FOREWORD

Santa Luisa County and the City of Santa Luisa del Mar, which is loosely based on the area of Santa Barbara, was created in 1992 by the California Specialized Training Institute to provide students a realistic locale to practice newly acquired skills in emergency management. Over the course of 24 years, this fictional area has grown in size and population, with new additions including a peninsula and a large dam.

The purpose of this Santa Luisa Dam Emergency Action Plan (EAP) is to provide a model EAP for dam owners/operators throughout California. The California Governor's Office of Emergency Services (Cal OES), Dam Safety Planning Division developed this document in accordance with the requirements listed in California Water Code Sections 6160 and 6161, and Government Code Section 8589.5, following the Federal Emergency Management Agency's *Federal Guidelines for Emergency Action Planning for Dams* (2013).

The Cal OES Dam Safety Planning Division is available to assist dam owners/operators and emergency managers with completing their EAPs. Please contact the division at eap@caloes.ca.gov.

Please submit EAPs to:

Jose Lara, Chief Dam Safety Planning Division 3650 Schriever Avenue Mather, CA 95655

More information is available at the following website: www.caloes.ca.gov/dams.

For information on dam inundation mapping, please refer to the Department of Water Resources (DWR), Division of Safety of Dams (DSOD) webpage: <u>https://www.water.ca.gov/Programs/All-Programs/Division-of-Safety-of-Dams</u>.

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ANTHONY SANCHEZ GENERAL MANAGER

Santa Luisa Water Co. 900 East Todos Santos Ln. Santa Luisa del Mar, CA

(000) 000-0001

May 7, 2018

Jose Lara, Chief Dam Safety Planning Division 3650 Schriever Avenue Mather, CA 95655

Re: Santa Luisa Dam, No. 0.000 Submission of Emergency Action Plan

Dear Mr. Lara,

Enclosed is the Emergency Action Plan for the Santa Luisa Dam, which has been classified as "Extremely High" hazard dam by the Department of Water Resources (DWR), Division of Safety of Dams (DSOD). Additionally, we have included our EAP Status Report to update Cal OES of our annual exercise information.

If you have any questions, comments, or concerns, please feel free to contact our EAP Coordinator, Lisa Clark at <u>lclark@slwc.com</u> or 000-000-0003.

Respectfully Submitted,

ANTHONY SANCHEZ General Manager

CC: Ben Powell, Dam Supervisor, SLWC Lisa Clark, EAP Coordinator, SLWC Page Intentionally Blank

Santa Luisa Dam 2532 Skyline Drive, Santa Luisa, California (34.455024, -119.725381)

Santa Luisa County, California DSOD Southern Region DSOD No. 0.000 National ID No. CA0000 Extremely High Hazard Classification

Emergency Action Plan Santa Luisa Dam

Dam Owner Santa Luisa Water Co. 900 East Todos Santos Lane

EAP Coordinator Lisa Clark

Date Prepared | May 2, 2018





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Dam Contact Information

Santa Luisa Dam

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Physical Address:
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2532 Skyline Drive Santa Luisa, CA

Dam Owner: Santa Luisa Water CompanyAddress:900 East Todos Santos LaneSanta Luisa del Mar, CA

General Manager: Anthony Sanchez Email: <u>asanchez@slwc.com</u>

Phone: 000-000-0001

EAP Coordinator: Lisa Clark Email: lclark@slwc.com

Phone: 000-000-0003

Emergency Contact (24 hour contact): Dam Supervisor: Ben Powell Email: <u>bpowell@slwc.com</u> Phone: 000-000-0002

Key Dam Information



Dam Description

Height: 205 ftBuilt: 1918Dam Operator: Ben Powell, Santa Luisa Water Company DSOD #: 0.000 NID #: CA0000 Hazard Classification: Extremely High Property Owner: Santa Luisa Water Company

Potential Impacted Area

The water from Lake Elena flows through the Santa Luisa Dam to the Santa Luisa River, which flows through the City of Santa Luisa del Mar and eventually into the Pacific Ocean. If the dam were to have an emergency, depending on the severity, there would be flooding along the river. Additional flooding would occur throughout the city if the dam actually failed (see Part II: Inundation Maps).

As shown in the maps, if the dam failed, the city would flood, and a part of the city would be islanded from outside help, and could only be accessed from the water. This area would include the county hospital, as well as the civic center. Additionally, the mall and fairgrounds could be impacted, as well as part of the county airport, Ocean High School, and Taylor Elementary.

Directions to Santa Luisa Dam

Santa Luisa Dam is located on the south side of Lake Elena. The dam is about 5 miles north of the city limits of Santa Luisa del Mar. While the lake is only about 10 miles along State Route 186 southeast of Larson, the dam itself is 20 miles from Larson.

In order to get to the dam from the south, take SR 186 and take the exit for Lake Elena. From the northwest, or coming from Larson, take SR 186 to the Lake Elena exit. The address of the dam is 2532 Skyline Drive, Santa Luisa, CA.

PART 1: EAP INFORMATION

Section 1: Introduction

1.1 Purpose

The purpose of the Santa Luisa Dam Emergency Action Plan (EAP) is to reduce the risk of loss of human life or injury and to minimize property damage in the event of a dam safety emergency or flooding caused by large releases from the Santa Luisa Dam.

This EAP defines the responsibilities and provides procedures to identify and effectively address unusual and unlikely conditions that may endanger the Santa Luisa Dam and nearby areas in time to take mitigating actions and notify the appropriate emergency management officials.

The Department of Water Resources (DWR), Division of Safety of Dams (DSOD) has rated Santa Luisa Dam as "Extremely High" based on hazard classification. Because of its hazard classification, Santa Luisa Water Company (SLWC) developed this EAP in accordance with the requirements listed in California Water Code Sections 6160 and 6161 and Government Code Section 8589.5, following FEMA's Federal Guidelines for Dam Safety: Emergency Action Planning for Dams (FEMA 64/July 2013).

1.2 Planning Team

The SLWC EAP Coordinator worked with a core planning team to develop this plan. Key participants include the Santa Luisa County Office of Emergency Services, the Santa Luisa County Sheriff's Department, and the Santa Luisa County Fire Department. The National Weather Service and city officials were also contacted for their input. Other members that provided valuable input are mentioned on the Signature Page (see Appendix M). Additionally, while creating and updating the Notification Flowcharts, the EAP Coordinator communicated with each contact to ensure that the EAP contains current information.

For more information, please contact the EAP Coordinator:

Lisa Clark <u>lclark@slwc.com</u> 000-000-0003 Mailing Address: 900 East Todos Santos Lane Santa Luisa del Mar, CA

Section 2: Summary of EAP Responsibilities

Critical responsibilities for Santa Luisa Water Company (SLWC) personnel and local public safety agencies are summarized below for quick reference. The responsibilities listed include those for responding to an incident and implementing the plan. For successful implementation of this EAP, SLWC continuously engages and partners with local, county, and state public safety agencies to maintain strong communication and a common understanding of each agency's role(s) and responsibilities. Section 6 has more comprehensive descriptions of the roles and responsibilities established by this EAP.

2.1 SLWC Personnel

Key responsibilities include:

- Detect, verify, and assess emergency conditions.
- Activate and implement the Santa Luisa Dam EAP (including, but not limited to, determining the appropriate emergency level, taking corrective actions, etc.).
- Notify appropriate agencies of emergency conditions, emergency level, EAP activation, and other critical information.
- Notify public safety agencies of updates or changes during the incident, including termination of the emergency and the plan.
- Facilitate an after-action evaluation and report.
- Maintain EAP and annually update.
- Provide and facilitate training and testing of EAP.

2.2 Local Public Safety Agencies¹

Key responsibilities include:

- Implement public warning and notification.
- Execute evacuation from inundation areas and block access areas.
- Establish evacuation routes and road closures.
- Provide security for the affected areas during, and after, evacuation.
- Establish shelters for evacuated individuals.
- Facilitate return of evacuated individuals.
- Participate in after action evaluation.

