Meeting Agenda

NV Energy Reid Gardner Station Mesa Ponds M5 and M7 Emergency Action Plan

Prepared by:	Michael Rojo, NV Energy Supervisor, Environmental Services
Meeting date/Time:	March 15, 2018. 1:00pm – 3:00pm
Location:	Reid Gardner Station. 501 Wally Kay Way, Moapa, NV 89025
Invited Attendees:	NV Energy – Todd Robison, Tony Garcia, Michael Rojo, Mike Vatana, Thomas Price, Steve Hansen Clark County – David Clegg, Larry Haydu, Misty Richards City of North Las Vegas – Solome Barton CH2MHill (Jacobs) – Nathan Betts

1. Introductions
2. Safety Minute
3. Purpose of Meeting
4. Overview of Emergency Action Plan (EAP)
5. Emergency Action Plan – Incident Scenarios
6. Emergency Action Plan – Incident Notification Procedures
7. Emergency Action Plan – Incident Response Procedures
8. Pond M5 and M7 Site Tour

Reid Gardner Station Emergency Action Plan (EAP)
Ponds M5 and M7 – Annual Meeting March 15, 2018

NVEnergy
A MIDAMERICAN ENERGY HOLDINGS COMPANY

DATE: 3/15/2018

LOCATION: Reid Gardner Station

ATTENDANCE RECORD

	NAME (Type or print clearly)	SIGNATURE	Organization
1.	Michael Rojo		NV Energy
2.	Solonié Barton		City of North Las Vegas Office of Emerg. Mgmt
3.	Nathan Betts		Jacobs (CH2M Hill)
4.	Thomas Price		NV Energy
5.	Ron Leachman		Moapa Fire
6.	Charles Lindy		Moapa Fire
7.	Faron Maderazo		Logandale Fire
8.	Chris Blackburn		CCFD
9.	Tony Garcia	Tony Garcia	NVE
10.	Stephanie Davis		NVE
11.	Ramiro Garza		NVE
12.	Steve Hanson		NVE
13.	Todd Robson		NVE
14.			
15.			
16.			
17.			
18.			

