



State High-Risk Program

Poorly Maintained Dams and Levees Continue to Pose a Risk to Public Safety

October 2026

REPORT 2025-603





CALIFORNIA STATE AUDITOR

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October 13, 2026
2025-603

The Governor of California
President pro Tempore of the Senate
Speaker of the Assembly
State Capitol
Sacramento, CA 95814

Dear Governor and Legislative Leaders:

State law authorizes my office to establish a high-risk government agency audit program for the purpose of identifying, auditing, and issuing reports on state issues that have major challenges associated with their economy, efficiency, or effectiveness. Since 2013, the State's deteriorating water infrastructure has been a recurring item on our state high-risk list. Accordingly, my office conducted an audit of the oversight of dams and levees by the Department of Water Resources (Water Resources), Governor's Office of Emergency Services (Cal OES), and the Central Valley Flood Protection Board. Overall, we found that poorly maintained dams and levees continue to pose a risk to public safety.

Existing law does not require dam owners to identify and set aside the financial reserves necessary to maintain their dams in satisfactory condition. Consequently, some owners of dams that require repairs or improvements to meet state safety standards have delayed those activities because they do not have the financial resources. Such delays increase the risk that these dams may fail, which could endanger hundreds of thousands of people and billions of dollars of property. Water Resources expects that its reevaluation of conditions of risky dams will lead to an increase in the number of dams in poor or unsatisfactory condition. Moreover, Water Resources does not have the authority to take meaningful action to minimize the risk that a dam poses until the dam reaches a state of imminent failure. Cal OES has not collaborated with Water Resources to ensure that owners of dams complete their required emergency action plans, which help protect life and property if dams fail.

We also found that Water Resources has not followed state law requiring it to take over the maintenance of levees when levees' local maintaining agencies do not meet their contractual obligations. Water Resources determined that the maintenance work would draw resources away from its statewide flood-risk reduction efforts. However, the lack of maintenance increases the chance that levees may fail, which would endanger hundreds of thousands of people in the surrounding communities and could cause billions of dollars in property damage.

Respectfully submitted,

GRANT PARKS
California State Auditor

Selected Acronyms Used in This Report

Cal OES	Governor’s Office of Emergency Services
EAP	Emergency Action Plan
FEMA	Federal Emergency Management Agency
FMAP	Flood Maintenance Assistance Program
LMA	local maintaining agencies
SWIF	Systemwide Improvement Framework

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Summary

KEY FINDINGS AND RECOMMENDATIONS

In our December 2025 biennial assessment of statewide issues that represent a high risk to the State or its residents, our office concluded that the condition of the State's dams and levees remains a high-risk issue.¹ In the assessment, we noted that from 2023 to 2025, the number of the State's dams in *poor* or *unsatisfactory* condition had nearly doubled, from 30 to 52 of the State's 1,230 dams in operation at that time. Although the public and private entities that own dams in the State are responsible for their construction, operation, and maintenance, state law provides the Department of Water Resources (Water Resources) with primary oversight authority over the dams to ensure Californians' safety. In the same 2025 assessment, we also highlighted that levee maintenance in the Sacramento River and San Joaquin River drainage basins had worsened since 2022. The maintenance and safety of levees is a tiered system in which the State, through Water Resources and the Central Valley Flood Protection Board (Board), assume these responsibilities from the federal government. Although Water Resources is largely responsible for overseeing the levees in this area, the State delegated levee maintenance duties to local maintaining agencies (LMAs), which include levee districts, reclamation districts, cities, counties, private landowners, and other public agencies and municipalities. Nonetheless, Water Resources must inspect the levees on a regular basis to ensure that LMAs are performing their statutory responsibilities.

Water Resources and Cal OES Have Not Ensured That Dam Owners Adhered to State Requirements That Protect Lives and Property

Water Resources has assessed 1,077 of the State's 1,222 dams as *satisfactory* and 87 as *fair*.² However, as of May 2026 there are now 57 dams in *poor* or *unsatisfactory* condition, including 40 that have hazard classifications of *high* or *extremely high*.³ Hazard classifications are based on the number of people who would be in danger if a dam failed and the projected financial damage. They do not indicate the likelihood of a dam's failure and are not a measure of the condition of the dam. Failure of just one of these 40 *high* or *extremely high* hazard dams could pose harm to as many as hundreds of thousands of people and cause billions of dollars in property damage.