¹ The local public safety agencies, which are further explained in Section 6, are primarily from the jurisdictions that would be impacted by a dam incident.

Section 3: Notification Flowcharts

The Santa Luisa Water Company (SLWC) produced Notification Flowcharts to appropriately identify who needs to be contacted and in what order, based on the appropriate emergency level. The top "row", the numbered phone calls, indicates those contacts that SLWC will make during each emergency level. The subsequent contacts in the flowcharts are those made by other contacts in the phone tree. SLWC worked with our partners to extend our flowcharts to include these secondary contacts. These secondary calls have been agreed to by those organizations making the calls (i.e., Sheriff Dispatch to County Fire), and have been incorporated into those agencies' policies and procedures. These contacts are listed in the EAP for informational purposes only. The SLWC's Notification Flowcharts do not supersede or affect these external organizations' notification procedures and requirements.

Positive contact is a requirement for SLWC when making these calls. Every number listed can be used 24-hours a day, except for the DSOD contacts, which have several numbers covering the 24-hour period.

SLWC has also created a Contact Table for secondary numbers and contact information for key stakeholders.

3.1 Notification Flowcharts

The following pages are the Notification Flowcharts for each emergency level.





Potential Failure Notifications





Imminent Failure Notifications

3.2 Contact Table

This table has supplementary contact information, as well as information for key stakeholders.

This table will be used as a secondary method to contact those on the flowcharts, but also additional information can be sent to key stakeholders that do not need immediate notification during an emergency.

Organization	Title	Phone #1	Phone #2	Email Address	Address
Cal OES	California State Warning Center	916-845-8911	800-852-7550	Warning.center@oes.ca.gov	3650 Schriever Ave Mather, CA 95655
DWR DSOD	Chief Field Engineering Branch (Andrew Mangney)	916-227-9800		Andy.Mangney@water.ca.gov	P.O. Box 942836 Sacramento, CA 94236-0001
DWR DSOD	Area 9 Engineer (Richard Draegar)	916-227-4755		Rick.Draeger@water.ca.gov	P.O. Box 942836 Sacramento, CA 94236-0001
DWR DSOD	Southern Regional Engineer (Shawn O. Jones)	916-227-4600		Shawn.Jones@water.ca.gov	P.O. Box 942836 Sacramento, CA 94236-0001
Santa Luisa Water Company	General Manager (Anthony Sanchez)	000-000-0001 (24 hour contact)		asanchez@slwc.com	900 East Todos Santos Lane Santa Luisa del Mar, CA
Santa Luisa Water Company	Dam Supervisor (Ben Powell)	000-000-0002 (24 hour contact)		bpowell@slwc.com	2532 Skyline Drive Santa Luisa, CA
Santa Luisa County Sheriff's Department	Dispatch	000-100-0000		dispatch@slcsd.com	21 Detroit Road Santa Luisa del Mar, CA
Santa Luisa County Sheriff's Department	Sheriff	000-110-0000		sheriff@slcsd.com	21 Detroit Road Santa Luisa del Mar, CA
Santa Luisa County Fire Department	Fire Chief (B. Franklin)	000-200-0000		chief@slcfd.com	110 Gary Circle Santa Luisa del Mar, CA
Santa Luisa County Fire Department	Assistant Fire Chief	000-210-0000		afc@slcfd.com	110 Gary Circle Santa Luisa del Mar, CA
City of Santa Luisa del Mar Fire Department	Fire Chief	000-220-0000		chief@sldmfd.com	985 Kilometro Calle Santa Luisa del Mar, CA

					005 K'1 (C 11
City of Santa Luisa del Mar	Assistant Fire Chief,	000-230-0000	0000 afc@sldmfd.com		985 Kilometro Calle
Fire Department	Operations	000-230-0000		arewstamid.com	Santa Luisa del Mar, CA
City of Santa Luisa del Mar	C1 : C				67 East 8th Avenue
Police Department	Chief			chief@sldmpd.com	Santa Luisa del Mar, CA
Dillon Balias Department	Chief			abiat@dad.aam	715 13 th Street
Dillon Police Department	Chief			chier@dpd.com	Dillon, CA
Dillon Eine Denentmeent	Eine Chief	000 500 0000		Chief@dfd.com	400 5 th Street
Dillon Fire Department	Fire Chief	000-300-0000	Chief@dfd.com		Dillon, CA
Santa Luiga Water Works			CM@alway.com	300 Todos Santos Lane	
Santa Luisa water works	General Manager	Wanager 000-400-0000		GM@SIWW.com	Santa Luisa del Mar, CA
Cal Trang District 5 Office	District Director	805 540 2111	016 227 6000		50 Higuera Street
Cal Trails District 5 Office	District Director	003-349-3111	910-227-0000		San Luis Obispo
National Weather Service	Eric Dollat	90 5 099 ((14	905 099 ((10	Enia haldt@naaa aav	520 North Elevar Street
Los Angeles Office	Enc Boldi	803-988-0014	803-988-0010	Eric.boldi@noaa.gov	Oxnard, CA 93030
California Highway Patrol,					
City of Santa Luisa del Mar	Office	000-923-000			100 Houston Way
Office					
Santa Luisa Transportation	Transportation Director	000 000 000		director@altd.com	2 Houston Way
District	Transportation Director	000-900-000		unector@stta.com	Santa Luisa del Mar, CA

Section 4: Project Description

The Santa Luisa Dam is owned by the Santa Luisa Water Company (SLWC). It is located on the south side of Lake Elena. The dam and south side of the lake is about 5 miles north of the city limits of Santa Luisa del Mar. While the lake is only about 10 miles along State Route 186 southeast of Larson, the dam itself is 20 miles from Larson. The height of this earthen dam is 205 ft., while the length is 700 ft. The total freeboard and operating freeboard are both 5 ft. It has one gate-controlled spillway, which has not been designated as critical appurtenant structure by DSOD. DSOD has not identified any critical appurtenant structures connected to this dam.

In order to get to the dam from the south, take SR 186 and take the exit for Lake Elena. From the northwest, or coming from Larson, take SR 186 to the Lake Elena exit. The address of the dam is 2532 Skyline Drive, Santa Luisa, CA.

The water from Lake Elena flows through the Santa Luisa Dam to the Santa Luisa River, which flows through the City of Santa Luisa del Mar and eventually into the Pacific Ocean. If the dam were to have an emergency, depending on the severity, there would be flooding along the river. Additional flooding would occur throughout the city if the dam actually failed (see Part II: Inundation Maps).

Lake Elena, impounded by the Santa Luisa Dam, provides a variety of recreational uses for visitors, including boating, fishing, swimming, and camping. The lake surface area is 1,200 acres.

Section 5: EAP Response Process

5.1 Step 1: Incident Detection, Evaluation, and Emergency Level Determination

The Santa Luisa Water Company (SLWC) has personnel on-site at the Santa Luisa Dam 24 hours a day. The Dam Supervisor is the first line of defense against a dam failure. The Dam Supervisor is charged with visually inspecting the dam daily for any anomalies. It is expected that the routine inspections would discover potentially dangerous conditions before any danger of a dam failure occurs. Additionally, the facility has a computer monitoring system that constantly measures the level of the reservoir. If the level drops below a predetermined level, an alarm condition occurs and the automatic telephone paging system will alert the operator to the alarm. Upon receiving the automated page, the Dam Supervisor reports to the project to make an assessment of the alarm condition. In addition to the inspections by the Dam Supervisor and the computer monitoring system, the project can be monitored remotely using computers to connect with the project control system.