Reid Gardner Station Emergency Action Plan (EAP) Ponds M5 & M7

Annual Meeting March 15, 2018

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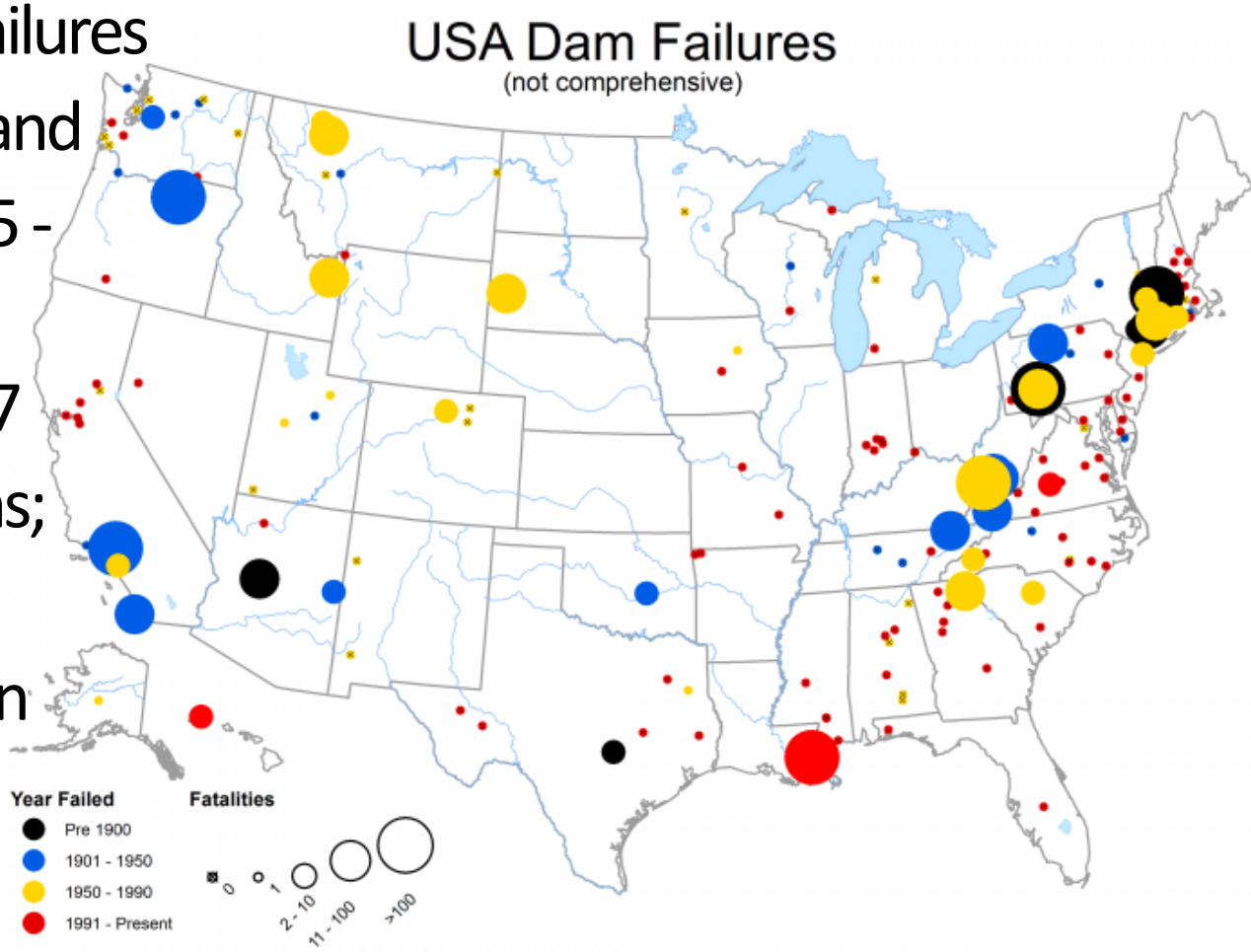
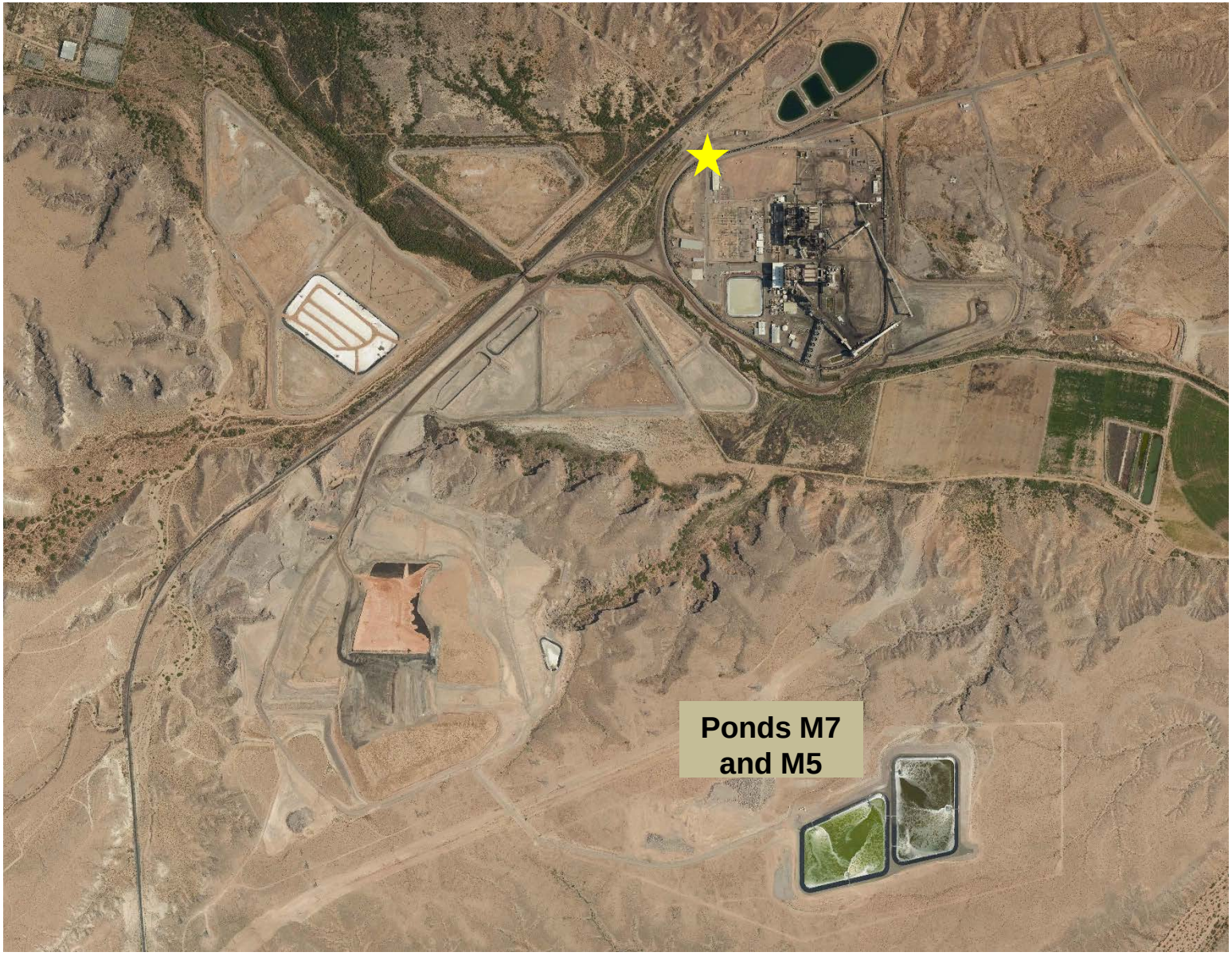
Safety Minute - Overview of Dam Safety