A number of factors may play a role in these dams' deficient condition, but the most common are their age, the less comprehensive safety standards that were in place at the time of their construction, and their owners' inability to pay for repairs. Existing law does not require dam owners to determine and set aside the financial reserves

¹ California State Auditor's Report 2025-601, *State High-Risk Audit Program: The California State Auditor's Updated Assessment of Issues and Agencies That Pose a High Risk to the State*, December 2025.

² The total number of dams referenced differs from the amount stated in the previous paragraph. Water Resources' management explained that the number of dams under its jurisdiction changes over time when unlawfully constructed dams are identified, new dams are constructed, or existing dams under its jurisdiction are altered to become less than the jurisdictional size or are removed.

³ As of May 2026, Water Resources had not yet assessed the condition of one dam.

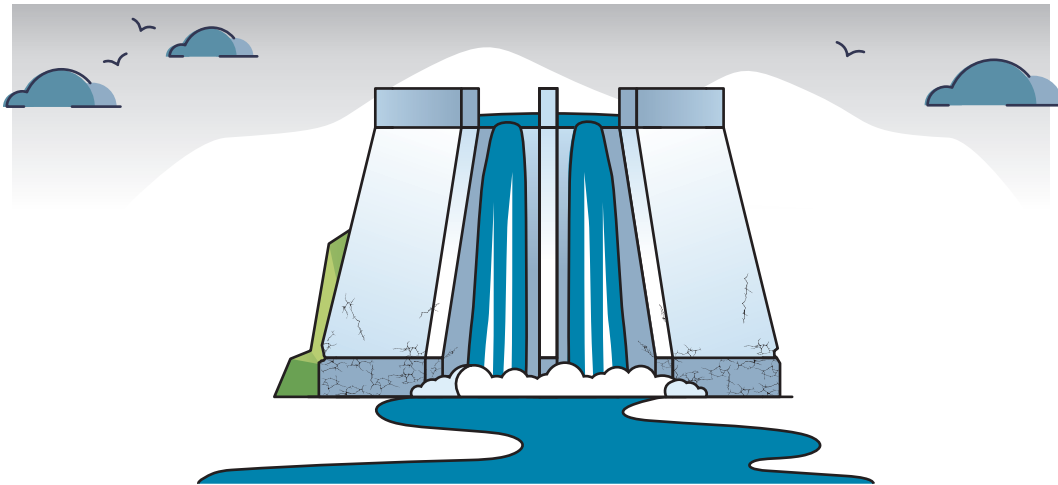
necessary to maintain their dams in a state of good repair. Although the Legislature strengthened Water Resources' enforcement authority beginning in 2017, the agency has only sent notices of violations to dam owners but has not taken further actions, thereby allowing serious deficiencies to persist. According to Water Resources, its efforts to ensure that dams are repaired before they fail have been hampered by its limited resources. Exacerbating this problem, the owners of 60 dams with *significant* and higher hazard classifications, including some dams in *fair* or *satisfactory* condition, have not complied with state law that requires them to create and submit to the Governor's Office of Emergency Services (Cal OES) Emergency Action Plans (EAPs) that are intended to help protect life and property if the dams fail. In addition, some dam owners who did submit plans have not been responsive to Cal OES's requests for revisions, yet Cal OES has not acted to ensure that they do so. Figure 1 summarizes our results regarding the State's oversight of dams.