After identification of a dam threatening condition, the Dam Supervisor or a qualified engineer, will determine if there is sufficient time for additional investigation before declaring an emergency situation, assumes the responsibility to:

- Make an evaluation of the severity of the condition and the progressive nature of the failure; (i.e., how quickly will the dam be in danger of failing);
- Select an appropriate notification sequence based on the above decision.

Prior to activating the EAP, the Dam Supervisor will determine the Emergency Level. The following four Emergency Levels, named by the Federal Emergency Management Agency's (FEMA) Federal Guidelines for Dam Safety, have been adopted for this EAP and are listed in order of severity:



The Dam Supervisor will immediately attempt to classify the emergency according to the severity and urgency of the situation. Some of the factors to be considered when evaluating the emergency may include lake levels, weather conditions, location of the leak or seep, etc. Guidance for determining the Emergency Level is provided in Appendix A.

High Flow Operations

A high flow condition exists when there is no danger of dam failure, but natural or man-made flows in the river system may cause flooding downstream of the dam. During flooding, flows may cause water to overflow river banks and may cause unusually large spillway releases.

Non-Failure Emergency

A non-failure or possible hazardous situation developing exists when there is time to correct or modify an observed dam safety condition, which could escalate into dam failure if left unattended, but does not pose immediate danger.

Potential Failure

This is a situation where a failure may eventually occur, but pre-planned actions taken during certain events (such as major floods, earthquakes, evidence of piping, etc.) may moderate or alleviate failure. The Plant Operator is responsible for maintaining close surveillance of a potential hazardous situation until a qualified engineer can be summoned to assist. The Emergency Level may be terminated if proactive measures and/or further evaluation lead to a determination that no further elevated risk exists. On the other hand, there should be a smooth transition from Potential Failure to Imminent Failure, if the situation appears to be developing and cannot be controlled. The Plant Operator is also responsible for notification of officials on the Notification Flowchart whenever the emergency classification changes.

Imminent Failure

This emergency level signifies when no corrective action will stop the failure of the dam, that there is no longer any time available for corrective measures to prevent or mitigate the failure of the dam, or the dam has already failed. It is impossible to determine how long it will take for a failure to occur or for a complete breach to occur once failure begins. All emergency and evacuation measures will be initiated at once.

5.2 Step 2: Notification and Communication

Once a decision has been made to activate the EAP and the Emergency Level is defined, the EAP shall be activated and notifications made. Notifications shall be made in accordance with the Notification Flowcharts, Section 3.1. A contact list for the flowchart contacts, as well as other affected parties, is found in Section 3.2.

SLWC manually makes the phone calls to deliver the message. To assist in this step, this EAP includes pre-scripted messages to help the caller adequately describe the emergency situation to SLWC personnel, emergency management agencies, and other notification recipients (see Appendix C.1-C.4).

After notifications are made, the Dam Supervisor, or someone he designates, will complete the Contact Log (see Appendix D).

Regardless of the status, whether consistent or changing, the Dam Supervisor will make periodic status/incident updates to the contacts on the appropriate Notification Flowchart. If an Incident Commander (IC) has been identified for the incident, the IC, or Incident Command Post, will be added to the notification list.

Additionally, if there is an emergency on the lake, dam, or immediate downstream on the Santa Luisa River, the dam personnel have access to activate sirens to alert anyone nearby that there is

an emergency. These sirens will be activated in any situation that people on the water may be at risk. That means they will be activated for potential and imminent failures, and possibly during other times depending on the situation.

5.3 Step 3: Emergency Actions

In the event of an emergency situation at the Santa Luisa Dam, Santa Luisa Water Company personnel will coordinate dam operations and involve outside agencies as necessary. SLWC staff will work to mitigate the incident by determining what remediation actions to take (see Appendix F). Additionally, if needed, SLWC will send a liaison to the appropriate emergency operations center and/or Incident Command Post(s).

5.4 Step 4: Termination and Follow-up

SLWC, through the Dam Supervisor, will provide incident information to the responding federal, state, and local officials. Based on data received from the field, in conjunction with the conditions at the dam, the Dam Supervisor will determine when to terminate the EAP and convey that information to responding officials through the Notification Flowcharts. EAP Termination usually occurs once the dam incident has been resolved at the dam site – this does not signify termination of the incident or Incident Command.

The Dam Supervisor will follow the notification flowchart to alert all contacts of the plan's termination.

The Dam Supervisor will ensure that the Termination Log (see Appendix H) is completed, so that the conditions and decisions are documented.

Post incident, the EAP Coordinator at SLWC will set up and facilitate a meeting to review the incident and EAP implementation activities. The dam personnel involved with the plan implementation, as well as the responding agencies, should be present at the meeting. The following topics will be discussed and evaluated in an after action review:

- Events or conditions leading up to, during, and following the incident
- Significant actions taken by each participant and improvements for future emergencies
- All strengths and deficiencies found in the incident management process, materials, equipment, staffing levels, and leadership
- Corrective actions identified and a planned course of action to implement recommendations

The results of the after action review should be documented in an After Action Report (AAR) and used to revise the EAP. A template for an AAR is found in Appendix I.

Section 6: General Responsibilities

6.1 Dam Owner Responsibilities

As the owner of Santa Luisa Dam, Santa Luisa Water Company (SLWC) is responsible for detecting and evaluating dam safety incidents, classifying the incident, notifying emergency management authorities, and taking appropriate response actions.

6.1.1 Notification and Communication Responsibilities

SLWC, through the Dam Supervisor, will use its Notification Flowcharts and procedures when an incident occurs (see Sections 3 and 5.2). While it is not directly responsible for public notifications or issuing evacuation orders, the Dam Supervisor and SLWC personnel will work with local authorities in providing them situational awareness and assistance if needed.

6.1.2 Evacuation Responsibilities

SLWC, led by the Dam Supervisor, will evacuate its on-site personnel as needed, depending on the situation. SLWC is not responsible for issuing evacuation orders or evacuating the public. The Santa Luisa County Sheriff's Department will issue any official evacuations for the public.

6.1.3 Monitoring, Security, Termination, and Follow-up Responsibilities

The Dam Supervisor and other staff will monitor the dam and incident information as needed. The Dam Supervisor also oversees the security onsite.

When an incident has been resolved, the Dam Supervisor will officially terminate the EAP², and ensure the Termination Log is completed (see Appendix H).

Post-incident, the EAP Coordinator will facilitate a meeting with SLWC personnel involved with the EAP implementation, as well as the impacted jurisdictions. From this forum, the EAP Coordinator will consolidate the information and produce an after action report (AAR). The Coordinator will then use AAR to update/review the EAP.

6.1.4 EAP Coordinator Responsibilities

The EAP Coordinator's main responsibilities include:

- EAP revisions and distributions
- EAP exercises and trainings
- Organizing and facilitating after action meeting

² While SLWC is responsible for terminating the EAP, the Incident Commander, usually from Santa Luisa County Fire Department, has the authority to terminate incident response.

6.2 Local Public Safety Agencies' Responsibilities

The EAP has summary information for those jurisdictions that have a prominent role in responding to an incident affecting the Santa Luisa Dam. These summaries have been reviewed by each respective organization, and will be reviewed on an annual basis, to ensure their accuracy.

Santa Luisa County Sheriff's Office

The County Sheriff's Department, in coordination with the County Fire Department, has the primary responsibility in alerting and warning the public, with assistance from the Public Information Officer and Team, as deemed necessary. Alerting and warning the public may be accomplished through the Emergency Alert System, special broadcasts, or simply driving up and down the streets using the public address system.