- Every state has had failures
- 137 national failures and 587 incidents from 2005 - 2015
- Elko and Reno in 2017
- NV has 675 total dams; 158 high-hazard
- Stormwater detention basins, ponds, tailing dams, levees
- ASCE Report Card for dams: D for US; D+ for Nevada

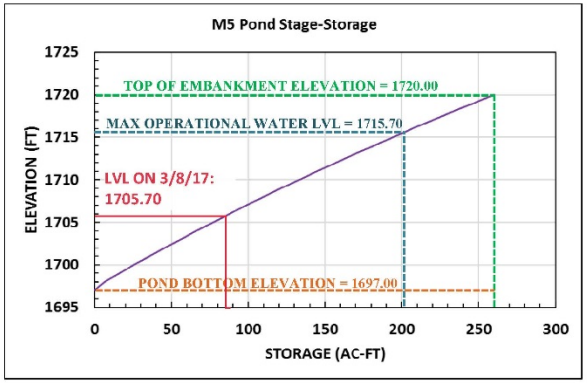


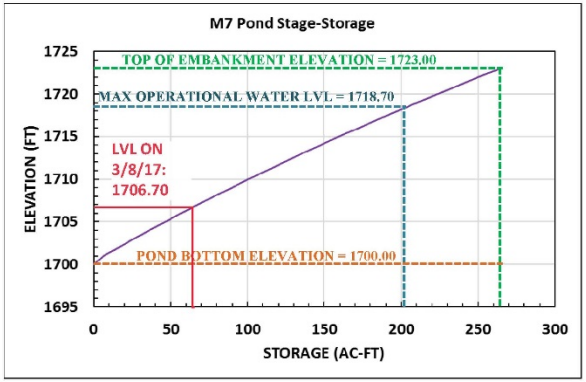
Sources: https://damsafety.org/dam-failures
https://www.infrastructurereportcard.org/state-item/nevada/