LMAs' Lack of Maintenance of Their Levees and Water Resources' Reluctance to Intervene Could Heighten Risks to Surrounding Communities

Water Resources rated nearly one-third of the 102 LMAs in 2025 as performing *unacceptable* routine maintenance of levees in the State Plan of Flood Control—a system of flood control facilities that the State is responsible for overseeing. According to Water Resources and the LMAs we spoke with, the LMAs could not afford to perform the necessary maintenance; however, Water Resources has not exercised its full authority to address the risks the chronically underperforming LMAs pose. Although Water Resources has established some targeted repair programs and systemwide efforts to reduce flood risk, its limited funding and LMAs' inability to pay their shares of the costs have hindered Water Resources from addressing all identified critical sites. Water Resources estimates that it and LMAs combined require at least \$165 million per year more than they already spend annually to fully address levee maintenance in the State Plan of Flood Control over the next 30 years. Forming state-managed maintenance areas when LMAs do not meet federal maintenance standards would allow Water Resources to perform the work to ensure compliance while holding the landowners who benefit financially responsible; however, Water Resources has not taken this step. Figure 2 summarizes our results regarding the State's oversight of levees.

To address these findings, we make recommendations to the Legislature to broaden Water Resources' enforcement authority and to amend state law to include additional deadlines for dam owners to submit EAPs to Cal OES. We further recommend that Cal OES coordinate with Water Resources to take enforcement actions against dam owners that have never submitted their EAPs to Cal OES; that Water Resources use the full extent of its enforcement authority to ensure that dam owners make needed repairs; and that Water Resources form state-managed maintenance areas when it determines that LMAs do not meet their federal requirements.

Figure 1
Dam Safety Concerns



WATER RESOURCES ASSESSED DAM CONDITIONS



More than **1,000 dams**
as **Satisfactory**



40 dams

as **Poor** or **Unsatisfactory** and classified as
High or **Extremely High Hazard**

Failure of at least one of these dams could pose danger to hundreds of thousands of people and cause billions of dollars in damage.

COMMON FACTORS FOR POOR OR UNSATISFACTORY CONDITION



Old age



Weak safety standards at
the time of construction



Lack of funding

Enforcement



Minimal enforcement, hampered by limited budget

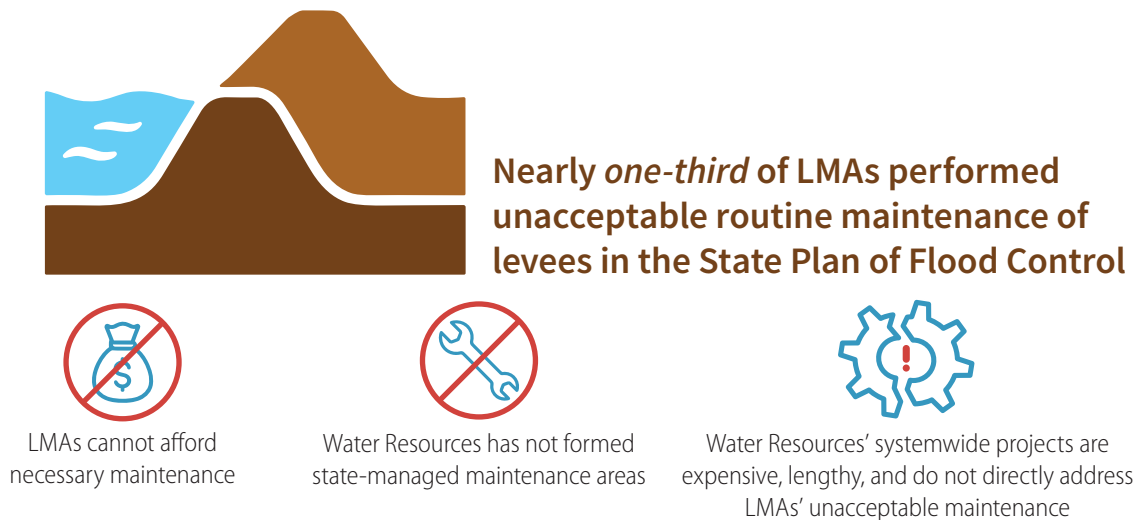
*Water Resources lacks authority to address
abandoned dams before they cause emergencies*

Difficulty With EAPs



Many high-risk dams lack EAPs

*Cal OES requests for
revisions are unmet*

Figure 2**Water Resources' Inadequate Maintenance Response**

The State has not used the full extent of its authority to limit the risk attributable to LMAs' insufficient maintenance

Source: LMA representatives and Water Resources.