During a dam incident, the County Sheriff's Department will:

- Report to the Incident Command Post, receiving briefing from Incident Commander (IC) or Operations Section Chief, if position is filled.
- In coordination with the County Fire Department, and as directed by the IC or Operations Chief, take the following actions:
 - Establish a perimeter to isolate the incident.
 - Control access to incident site, restricting access to emergency responders only.
- Through Dispatch, request that off-duty Deputies be recalled to duty.
- Request Dispatch to notify and request that the Operational Area Law Enforcement Mutual Aid Coordinator respond to the incident. Activate the Law Enforcement Mutual Aid System as required.
- If evacuation of affected areas is requested by the Incident Commander, take the following actions in coordination with the County Fire Department:
 - Identify safe evacuation routes.
 - Identify and establish adequate evacuation reception areas.
 - Request that the American Red Cross activate a shelter, if long-term evacuation is expected.
 - Provide security for evacuated areas.
- In coordination with the County Fire Department, take the following actions in response to a dam failure:
 - Develop and implement a traffic control plan, coordinating with County Engineering and/or California Department of Transportation for the use of street barricades.
 - Provide for crowd control.
- Provide regular status reports on all response actions to the Incident Commander or the Operations Section Chief, if position is filled.
- Ensure that all emergency public information is transmitted through the Incident Commander.

The Law Enforcement Mutual Aid Plan partners include: Santa Luisa del Mar Police Department, Santa Luisa County Sheriff's Department, California Highway Patrol, and Cal State Santa Luisa Campus Police.

Santa Luisa County Fire Department

The Santa Luisa County Fire Department will assume Incident Command (and will establish a Unified Command if needed) and establish an Incident Command Post (ICP).

The County Fire Department, in coordination with the County Sheriff's Department has the primary responsibility in alerting and warning the public, with assistance from the Public Information Officer and Team, as deemed necessary. Alerting and warning the public may be accomplished through the Emergency Alert System, special broadcasts, or simply driving up and down the streets using the public address system.

In a dam incident the County Fire Department will:

- Activate the Mutual Aid Agreement.
- Coordinate with County Sheriff's Department to isolate and deny entry to dam inundation area.
- Assist the County Sheriff's Department with evacuating areas within the dam inundation area and in the identification of safe evacuation routes to be used.
- Assist the County Sheriff's Department with identifying adequate evacuation reception areas. (If long-term evacuation of area is required, notify and coordinate with the Santa Luisa Chapter of the American Red Cross regarding the activation of a shelter.)
- Provide periodic status reports to Central Dispatch and the County Emergency Operations Center, if activated. At a minimum, provide information regarding response activities, injuries, and sustained damage.
- Ensure that rescue operations are established; include swift water rescues.
- Assist the County Engineering Department, in any way possible, with diverting flood waters or pumping out critical facilities that have become flooded.
- Coordinate emergency public information with County OES and the County PIO.

All departments within the county are participants in Operational Area Mutual Aid and are signatories of the Master Mutual Aid agreement. The County Fire Chief currently serves as the Area Fire Coordinator for Mutual Aid within the Santa Luisa Operational Area. The Fire Operational Area Mutual Aid partners include the fire departments from the cities of Santa Luisa del Mar, Dillon, Rivendell, Larson, and El Dorado.

Santa Luisa County Office of Emergency Services

The Santa Luisa County's Office of Emergency Services (OES) will provide emergency preparedness information from local, state, and federal sources to the Operational Area member jurisdictions and the citizens of Santa Luisa County. Further, the County OES will provide special emphasis on specific hazards on specified months throughout the calendar year, aiding in the disaster preparation and education of the communities within the Santa Luisa Operational

Area. Dam incidents may be addressed during the month of September, as it is already Flood Preparedness Month.

Additionally, the Santa Luisa County Office of Emergency Services maintains and keeps current the Emergency Alert List. The County OES also ensures that the Sheriff's Dispatch, the Emergency Services Director, and the Deputy Emergency Services Director have current copies of the Emergency Alert List. The County OES will also have a major role in proclaiming a local emergency.

During a dam incident, the County OES will:

- Upon notification and request to respond to any incident, report to the Incident Commander or the Operations Section Chief, if the position has been established, and obtain an incident briefing.
- Determine whether or not the County EOC will need to be activated. If not, assist the Incident Commander by assuming any of the ICS positions.
- Provide OES status report to Central Dispatch.
- Verify other County department resource status reports from Central Dispatch.
- Establish communications with the County Administrative Officer and other key County Officials, as necessary, providing an assessment of the unfolding situation.
- Establish communications or make contact with Operational Area member jurisdictions and special districts.
- Make all necessary preparations to activate the County EOC in the event activation is required or requested.
- Based on the situation, recommend an emergency proclamation to the County Administrative Officer and the Santa Luisa County Board of Supervisors.
- Coordinate emergency public information with the County Public Information Officer.
- Coordinate with the Cal OES Southern Region, following the Standardized Emergency Management System (SEMS).

Santa Luisa County Engineering Department

During any incident, the County Engineering Department supports emergency response operations under the Operations Section and provides guidance for initial size-up, rapid needs, and preliminary disaster safety reports on the areas affected, damaged, and destroyed during an emergency event.

During a dam incident, the Department would:

- Report to the Incident Command Post and obtain an incident briefing from the Incident Commander or the Operations Section Chief, if the position is established.
- Establish communications and coordinate efforts with the Santa Luisa Water Service Company, the operator of the dam.
- Assess the damage sustained to Skyline Drive and determine if it is structurally safe to use.
- In any way possible, divert flood waters.

• Assist the County Fire Department in pumping water out of critical facilities that have become flooded.

Santa Luisa Water Works Facility

The Santa Luisa Water Works Facility is on the notification flowchart as the facility is immediately downstream from the dam. In the case of an incident, this facility's primary focus would be on the safety and security of the employees and facility.

Neighboring Area Public Safety Agencies

The City of Santa Luisa del Mar has mutual aid agreements for the city police department and fire department. In a dam incident, these agreements would be activated. The surrounding cities (Larson, Rivendell, El Dorado, and Dillon) are also a part of the mutual aid agreements and could potentially be part of response to an incident. The City of Santa Luisa del Mar OES would assist the County OES during a dam incident.

Other Public Safety Agencies

The California Governor's Office of Emergency Services (Cal OES) and the Department of Water Resources (DWR), Division of Safety of Dams (DSOD) co-manage the state's dam safety program. DSOD is responsible for the review and approval of inundation maps while Cal OES is responsible for overseeing the review, approval, and ongoing activities associated with EAPs under California Government Code Section 8589.5.

California Governor's Office of Emergency Services (Cal OES)

The mission of Cal OES is to protect lives and property, build capabilities, and support our communities for a resilient California. Cal OES plays an assortment of roles in managing the dam safety program and related emergencies.

Dam Safety Planning Division

The division is responsible for reviewing and approving dam owners' Emergency Action Plans (EAP). This process includes division outreach and technical assistance to dam owners and local emergency management personnel. The Cal OES Dam Safety Planning Division may also provide guidance to local public safety agencies with regard to incorporating EAPs into their existing all-hazards key response and mitigation plans. The division will also participate in the annual review and update of the EAP.

California State Warning Center (CSWC)

The CSWC is staffed 24 hours per day, 365 days per year, to provide round-the-clock situational awareness. The mission of the CSWC is to be the central information hub for statewide emergency communications and notifications. It is equipped with a number of telephone, data, and radio systems. The majority of these systems are used on a day-to-day basis, while others are available for use in an emergency or as conditions require. The CSWC has the responsibility to

receive, coordinate, verify, and disseminate information pertaining to events which occur within California or that could affect California.

The CSWC automatically makes verbal notification to the Downstream County Warning Point.

Immediate notifications would be provided to:

- Department of Water Resources, Division of Safety of Dams;
- National Weather Service;
- Cal OES Dam Safety Planning Division
- Cal OES Duty Officers;
- Department of Water Resources Flood Operations Center;
- State Parks and Recreation; and/or
- Other agencies/departments as dictated by the event or required by law.