Site Orientation – Reid Gardner Station



Ponds M5 and M7



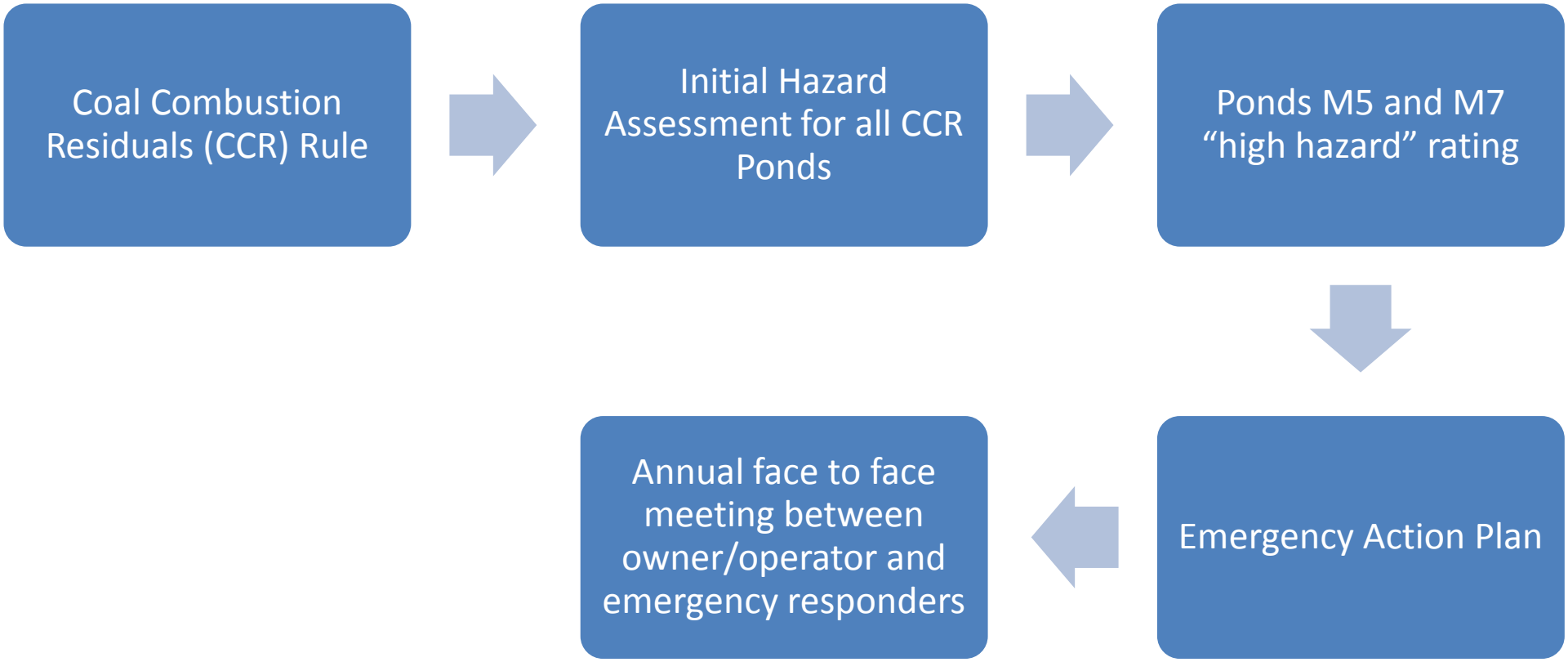


Legend
- Effluent Discharge Pipeline
- Effluent Pipeline Valve Station
- Mixer
- Observation Point
- Pond Effluent Discharge Point

Note: all elevations reference NAVD 1988 vertical datum

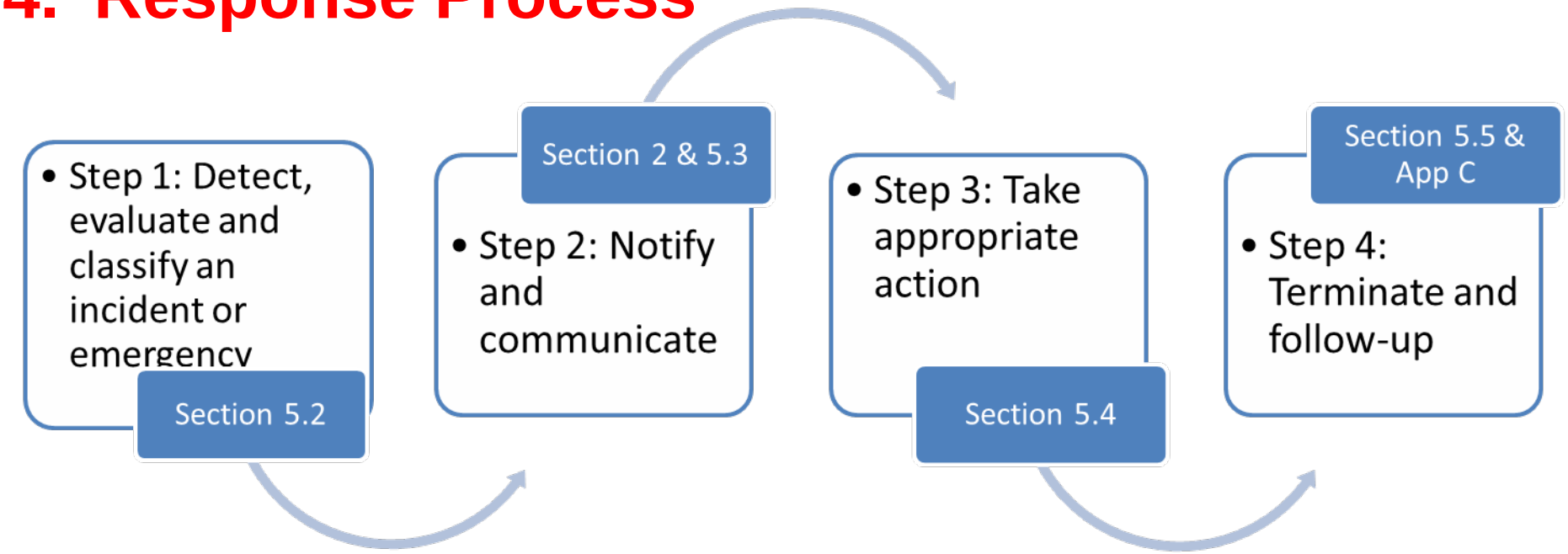
Figure 4-2
Dam Facilities Map
Mesa Ponds M5 and M7
Dam Facilities and Hydraulic Information
Emergency Action Plan
Reid Gardner Station
Moapa, Nevada