Agency Comments

The Board and Cal OES agreed with our findings and stated that they will implement our recommendations. Water Resources disagreed with many of our recommendations and did not clearly indicate whether it will take actions to implement any of them.

Introduction

BACKGROUND

In December 2025, the State Auditor’s Office issued its biennial assessment of statewide issues that represent a high risk to the State or its residents. Conducted as part of our state high-risk government agency audit program, that assessment concluded that the condition of the State’s dams and levees remains a high-risk issue.⁴ *Dams* are large structures constructed to impound water and store it in lakes and reservoirs. The stored water can be used to mitigate the impact of potential floods, provide drinking water, generate electricity, and provide a space for recreational activities.⁵ *Levees*, on the other hand, are earthen embankments that contain, control, or divert the flow of water to provide protection from flooding.

We noted in our state high-risk assessment that since 2023, the number of the State’s dams in *poor* or *unsatisfactory* condition has increased by 73 percent, from 30 dams to 52 dams. We also said that this increase is likely to continue as Water Resources continues to reevaluate the oldest and riskiest dams. We emphasized that nearly half of all dams in concerning conditions pose an *extremely high* downstream risk, meaning that a dam failure would cause considerable loss of human life or result in inundation of an area that would affect a population of 1,000 or more people. We found in that assessment that dam safety planning throughout the State remains incomplete: Cal OES had at that time approved EAPs for only 67 percent of the dams required to submit such plans. These EAPs identified the actions that dam owners, and other entities included in the plan, would take to mitigate risk in the event of dam failure. In addition, our assessment highlighted that levee maintenance had worsened over time as the number of LMAs with less-than-*acceptable* maintenance ratings increased from 71 in 2022 to 80 in 2024, or about 78 percent of all LMAs at that time.

The purpose of our state high-risk government agency audit program is to strengthen the operation of state government by recommending improvements for statewide issues that pose the potential to cause detriment to the State’s residents. Consequently, we performed this audit to offer potential solutions to the issues the State is facing in overseeing its dams and levees.

State Jurisdictional Dams

Public or private entities that own dams in the State are responsible for their construction, operation, and maintenance. However, to ensure Californians’ safety, state law provides Water Resources with primary oversight authority over all dams under its jurisdiction (jurisdictional dams). The text box provides examples of Water Resources’ responsibilities. In addition, Cal OES is responsible for approving the EAPs that dam owners must create when a dam poses a significant hazard to residents.

Water Resources’ Oversight Responsibilities

- Assign downstream hazard classification to dams.
- Perform regular inspections of dams to identify deficiencies.
- Approve dam construction projects.
- Perform construction project inspections.
- Approve dam inundation maps.
- Take enforcement actions against dam owners that do not comply with state law or Water Resources’ requirements.

Source: State law.

⁴ We first included water infrastructure in the state high-risk program in 2013.

⁵ Water Resources asserts that a dam is within its jurisdiction if the dam is more than 6 feet tall and impounds at least of 50 acre-feet of water or if the dam is at least 25 feet tall and impounds more than 15 acre-feet of water.

Although the State has been responsible for the supervision of dams since 1929, the 2017 Oroville Dam crisis in Butte County drew renewed attention to dam safety. During this crisis, major storms caused the reservoir of the Oroville Dam to rise until it overflowed the dam's spillway, which is a safety structure built to release extra water from a reservoir, and threatened to collapse the spillway and cause major flooding. The imminent threat that the dam posed prompted county officials to evacuate about 188,000 residents from across Butte, Sutter, and Yuba counties until officials determined that it was safe for them to return home. After the Oroville Dam crisis, the State passed a number of laws to enhance Water Resources' inspections of dams and mitigate the risk of a similar crisis in the future.

Dam Hazard Classifications

Following the Oroville Dam crisis, the Legislature amended state law in 2017 to require that Water Resources assign each dam a hazard classification based on the number of people who would be in danger if the dam failed and the dollar value of damage the dam's failure could cause. Water Resources uses the Federal Emergency Management Agency's (FEMA) categories for determining the hazard potential; however, Water Resources added *extremely high* as an additional classification. We provide the definitions of each classification later in the report. State law requires Water Resources to revise a dam's hazard classification when it identifies changes in a dam's downstream population, critical infrastructure, or land use.