California Department of Water Resources (DWR), Division of Safety of Dams (DSOD)

The mission of DSOD is to protect people against the loss of life and property due to dam failure. The California Water Code entrusts this regulatory power to the Department of Water Resources, which delegates the responsibility to DSOD. Section 6110 of the Water Code directs the Department to immediately employ any remedial means necessary to protect life and property if either: (a) the condition of the dam is so dangerous to the safety of life or property as to not permit time for the issuance and enforcement of an order relative to maintenance or operation, or (b) passing or imminent floods threaten the safety of any dam or reservoir. Section 6111 of the Water Code states that in applying the remedial means "the department may, in emergency, do any of the following: (a) lower the reservoir; (b) completely empty the reservoir; (c) take such other steps as may be essential to safeguard life and property." In the event of an emergency at the dam, DSOD actions could include, but are not limited to:

- Advising the dam owner's/operator's representative of remedial actions to take
- Ordering the dam owner's/operator's representative of remedial actions to take
- Assuming control of the dam if necessary to safeguard life and property
- Advising the dam owner's/operator's representative of the emergency level determination
- Inspecting the dam during and after the emergency
- Design review and approval of emergency repairs
- Acting as a dam technical specialist in the State Operations Center (SOC), or other emergency operations center (EOC)

Additionally, per Water Code Sections 6160 and 6161, DSOD is responsible for the review and approval of inundation maps. The California Code of Regulations, Title 23, Division 2, Chapter 1, Article 6 defines the specific requirements of the inundation maps.

Section 7: Preparedness

7.1 Surveillance and Monitoring

Surveillance at the Santa Luisa Dam is performed by the Santa Luisa Water Company (SLWC) personnel that are onsite 24 hours a day. SLWC does not employ security personnel at this time. There are several surveillance cameras located at the project that can be viewed both onsite and off. The Dam Supervisor will immediately notify SLWC Headquarters and the Santa Luisa County Sheriff's Department if an unstable condition is detected

The Dam Supervisor and onsite engineers are also monitoring Lake Elena's water levels. When the water level is too low or too high for unknown reasons, onsite staff alert SLWC Headquarters to work on mitigating any dam issues that may arise.

The facility also has a computer monitoring system that constantly measures the level of the reservoir. If the level drops below a predetermined level, an alarm condition occurs and the automatic telephone paging system will alert the operator to the alarm. Upon receiving the automated page, the Dam Supervisor reports to the dam to assess the alarm condition. In addition to the inspections by the Dam Supervisor and the computer monitoring system, the project can be monitored remotely using computers to connect with the project control system.

The remote monitoring systems at the dam are critical to identifying and responding to a dam emergency. Timely implementation of the EAP is essential.

7.2 Evaluation of Detection and Response Timing

The Santa Luisa Dam is in a remote area that is a popular tourist and recreation location. Timely identification and reaction to an incident or an actual or impending failure is essential. Timely implementation of the EAP is essential and it is an emphasis item for SLWC as well as the local public safety agencies. The time from the initial detection of an incident through the determination of the emergency level and execution of the notifications to the appropriate entities, should take no more than twenty minutes.

7.3 Access to the Site

The main road to access the dam is the State Road 186, both from the north and south. From SR 186, the direct path to the dam is the Lake Elena exit, then take Skyline Drive to the dam.

7.4 **Response during Periods of Darkness**

The site has lighting, so the Santa Luisa Dam personnel should be able to operate normally during periods of darkness. If the electricity fails at the dam, there is a generator that can operate all the necessary functions of the dam. Additionally, the spillway can be operated manually onsite.

7.5 **Response during Weekends and Holidays**

As the Santa Luisa Dam is staffed 24 hours a day, there is still staff at the dam during weekends and holidays, as these are normal workdays at the dam.

7.6 **Response during Adverse Weather**

Depending on the weather situation, including the severity, those accessing the dam may have to use an alternate route. If the assistance is coming from the City of Santa Luisa del Mar, one may not be able to drive directly to the dam, and may have to circle around and drive first to Larson, or one of the other neighboring towns, and then approach the dam from the northwest.

7.7 Alternative Sources of Power

If the electricity fails at the dam, there is a generator that can operate all the necessary functions of the dam. There is enough fuel on-site to run all critical operations for 72 hours. Additionally, the spillway can be operated manually on-site.

7.8 Emergency Supplies and Information

If SLWC has to order any emergency supplies, the company has contracts with local vendors. For a list of these vendors and contact information, see Appendix G.

7.9 Stockpiling Materials and Equipment

SLWC has a generator onsite with enough diesel fuel to operate necessary dam functions for 48 hours. The generator is tested annually. The dam site also has general maintenance equipment and tools. In case assistance cannot reach the dam for a period of time, SLWC has a 36-hour food and water supply stockpiled at the dam.

7.10 Coordination of Information

The Dam Supervisor will work with emergency personnel to keep them up-to-date on any situation involving the Santa Luisa Dam. The Dam Supervisor may designate a staff member to take the role of liaison, so that the Dam Supervisor can dedicate his attention to the incident. If the incident is large enough, the Santa Luisa Water Company may send a liaison to the dam site, the Incident Command Post, or public safety unified command, depending on the circumstances.

7.11 Training and Exercise

The SLWC EAP Coordinator manages the training and exercising of the Santa Luisa EAP. Below some of the information for these activities are listed.

EAP Training

The EAP Coordinator gives an introductory training to new SLWC dam personnel regarding the EAP and that staff person's role in an emergency. The Coordinator also facilitates an annual EAP Workshop for SLWC staff and stakeholders to review the EAP.

Exercise

On an annual basis the EAP Coordinator organizes the notification call down drill, which is required by California Government Code Section 8589.5 (see Appendix J for more information). During this exercise, the on-site personnel conduct a test of calling the numbers on the Notification Flowcharts to ensure their accuracy. Additionally, the staff will also verify the secondary and stakeholder contact information in the Contact Table. The EAP Coordinator will then make sure that the EAP contact information is updated, and updated pages will be sent to Plan Holders (see Appendix L). The EAP Coordinator will then send an EAP Status Report (see Appendix K) to the Cal OES Dam Safety Planning Division to demonstrate that SLWC has complied with the legislative mandate for an exercise.

Following the exercise, the EAP Coordinator will fill out an EAP Status Report (see Appendix K). This Report will then be sent to the Dam Safety Planning Division at Cal OES to verify that the exercise occurred.

7.12 Alternative Systems of Communication

At the dam, there is a landline and internet, so email is a major form of communication. There are also a couple satellite phones and walkie-talkies.

7.13 Public Awareness and Communication

SLWC has held public outreach meetings for the communities downstream from the Santa Luisa Dam. These meetings educated people on the meanings of warning sirens on the lake and immediately downstream.

SLWC is also works with Citizens Emergency Response Team (CERT) out of the City of Santa Luisa del Mar. SLWC representatives attend the bi-annual CERT training and maintain a relationship with the City's Fire Department, which administers the CERT program.

Section 8: Plan Maintenance

8.1 Plan Review

The EAP Coordinator will review/update the EAP notification contacts on a quarterly basis, or when notified of an update. It is critical to maintain current contact information.

Additionally, the EAP in its entirety will be reviewed annually. The plan may also be modified as a result of post-incident analyses and/or post-exercise critiques. Additionally, SLWC will begin preparing the updated inundation maps in nine years (2027), so that we can meet the 10-year update deadline, as stated in California Water Code Section 6161.

To notify SLWC of a revision to the Plan, please contact:

Lisa Clark, EAP Coordinator Santa Luisa Water Company 900 East Todos Santos Lane Santa Luisa del Mar, CA <u>lclark@slwc.com</u> 000-000-0003

8.2 Distribution

Copies of the EAP are distributed to local public safety agencies and those jurisdictions that may be impacted by an incident at Santa Luisa Dam. Please see Appendix L for a list of all Plan Holders.