Regulatory Requirement



Emergency Action Plan Overview

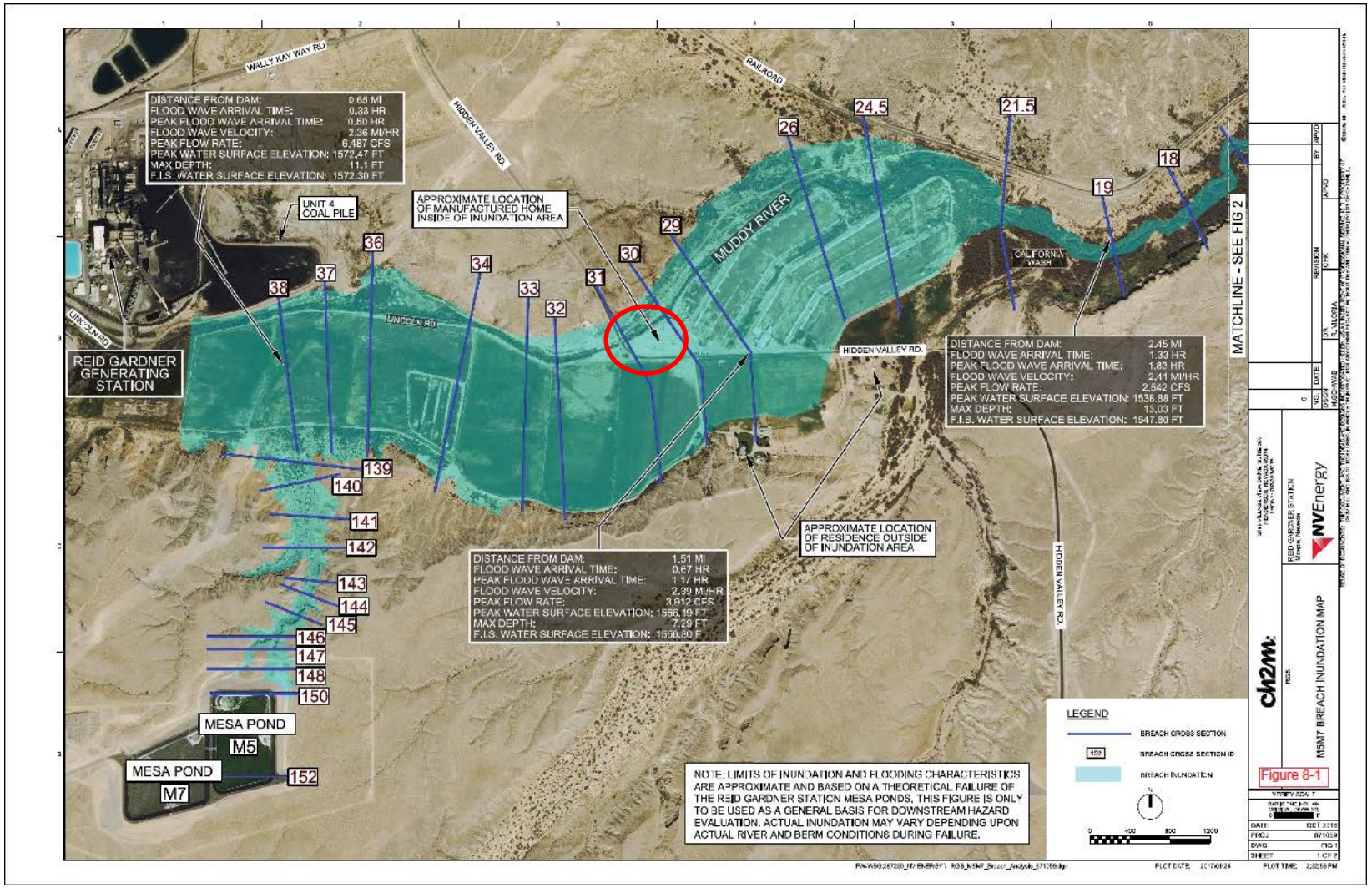
1. Pond Description
2. Responsibilities under the EAP
3. Preparedness
4. **Response Process**



