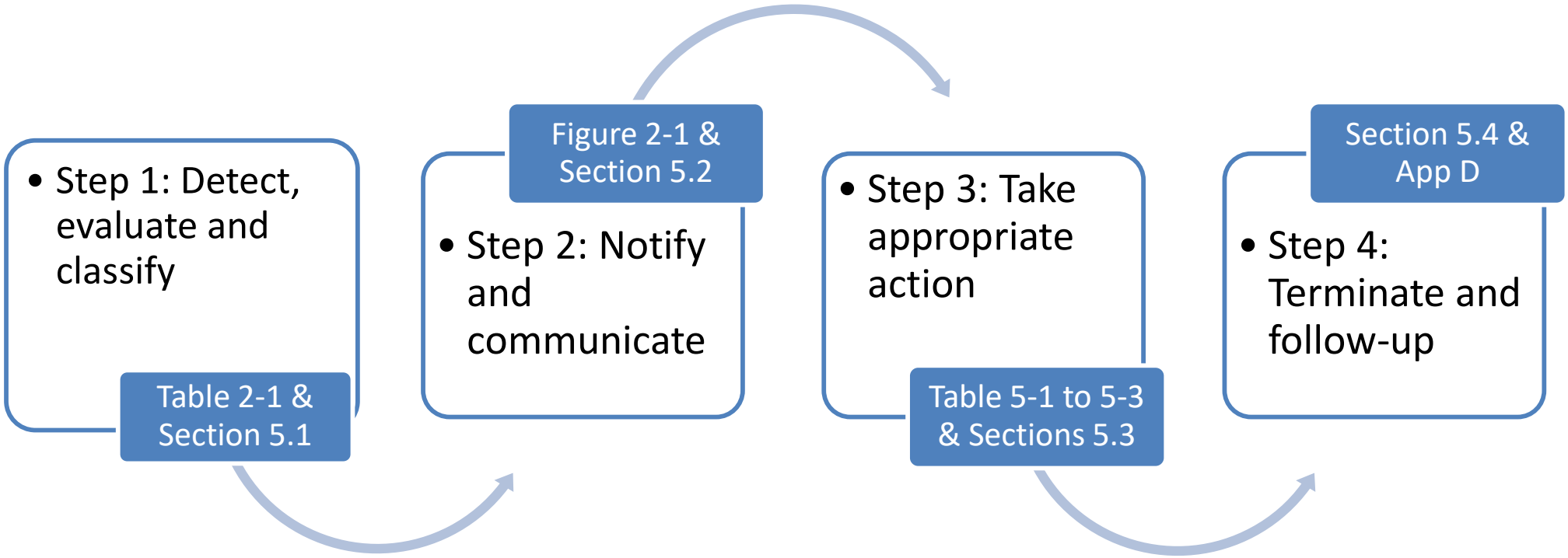
Pond M5 and M7 Inundation Map



Ponds M5&M7 “Sunny Day” Dam Breach Analysis Results

36 mins	• time for leading edge of flood wave to reach the private residence where Hidden Valley Rd crosses the Muddy River
4,000 cfs	• Max flow at the private residence
5 ft.	• Max water elevation in dairy fields
1-2 ft.	• Max water elevation at private residence
2 river miles	• distance it takes to contain potential flood in the Muddy River banks.

4 Step Response Process



4 Step Process (Step 1)

Step 1: Detect, evaluate and classify an incident or emergency

Emergency Classifications:

Non-Failure, Potential Failure, Imminent Failure

Table 2-1. Emergency Level Determining Guidance

Risk	Emergency Level Determination Guidance	Emergency Level		
		Non-Failure	Potential Failure	Imminent Failure
Flooding	Not considered a likely event for M5/M7 ponds because of the location on Mesa and away from low-lying areas. Closure has also been initiated per 40 CFR §257.101(a)(1) and there is approximately 3 feet of solids in the ponds.	•		
Erosion	Incised areas close to the ponds	•		
Overtopping of top of the ponds	Water level is above maximum operational level, but more than 12 inches below the pond embankment	•		
	Water level within 12 inches of pond embankment		•	
	Erosion of embankment area by large overtopping waves			•
	Water level at or nearly at top of dam; water overtopping top of dam, with or without erosion			•
Seepage	New seepage area on or around the M5/M7 Ponds	•		
	New seepage area with cloudy discharge or increasing flow rate		•	
	Rapid flow rate increase with cloudy discharge from an existing seepage area			•
	New, small sand boil, whirlpool, rapid settlement, or sinkhole	•		
	Enlarging sand boil, whirlpool, settlement, or sinkhole – imminent failure if rapid		•	•
Embankment cracking	New cracks in the embankment, greater than 0.25-inch-wide, without seepage	•		
	Cracks in the embankment with seepage		•	
Embankment movement	Evidence of embankment slope movement (sliding, slumping, rotation, settlement)	•		
	Sudden or rapidly progressing slides of the embankment slopes			•