Dam Inspections, Maintenance, and Repairs

In 2018, the Legislature enacted a requirement that Water Resources inspect dams with a *significant* or greater hazard each year and dams with a *low* hazard every two years. During these inspections, Water Resources must evaluate whether the dam owners have adequately maintained their dams and whether the dams have any signs of deficiencies that the dam owners need to remediate. As part of their inspections, Water Resources engineers review records of dam owners' self-inspections and maintenance activities, perform an onsite visual inspection, and require owners to demonstrate that dams follow certain emergency preparedness procedures that state law requires. Based on the results of its inspections, Water Resources assigns dams condition assessments that we define later in the report. Water Resources also identifies dam deficiencies as part of its reevaluation program, which assesses whether its riskiest dams meet current operating standards.

When dam owners or Water Resources identify that dams have functional deficiencies, Water Resources requires that the owners correct the deficiencies in order to mitigate risks. Water Resources works with dam owners to establish reasonable deadlines for them to prepare plans and schedules for their projects and then to complete required work. According to Water Resources' management, dam owners often must complete complex repair projects to remediate their dams' deficiencies. For example, deficiencies such as large cracks in a dam or problems with a submerged feature may require complicated planning and extensive construction. Figure 3 outlines the various steps that Water Resources requires dam owners to take to verify a deficiency, plan to remediate the deficiency, and then to complete their plan. The figure also identifies the points at which Water Resources reviews and approves the work. According to Water Resources

Figure 3
Dam Repair Projects Include Multiple Steps



■ Water Resources Actions ■ Dam Owner Actions ■ Construction ■ Further Detail

Source: Water Resources.

management, given the complexities of analyses, planning, and work, it can take up to two decades to remediate a deficiency from the time Water Resources or the dam owner first identifies it. In the meantime, Water Resources may impose reservoir restrictions on the dams to reduce the risks posed by their deficiencies.

Inundation Mapping

As part of the legal requirements established following the Oroville Dam crisis, Water Resources must ensure that owners of a dam with a *significant* or greater hazard classification prepare a map showing the area at risk of inundation if the dam were to fail and cause flooding (inundation maps). Inundation maps show the areas that would be flooded and water travel times if dam failure were to occur. Dam owners and emergency management authorities use inundation maps to facilitate timely notification and evacuation of areas that could be affected by a dam failure or flood condition. State law requires that dam owners submit their inundation maps to Water Resources for review and approval when Water Resources classifies their dams as having a *significant* or greater hazard classification, or when their dams' circumstances change.

EAPs

Cal OES and Water Resources share responsibility to ensure that owners of dams with a *significant* or greater hazard classification create EAPs for their dams. As we previously describe, an EAP outlines actions to be undertaken during an emergency to minimize or eliminate the potential loss of life and property damage. State law requires that EAPs adhere to FEMA guidelines and to requirements that Cal OES establishes. Further, Cal OES must approve the EAPs. For dams that Water Resources had classified as a *significant* or greater hazard as of June 2017, state law required dam owners to submit their initial EAPs to Cal OES from January 1, 2018, through January 1, 2021, with the specific due date dependent on the hazard level of the dam. State law requires owners of dams that are newly classified as a *significant* or greater hazard to create an EAP upon Water Resources' approval of their inundation map. Although state law requires EAPs to be approved by Cal OES, it grants Water Resources the authority to take administrative actions against noncompliant dam owners that lack an approved EAP.

Enforcement

The Legislature amended state law beginning in 2017 to authorize Water Resources to take administrative enforcement actions against dam owners who violate state law governing the safety of their dams, Water Resources' requirements, or Cal OES's EAP requirements. In 2022, Water Resources finalized regulations that outline how it may execute its enforcement authority. When dam owners are not compliant, Water Resources may issue a Notice of Violation to them that describes their violations and the remedial actions that they are required to take. Although Water Resources has never taken punitive enforcement actions against

dam owners that fail to remedy their violations because of its managers' claims of limited enforcement resources, Water Resources may issue administrative complaints that seek to impose the penalties that the text box lists. The penalties are meant to compel owners to remedy their violations.