To request a copy of the Emergency Action Plan for Santa Luisa Dam, please contact:

Lisa Clark, EAP Coordinator Santa Luisa Water Company 900 East Todos Santos Lane Santa Luisa del Mar, CA <u>lclark@slwc.com</u> 000-000-0003

PART II: Inundation Maps

(Inundation Maps of the Santa Luisa Dam are not included in this copy of the EAP; but dam owners need to have inundation maps for their dams and critical appurtenant structures, following DSOD regulations on mapping)

DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836 SACRAMENTO, CA 94236-0001 (916) 653-5791



Mr. Anthony Sanchez General Manager Santa Luisa Water Company 900 East Todos Santos Lane Santa Luisa del Mar, California 12345

Santa Luisa Dam, No. 0-000 Santa Luisa County

Dear Mr. Sanchez:

We have reviewed the inundation map dated October 17, 2016, and submitted with a letter dated April 20, 2018, for Santa Luisa Dam. We have determined that the maps meet the requirements of Title 23, Division 2, Chapter 1, Article 6 of the California Code of Regulations. Therefore, the inundation maps associated with the failure of the dam is approved.

The approved maps will be made publicly available as required by section 6161(c) of the California Water Code. An emergency action plan (EAP) based on the approved inundation maps must now be submitted to the California Governor's Office of Emergency Services (Cal OES) for their review and approval. Upon Cal OES approval, please provide us with an electronic and hard copy of the approved EAP per section 6161(b)(3) of the CA Water Code.

We have identified that Santa Luisa Dam has no critical appurtenant structures as defined in section 6002.5 of the CA Water Code.

Pursuant to section 6161(e) of the CA Water Code, the EAP and inundation maps must be updated no less frequently than every 10 years, and sooner under conditions that include, but are not limited to, the following: (1) a significant modification to the dam or a critical appurtenant structure, as determined by the department, or (2) a significant change to downstream development that involves people and property. Mr. Sanchez

Page 2

We recommend that you submit your next update at least six months prior to the expiration of your map on October 17, 2026, for our approval to meet the 10-year statutory requirement. If you have any questions or need additional information, you may contact Design Engineer James Portal at (916) 000- 0000 or Program Manager Ariya Balakrishnan at (916) 999-9999.

Sincerely,

Sharon K. Tapia, Chief Division of Safety of Dams

cc: Mr. José Lara, Chief Dam Emergency Action Planning Division California Governor's Office of Emergency Services 3650 Schriever Avenue Mather, California 95655

PART III: Appendices

Appendix A: Guidance for Emergency Levels

Event	Situation	Emergency level
	Reservoir water surface elevation at auxiliary spillway crest or spillway is flowing with no active erosion	Non-failure
Earth spillway	Spillway flow that could result in flooding of people downstream if the reservoir level continues to rise	High Flow
flow	Spillway flowing with active gully erosion	Potential failure
	Spillway flowing with an advancing headcut that is threatening the control section	Imminent failure
	New seepage areas in or near the dam	Non-failure
Seepage	New seepage areas with cloudy discharge or increasing flow rate	Potential failure
	Increasing and rapidly developing seepage with cloudy discharge	Imminent failure
Simbled	Observation of new sinkhole in reservoir area or on embankment	Potential failure
Sinkholes	Rapidly enlarging sinkhole	Imminent failure
Embankment	New cracks in the embankment greater than 1/4 inch wide without seepage	Non-failure
cracking	Cracks in the embankment with seepage	Potential failure
Embankment	Visual movement/slippage of the embankment	Non-failure
movement	Sudden or rapidly proceeding slides of the embankment slope	Imminent failure
Instruments	Instrumentation readings beyond predetermined values	Non-failure
	Measurable earthquake felt or reported on or within 50 miles of the dam	Non-failure
Earthquake	Earthquake resulting in visible damage to the dam or appurtenances	Potential failure
	Earthquake resulting in uncontrolled release of water from the dam	Imminent failure
	Verified bomb threat that, if carried out, could result in damage to the dam	Potential failure
Security inreat	Detonated bomb that has resulted in damage to the dam or critical appurtenant structure and caused one of the above imminent failure situations	Imminent failure
	Damage to dam or appurtenance with no impacts to the functioning of the dam	Non-failure
Sabotage/ vandalism	Modification to the dam or appurtenances that could adversely impact the functioning of the dam	Potential failure
	Damage to dam or appurtenances that has resulted in seepage flow	Potential failure
	Damage to dam or appurtenances that has caused one of the above imminent failure situations	Imminent failure

Appendix B: Dam Incident Report

DAM INCIDENT – CALIFORNIA STATE WARNING CENTER

EVENT TYPE:	□ DRILL	□ ACTUA	L EVENT		
DATE:				TIME:	
		CALLER IN	FORMATION	I	
NAME/AGENCY:			PHONE #:		
ALTERNATE CONT	ГАСТ:		PHONE #:		
		DAM INFO	ORMATION		
DAM NAME:			DSOD DAM	AI #:	FERC:
DSOD HAZARD CL	ASSIFICATION	N:			
		LOCATIO	N OF DAM		
DSOD REGION:	□ NORTHER	N 🗆 CENTR	AL 🗆 SOUTI	HERN	
PHYSICAL ADDRES	SS:				
LATITUDE:			LONGITUDE:		
COUNTY:			DOWNSTREAM	1 JURISDICT	TONS:
NEAREST CITY OR	R POPULATED	AREA:			
NEAREST OR AFFE	ECTED HIGHW	AY OR CROSS	ROADS:		
RIVER OR CREEK	THAT FLOWS	INTO RESERVO	DIR:		
		SITU	ATION		
ACTIVATION OF E.	AP:	□ No			
EMERGENCY LEVEL: ☐ High Flow ☐ Non-Failure ☐ Potential Failure ☐ Imminent Failure					
EMERGENCY TYPE:					
Earthquake		Outle	et System Failure	E	Sinkholes
Embankment Crac	cking or Settleme	ent 🗆 Sabo	tage/Vandalism	E	Storm Event
Embankment Mov	vement	□ Sand	Boils	C	Other: List Below
Erosion of Spillwa	Erosion of Spillway				
Instrumentation Reading (Abnormal)					
OTHER:					
RESERVOIR LEVEL:	🗖 Full	D Parti	ally Full	Empty	
	Approximate %	6 Full (Acre-Feet)	:		
WHEN/HOW					
EVENT WAS					
OBSERVER IN		7.5.7			
POSITION:	⊔ Yes □	J No			

REPORTING PERSON NOTIFICATION					
Was the County Sheriff Notified by Reporting Person?	YES	NO			
Were Downstream Jurisdictions Notified by Reporting Person?					

Appendix C.1: Notification Messages

High Flow Operations

The Santa Luisa Water Company has activated the Santa Luisa Dam Emergency Action Plan.

We are notifying local emergency management agencies and entities along the Santa Luisa River of changes in releases from Lake Elena. The current emergency level falls under High Flow Operations. The Santa Luisa Dam is NOT in danger of failing.

The current release from Lake Elena is _____ cfs and will increase to _____ cfs by _____ (time) _____ (date). These flow increases will be gradual over time. Please note that flows in the Santa Luisa River may exceed this value due to other natural flows.

SLWC will provide updates as appropriate of any changes in flows, conditions at the dam, changes in the Emergency Level, and upon termination of this event.

If you serve in an emergency management role and need additional information, please contact the SLWC Dam Supervisor at 000-000-0002.

Appendix C.2: Notification Messages

Non-Failure Emergency

The Santa Luisa Water Company has activated the Santa Luisa Dam Emergency Action Plan.

The Emergency Level at this time is a Non-Failure Emergency. Again, this is a Non-Failure Emergency.

At _____ (time) on _____ (date), SLWC verified, determined, or observed that:

The Santa Luisa Water Company is in the process of contacting the appropriate staff and partnering agencies to address the situation.