Emergency Classifications

Scenario	Conditions	Response
Non-Failure ✓	• water level > operational level, • minor seepage, cracking, sinkholes	• Engage internal experts for evaluation, monitoring and response
Potential Failure ✓	• Increasing discharge from seepage, cracks, • Water releasing from damaged structures, damaged piping • Verified security threats that if carried out could result in damage to the ponds	• Engage emergency responders for preparation and coordination • Engage dam-safety experts to evaluate actions to prevent failure or reduce impacts
Imminent Failure ✓	• Erosion of crest by large overtopping waves, water level overtopping top of berm • Rapidly progressing seeps, sinkholes, slides of embankment slopes	• immediately initiate evacuations • Make emergency notifications • Engage dam-safety experts to evaluate actions to delay failure or reduce impacts

4 Step Process (Step 2)

Step 2: Notify and Communicate

Based on the level of the emergency, notify parties using the notification flow chart in Section 2

4 Step Process (Step 3)

Step 3: Take Emergency Action

- Prevent or delay dam failure
- Mitigate impacts if failure cannot be avoided.

Depending on the issue and potential level of failure, actions may include:

- Security issues: observe and notify corporate security
- Water level issues: monitoring berm conditions, control water levels and incoming flows,
- Berm integrity issues: reinforce/repair berms, placing traffic controls, initiating evacuation, employing methods to divert flow post failure.

Available Emergency Equipment

Quantity	Description
1	One-ton, 4x4 pickup
1	Half-ton, 4x4 pickup
1	Caterpillar 928 front-end loader
2	Bobcat skid steer loaders
1	Ranger rescue boat with 2-25 horsepower motors
2	All-terrain vehicles

4 Step Process (Step 4)

Step 4: Termination and Follow-Up

- Communicate with all previously-contacted parties (notification flowchart in Section 2)
- Post-event documentation
- Conduct supplemental evaluation of the EAP for its effectiveness and recommended improvements

Select Roles and Responsibilities

Incident Commander

- Ensures full response process is implemented during an event (Section 5)
- decides when to terminate an event

Observer

- Initial notifications
- Mitigate with corrective actions
- Monitor the dam and provide status updates

EAP Coordinator

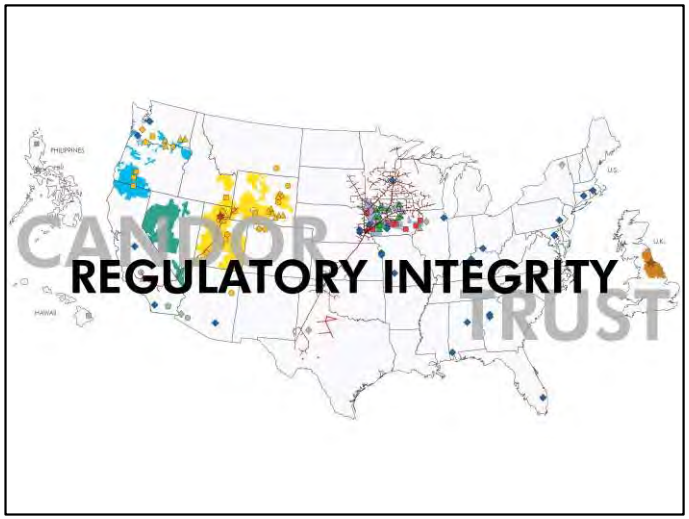
- assist Incident Commander during emergencies
- provide training
- update documents

Dam Safety Engineer

- consult during emergencies
- conduct annual inspections
- assist with updating EAP

Emergency Management Authorities

- issue public warnings
- perform evacuations
- coordinate outside agency response



Questions?

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