State Plan of Flood Control Levees

The State is responsible for overseeing the levees in the State Plan of Flood Control. The State Plan of Flood Control is the name given to a portion of the Central Valley flood management system for which the State provided assurances of cooperation to the federal government. For example, the State must maintain and operate the State Plan of Flood Control portion of the Central Valley flood management system according to federal requirements. Levees within the State Plan of Flood Control are known as *project levees* and are located in the Sacramento River and San Joaquin River watersheds, as Figure 4 shows. Water Resources performs verification inspections of LMAs' maintenance of the project levees and reports to the U.S. Army Corps of Engineers (Army Corps) periodically regarding the status of levee maintenance, a process we describe in more detail below.

State Plan of Flood Control Oversight Responsibilities

The federal government, Water Resources, the Board, and LMAs share responsibility for overseeing or managing the project levees, as the text box shows. Facilities of flood management, including project levees, in the State Plan of Flood Control are ultimately subject to federal jurisdiction. However, the maintenance and safety of project levees is a tiered system in which the State, through Water Resources and the Board, assumes these responsibilities from the federal government. The LMAs—which include levee districts, reclamation districts, cities, counties, private landowners, and other public agencies and municipalities—then assume the responsibilities from the State through agreements with it. LMAs are typically funded through local benefit assessments and special taxes.

Penalties Water Resources May Impose by Issuing an Administrative Complaint

- Reservoir restrictions
- Property liens
- Fees
- Penalties and interest imposed by statute, including fines up to \$1,000 per day of violation

Source: State law.

Agency Responsibilities Overview

The Army Corps:

- Establishes federal requirements for the construction of federal flood damage reduction projects in accordance with federal laws, regulations, and policies.
- Inspects levees on a regular basis to ensure that the State's operations and maintenance responsibilities outlined in the assurance agreements are being met.
- Implements flood management activities in partnership with nonfederal sponsors.

The Board:

- Provides assurances of cooperation to the Army Corps that it will ensure that federal levee requirements are met within the State Plan of Flood Control.
- Holds state policing power over State Plan of Flood Control levees.

Water Resources:

- Implements state-assisted projects and programs related to levee rehabilitation and improvement.
- Carries out state levee inspections.
- Reports inspection results to the Board.
- Operates and maintains some State Plan of Flood Control levees that are not managed by LMAs.