Incident Scenarios

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

Pond M5 and M7 Inundation Map



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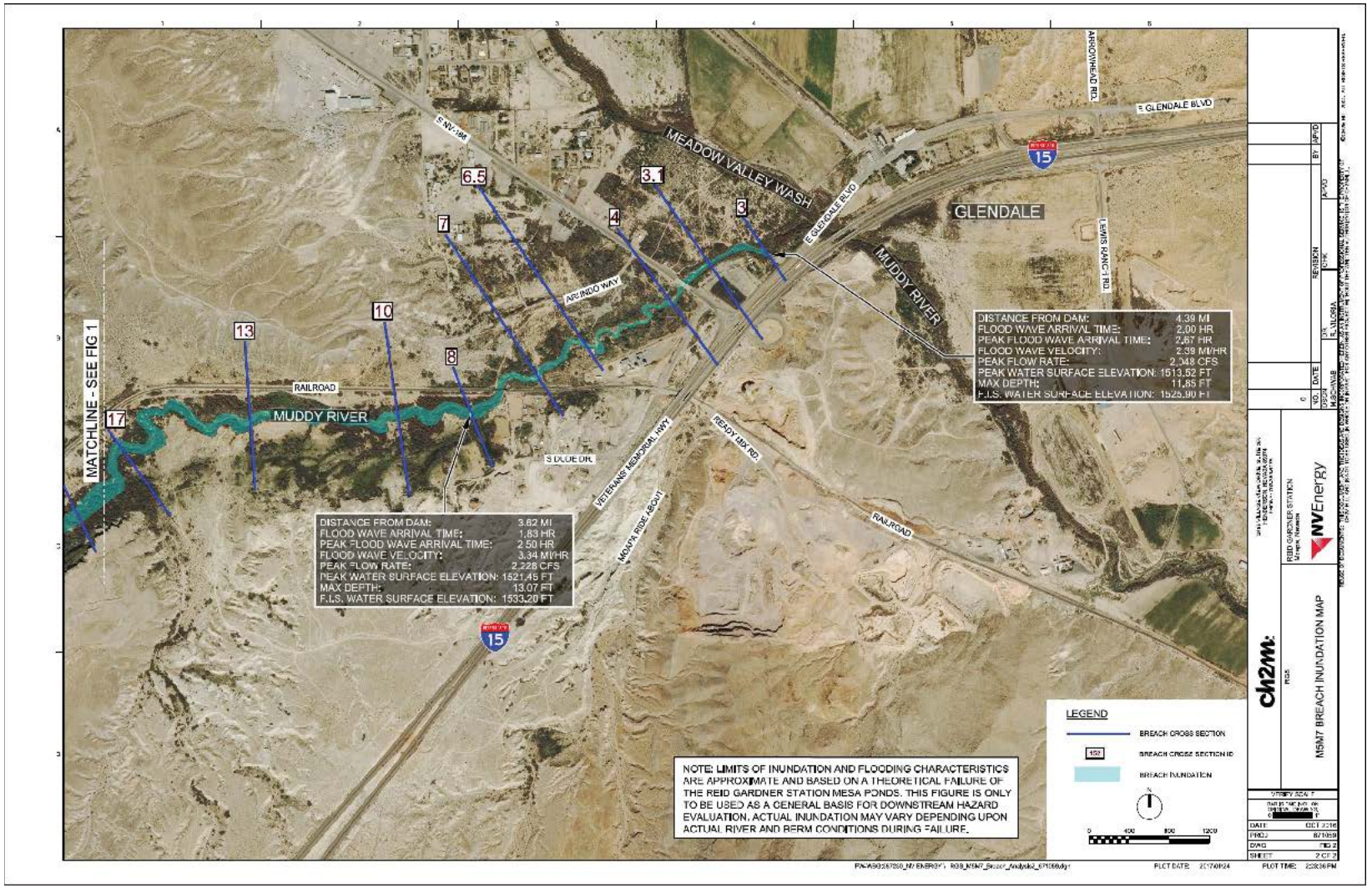
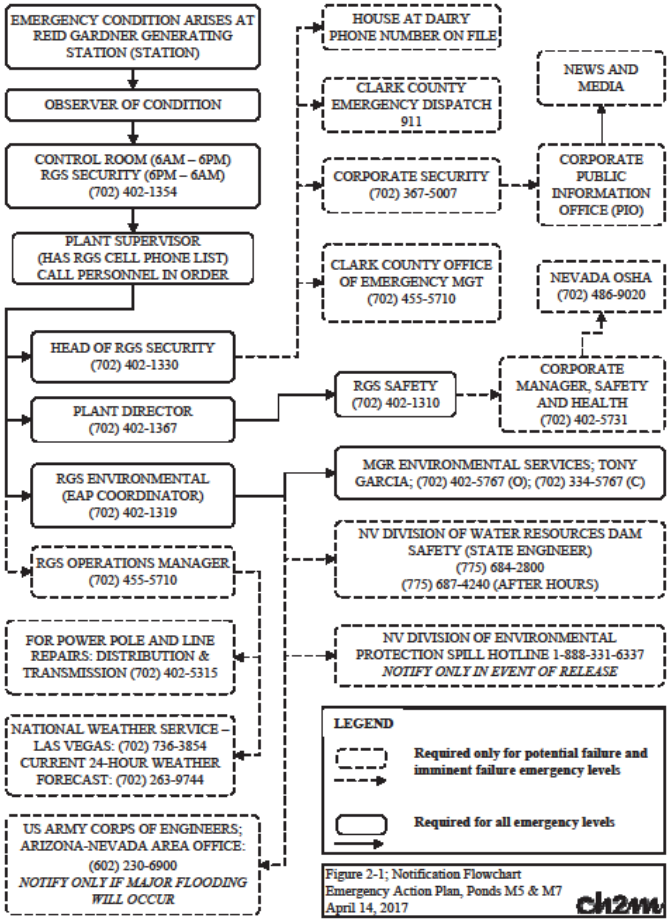