SLWC will provide updates as appropriate of any changes in flows, conditions at the dam, changes in the Emergency Level, and upon termination of this event.

If you serve in an emergency management role and need additional information, please contact the SLWC Dam Supervisor at 000-000-0002.

Appendix C.3: Notification Messages

Potential Failure

The Santa Luisa Water Company has activated the Santa Luisa Dam Emergency Action Plan.

The Emergency Level at this time is Potential Failure.

At _____ (time) on _____ (date), SLWC verified, determined, or observed that:

Based on this information, SLWC has activated the EAP and determined the appropriate Emergency Level to be Potential Failure.

The SLWC is taking remediation measures to reduce the potential for failure.

SLWC will provide updates as appropriate of any changes in flows, conditions at the dam, changes in the Emergency Level, and upon termination of this event. Please remain on alert for any further communications from SLWC or your local emergency management agencies.

If you serve in an emergency management role and need additional information, please contact the SLWC Dam Supervisor at 000-000-0002.

Appendix C.4: Notification Messages

Imminent Failure (or Dam has Failed)

The Santa Luisa Dam's Emergency Level is Imminent Failure.

The Santa Luisa Water Company has activated the Santa Luisa Dam Emergency Action Plan to respond to this.

Again, the Emergency Level at this time is Imminent Failure.

At _____ (time) on _____ (date), SLWC verified, determined, or observed that:

Based on this information, SLWC has determined the appropriate Emergency Level to be Imminent Failure.

The SLWC has determined that no further measures can be taken to prevent the failure of and release of water behind the Santa Luisa Dam. SLWC personnel are being directed to find appropriate locations and shelter from the dam breach and failure.

SLWC will provide updates as appropriate of any changes in flows, conditions at the dam, changes in the Emergency Level, and upon termination of this event. Please remain on alert for any further communications from SLWC or your local emergency management agencies.

If you serve in an emergency management role and need additional information, please contact the SLWC Dam Supervisor at 000-000-0002.

Appendix D: Contact Log

Dam Name: Santa Luisa Dam	Date:
NID #: CA0000	DSOD Dam #: 0.000
DSOD Region: Southern Region, Area 9	County: Santa Luisa County
Emergency Level:	Incident/Exercise:

After determining the emergency level, immediately contact the following agencies/entities. The person making the contact should initial and record the time of the call and who was contacted at each agency/entity.

Agency/Entity	Person Contacted	Contact Time	Contacted By

Appendix E: Emergency Incident Log

Name:			Job Title:	
Incident Start Date:	Incident Start Date:		Incident Start Time:	
Incident Description:				
Initial Incident Level:				
Incident Detection:				
When did you detect o	or ot?			
How did you detect or learn about the incider	nt?			
LOG	ALL NOTIFIC.	ATION AND	ACTIVITY IN THE TABLE	BELOW
Date	Time	Action	n/Incident Progression	Action Taken By

Appendix F: Possible Remediation Actions

Event	Possible Remediation Actions		
Earthquakes	Inspect dam and evaluate the damage sustained and the potential danger of failure. Check for seepage, cracks, displacements, and settlement. Inspect outlet works and spillways. Evaluate instrumentation.		
Embankment Cracking or Settlement	Lower the water level by releasing it through outlet or by pumping or siphoning. If necessary, restore freeboard. Lower water level in reservoir to a safe level; continue operating at a reduced level until repairs can be made.		
Embankment Movement	Lower water level in the reservoir by opening all gates and valves at a rate and to an elevation that is considered safe given slide condition. If outlet is damaged or blocked, pumping or siphoning may be required.		
Embankment Overtopping	If the water in the reservoir is no longer rising, place sandbags along the low areas of the top of the dam to control wave action, reduce the likelihood of flow concentration during minor overtopping, and to safely direct more water through the spillway. Cover weak areas of the top of the dam and downstream slope with riprap, sandbags, plastic sheets, or other materials to provide erosion-resistant protection.		
Erosion of Spillway	Provide temporary protection at the point of erosion by placing sandbags, riprap materials, or plastic sheets weighted with sandbags. Consider pumps and siphons to help reduce the water level in the reservoir. When inflow subsides, lower the water level in the reservoir to a safe level; continue operating at a lower water level to minimize spillway flow.		
Fire	Implement fire procedures (if applicable).		
Abnormal Instrumentation Reading	Conduct daily inspections of the dam. Check and record reservoir elevation, rate at which reservoir is rising, weather conditions (past, current, forecasted), discharge conditions of creeks/rivers downstream, and new or changed conditions associated with this event. Evaluate accuracy of instrumentation.		
Outlet System Failure	Implement temporary measures to protect the damaged structure, such as closing the inlet. Lower the water level in the reservoir to a safe elevation, possibly by using pumps or siphons. Consider the severity of flow through outlet and increased flows in determining emergency level.		
Sabotage or Vandalism	Contact law enforcement to help evaluate the situation. If embankment or spillway has been damaged, provide temporary protection in damaged area. Lower water in reservoir by using outlet or pumps and siphons if necessary. If water supply has been contaminated, immediately close all inlets to water supply system and notify appropriate authorities.		

Event	Possible Remediation Actions	
Sand Boils	Determine location and size of affected area. Estimate discharge rate and nature of discharge (cloudy or clear seepage). Provide temporary protection at point of erosion by placing sandbags around boil area to confine flow. If necessary, lower water level in reservoir to a safe level until permanent repairs can be made.	
Security Threats	Contact law enforcement.	
Seepage, Springs, Piping	If the leak originates from within the reservoir or the upstream embankment, plug the flow with available material such as hay bales, bentonite, or plastic sheeting. Lower water level in the reservoir until flow decreases to a non-erosive velocity or until it stops. Place an inverted filter (a protective sand and gravel filter) over the exit area to hold materials in place. Continue lowering the water level until a safe elevation is reached; continue operating at a reduced level until repairs are made. Stabilize damaged areas on the downstream slope by weighting the toe area below the slide with additional soil, rock, or gravel.	
Sinkholes	Conduct an immediate engineering exploration to determine cause of sinkhole, and to evaluate damage sustained and potential for failure. Determine exit point of flowing water. Implement temporary measures to protect damaged structure, such as closing inlet and lowering water level in reservoir to a safe level until permanent repairs can be made.	
Storm Event	Conduct daily inspections of dam. Check and record the reservoir elevation, rate at which reservoir is rising, weather conditions (past, current, forecasted), discharge conditions of creeks/rivers downstream, and new or changed conditions associated with this event. If heavy spillway flows are expected to cause downstream damage even though the dam is not in danger, take appropriate emergency action for downstream facilities and people.	

Appendix G: Vendor Contacts

Items	Title/Organization	Phone Number	Address
Building Materials	Home Improvement Center	000-000-1000	22 Wyoming Santa Luisa del Mar, CA
Building Materials	SLDMar Soil and Topsoil Corp.	000-000-2000	902 E 1 st Street Santa Luisa del Mar, CA
Bulldozing and Equipment	Montgomery – Python Bulldozing	000-000-3000	861 E 2 nd Ave Santa Luisa del Mar, CA
Bulldozing and Equipment	Santa Luisa Backhoe Service	000-000-4000	816 Kern Street Santa Luisa del Mar, CA
Communications	Santa Luisa Telecommunications	000-000-5000	1411 L Street Santa Luisa del Mar, CA
Concrete Ready- Mixed	McDubb Building Materials	000-000-6000	1248 Lassen Santa Luisa del Mar, CA
Generators- Commercial & Industrial	Honda Generators of Santa Luisa	000-000-7000	611 J Street Santa Luisa del Mar, CA
Generators- Commercial & Industrial	Kohler Generator Sets of SLDM	000-000-8000	271 I Street Santa Luisa del Mar, CA
Restaurants/Caterers	Bill's Catering Service	000-000-9000	342 Kilometro Calle Santa Luisa del Mar, CA
Restaurants/Caterers	Flading Catering Service	000-000-1100	93 WestleyAn Rd. Santa Luisa del Mar, CA