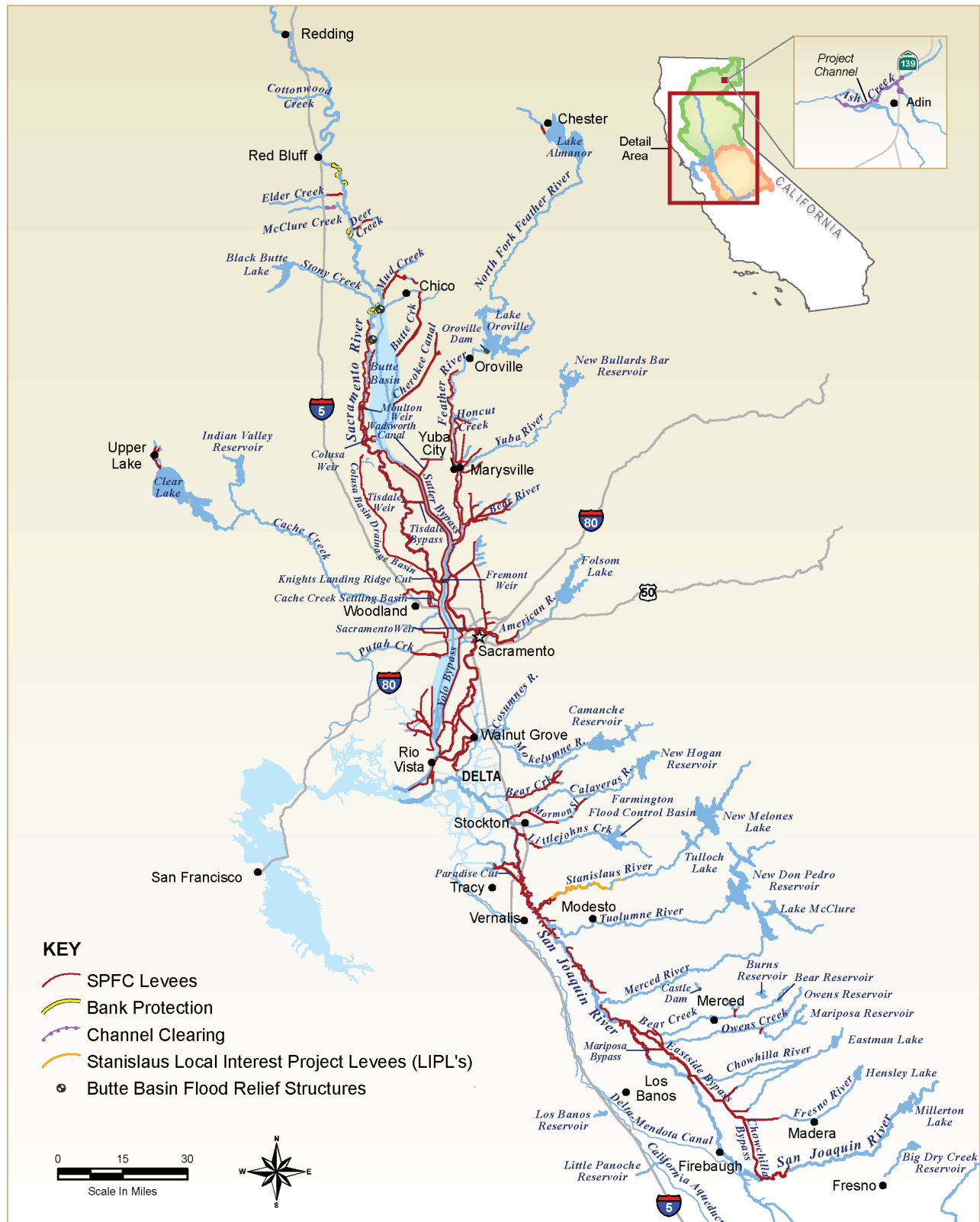
LMAs:

- Operate and maintain levees.

Source: Army Corps, Water Resources, and the Board.

Figure 4

The State Plan of Flood Control Incorporates Levees From South of Redding to North of Fresno



Source: State Plan of Flood Control Descriptive Document.

Because of these overlapping responsibilities, the entities involved must collaborate to ensure consistency between federal and state investment approaches for project levees. Similarly, Water Resources has to carefully consider involved local, state, and federal agencies, as well as special interest nongovernmental organizations, when updating the Central Valley Flood Protection Plan every five years, which the Board must adopt. This plan presents a systemwide approach to protecting the lands currently protected from flooding by existing facilities, such as project levees, of the State Plan of Flood Control. The Board and Water Resources also collaborate to lead, support, and plan flood risk reduction efforts throughout the State Plan of Flood Control.

Water Resources' Inspections of Project Levees

Water Resources inspects the project levees on a regular basis. For example, it completes annual spring and fall maintenance inspections for each LMA that has a levee in the State Plan of Flood Control. During these inspections, it evaluates the status of maintenance practices and observable levee conditions and then rates the levees as *acceptable*, *minimally acceptable*, or *unacceptable*, as the text box describes. During these inspections, Water Resources ensures that LMAs are performing their legal and statutory responsibilities and are meeting their legal obligations under assurance agreements with the State. Water Resources also uses the inspection results to identify repair needs.

Water Resources' Inspection Section also implements the Utility Crossing Inspection Program. Through this program, the Inspection Section performs external inspections of pipes and other conduits that cross project levees. The Utility Crossing Inspection Program inspects about 20 percent of State Plan of Flood Control pipes annually on a 5-year cycle. Water Resources makes the data it collects through these various inspections available to LMAs, the Board, the Army Corps, and the public.