“Sunny Day” Dam Breach Analysis Results

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 miles	• distance it takes to contain potential flood in the Muddy River banks.

Emergency Notifications

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



Emergency Actions

Take emergency action

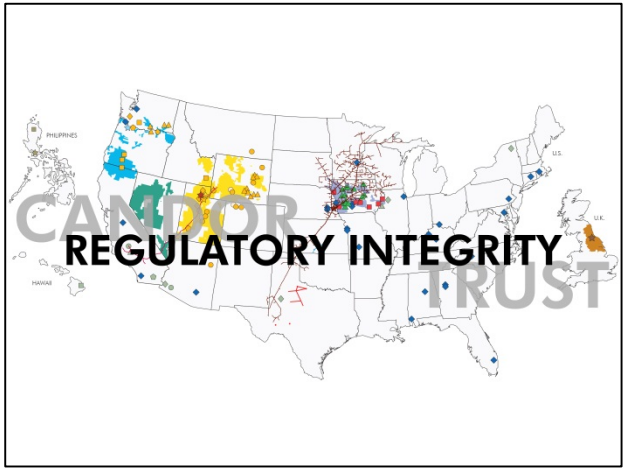
- prevent or delay dam failure
- mitigate impacts if failure cannot be avoided.

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

- monitoring berm conditions, control water levels and incoming flows, reinforce/repair berms, placing traffic controls, initiating evacuation, employing methods to divert flow post failure.

Select Roles and Responsibilities

Incident Commander	EAP Coordinator	Dam Safety Engineer	Emergency Management Authorities
• Ensures full response process is implemented during an event • decides when to terminate an event	• assist Incident Commander during emergencies • provide training • update documents	• consult during emergencies • conduct annual inspections • assist with updating EAP	• issue public warnings • perform evacuations • coordinate outside agency response



Questions?

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