Appendix H: Emergency Termination Log

Dam Name: Santa Luisa Dam	County: Santa Luisa County		
Dam Location: 2532 Skyline Drive Santa Luisa, CA (south side of Lake Elena)	Stream/River: Santa Luisa River		
Date/Time:			
Weather Conditions:			
General Description of Emergency Situation:			
Area(s) of Dam Affected:			
Extent of Damage to Dam and Possible Causes	:		
Effect on Dam Operation:	Effect on Dam Operation:		
Initial Reservoir Elevation/Time:			
Maximum Reservoir Elevation/Time:			
Final Reservoir Elevation/Time:			
Description of Area Flooded Downstream/Damage/Loss of Life:			
Justification for Termination of Dam Safety Emergency:			
Other Data and Comments:			
Report Prepared By (Printed Name and Signature): Date:			

Appendix I: After Action Report Template

Background

Event Details

Type of Event: Location: Incident Period: Brief Description of Event:

Response Activities

Summary of Successes

Summary of Recommended Improvements

Organizations Contributing to this Report

Appendix J: Exercises

Annual Call-Down Drill

During the call-down drill, the personnel at the dam will begin making the calls to those on the Notification Flowcharts. The person assigned to make the calls will begin with the High Flow-Non-Failure Notification Flowchart and alert the people called that this is only an exercise. The caller will then move on to the Potential Failure and then Imminent Failure Notification Flowcharts.

Once those calls are completed and any new contact information is recorded, the caller will then go through the Contact Table and test all the numbers and email addresses in the table.

After all these "test" notifications are made, any updates/changes that the caller receives will be recorded and emailed to the EAP Coordinator. The Coordinator will then update the information in the EAP, and follow the revisions and distributions procedures.

Appendix K: EAP Status Report

EAP Status Report for Santa Luisa Dam, DSOD No. 0.000

Annual EAP Review Performed:

Annual Update Sent to Plan Holders:

Annual Notification Exercise:

Prepared by:

 Send this document, or something similar, to the Cal OES Emergency Action Planning Division: Jose Lara, Chief
 Dam Safety Planning Division
 3650 Schriever Avenue
 Mather, CA 95655

OR:

EAP@caloes.ca.gov

Appendix L: Record of Plan Holders

Copy Number	Organization	Person Receiving Copy	
1	Santa Luisa Water Company	EAP Coordinator	
2	Santa Luisa Water Company	Dam Supervisor	
3	Santa Luisa Water Company	Maintenance Supervisor	
4	Santa Luisa Water Company	General Manager	
5	Santa Luisa County Fire Department	Chief	
6	Santa Luisa County Sheriff's Office	Sheriff	
7	Santa Luisa County Office of Emergency Services	Director	
8	Santa Luisa County Office of Emergency Services	Emergency Services Coordinator	
9	Santa Luisa County Engineering Department	Director	
10	City of Santa Luisa del Mar Police Department	Chief	
11	City of Santa Luisa del Mar Fire Department	Chief	
12	City of Santa Luisa del Mar Fire Department	Assistant Fire Chief, Operations	
13	City of Santa Luisa del Mar OES	OES Coordinator	
14	California Governor's Office of Emergency Services	Chief, Dam Safety Planning Division	
15	Department of Water Resources	Division of Safety of Dams	
16	Department of Water Resources	Flood Operations Center	
17	City of Santa Luisa del Mar Fire Department	Assistant Fire Chief, Operations	
18	Dillon Fire Department	Fire Chief	
19	Santa Luisa Water Works	General Manager	

20	Cal Trans District 5 Office	District Director
21	National Weather Service Los Angeles Office	Eric Boldt
22	California Highway Patrol, City of Santa Luisa del Mar Office	Area Commander

Appendix M: Signature Page

The following people participated in the planning process for the Emergency Action Plan for the Santa Luisa Dam:

Name, Title	Title/Organization	Signature	Date
Chief	City of Santa Luisa del Mar Fire Department	(rie for	Dec. 20,201
B. Franklin, Chief	Santa Luisa County Fire Department	B. Frankink	12/20/17
Chief	City of Santa Luisa del Mar Police Department	Drain	1-19-18
Sheriff	Santa Luisa County Sheriff's Department	N Sum	12/29/17
Director	Santa Luisa County Engineering Department	AS. Housen	1-4-18
Director	Santa Luisa County Office of Emergency Services	Amonlast	1/4/18
OES Coordinator	City of Santa Luisa del Mar Office of Emergency Services	Magar	12/28/17
Director	City of Santa Luisa del Mar Public Works Department	Anwanet	1/12/18
Michael Goth, Disaster Program Manager	City of Santa Luisa del Mar American Red Cross	Winh Got	12-/22/17
Timothy Gubbins, District Director	California Department of Transportation, District 5 Office	T. Carlo	1-10-18.
Captain William Wright, Area Commander	California Highway Patrol, City of Santa Luisa del Mar Area Office	W. Um	12-120/17
District Director	Central Coast Edison Company, Santa Luisa District	Ambra	/12-19-17
Donna Thames, Superintendent	Santa Luisa Unified School District	Dan Three	Jon. 17, 2018

Appendix N: Acronym List

AAR	After-Action Report
Cal OES	California Governor's Office of Emergency Services
CSTI	California Specialized Training Institute
CSWC	California State Warning Center
DSOD	Division of Safety of Dams
DWR	Department of Water Resources
EAP	Emergency Action Plan
IC	Incident Commander
ICP	Incident Command Post
OES	Office of Emergency Services
SLWC	Santa Luisa Water Company

Appendix O: Revision Log

Date	Sections Reviewed or Revisions Made	By Whom
12/5/16	EAP created	Lisa Clark, EAP Coordinator
4/17/17	Notification Flowcharts updated	Lisa Clark, EAP Coordinator
6/20/17	Updated: Section 6.2 – Local Public Safety Agencies' Responsibilities with help from those agencies	Lisa Clark, EAP Coordinator
10/05/17	Notification Flowcharts updated	Lisa Clark, EAP Coordinator
12/15/17	 Updated: Purpose statement Section 8 – Plan Maintenance Record of Plan Holders Signature Page Added: Section 7 – Preparedness "Dam Contact Information" at the front of the EAP EAP Status Report 	Lisa Clark, EAP Coordinator
4/17/18	Notification Flowcharts updated	Lisa Clark, EAP Coordinator
7/14/18	Added Key Dam Information pageMoved Revision Log to Appendix	Lisa Clark, EAP Coordinator



LISA CLARK EAP COORDINATOR

Santa Luisa Water Co. 900 East Todos Santos Ln. Santa Luisa del Mar, CA

(000) 000-0003

May 5, 2018

EAP Status Report for Santa Luisa Dam, DSOD No. 0.000

Annual EAP Review Performed:

Santa Luisa Water Company finalized our annual review in April 2018. We updated our Notification Flowcharts and Contact Table. This followed some major updates that we made in December 2017, following new California dam legislation. Our plan is to finalize our annual review every year in April.

Annual Update Sent to Plan Holders:

Lisa Clark, our EAP Coordinator, sent the finalized draft of our EAP to our Plan Holders. As this plan has not yet been approved by Cal OES, we are waiting for Cal OES approval before sending out an update.

Once approved, we will send out updated pages or a complete EAP, depending on the number of changes.

Annual Notification Exercise:

While creating our EAP, Lisa Clark oversaw our annual notification call-down drill. On March 15, 2018, Lisa called all of the contacts on all of the flowcharts, as if using the Flowcharts during an actual incident. Additionally, she verified all of the contact information in the Contact Table. All of the information was accurate, so no contact updates were needed.

Prepared by: Lisa Clark, EAP Coordinator