Water Resources Uses Three Rating Categories to Rate Levees

Acceptable—No immediate work required, other than routine maintenance. The flood protection project will function as designed and intended with a high degree of reliability, and necessary cyclical maintenance is being performed adequately.

Minimally Acceptable—One or more deficient conditions exist in the flood protection project that needs to be improved or corrected. However, the project will essentially function as designed with a lesser degree of reliability than what the project could provide.

Unacceptable—One or more deficient conditions exist that may prevent the project from functioning as designed, intended, or required.

Source: Water Resources.

Levee Repair Programs

Levees are susceptible to unexpected failure. For example, deficiencies caused by erosion from wave action, rodent burrowing, and unauthorized encroachments can, if left unaddressed, worsen over time to become critical problems. Further, according to Water Resources management, significant weather events such as extreme tides, severe rainfall, or rapid temperature rise leading to rapid snow melt can cause higher-than-average quantities of water to run through the waterways adjacent to levees. When the waterways are inundated with these large quantities, it is known as a *high-water event*. High-water events place stress on levees that can exacerbate existing minor issues or directly damage the levees.

Water Resources' Levee Repair Programs

Flood System Repair Program:

- Uses proposition funds and funds from Water Resources' general fund to catalog and prioritize all identified levee repair project sites within the State Plan of Flood Control that are not funded under other funding or existing federal programs.
- In order of priority, offers cost-sharing opportunities to the LMAs that manage the sites to complete the repair projects.

Storm Damage Emergency Repair Program:

- Implements critical repair projects using funds from Water Resources' general fund after high-water events.

Pipe Repair Program:

- Inspects, evaluates, and addresses deficient State Plan of Flood Control pipes using funds from Water Resources' general fund.

Source: Water Resources.

Because levees may require repairs beyond what Water Resources identifies as normal LMA maintenance, the agency oversees a multitude of programs related to repairing levees. The text box lists each of Water Resources' levee repair programs and describes its purpose. After Water Resources catalogs and classifies project sites, it contacts LMAs in order of risk priority to offer cost-sharing opportunities to complete the identified repairs.

Water Resources and Cal OES Have Not Ensured That Dam Owners Adhered to State Requirements That Protect Lives and Property

Key Points

- Although the Department of Water Resources (Water Resources) assessed 1,077 of the State's 1,222 dams as *satisfactory*, 87 as *fair*, and has yet to assess the condition of one, the failure of one of the remaining 57 dams in *poor* or *unsatisfactory* conditions could pose a risk to as many as hundreds of thousands of people and could cause up to billions of dollars in property damage. The concerning conditions of these dams frequently result from the less comprehensive safety requirements in place at their time of construction, their aging infrastructure, and dam owners' inability to fund repairs.
- The State does not require owners of dams with hazard classifications of *high* and *extremely high*—of which there are 726—to financially plan to maintain or decommission their dams, and owners cannot afford these costs. Consequently, these dams may not receive the required maintenance and are more likely to fail.
- According to its managers, Water Resources' enforcement authority, strengthened beginning in 2017, has been hampered by its limited financial resources, resulting in Water Resources not taking any formal enforcement actions against the owners of four dams that its engineers have referred for enforcement because of their deficiencies. Even with its strengthened authority, Water Resources still cannot ensure that dams are made safe before they cause emergencies.
- The Governor's Office of Emergency Services (Cal OES) has yet to approve the Emergency Action Plans (EAPs) of 245 dams, including 141 dams classified as *high* and 58 dams as *extremely high* hazard, primarily because dam owners have not completed revisions that Cal OES has asked them to make to their plans. Moreover, Cal OES has not worked with Water Resources to ensure that dam owners promptly submit their EAPs for review.

Many Dams With Functional and Safety Deficiencies Pose Substantial Risks of Flooding and Danger to Lives and Property

State law identifies requirements that Water Resources must adhere to when completing dam inspections, and Water Resources' policies reflect these requirements. For example, state law requires that inspections must include visual inspection of major features of the dam, including its groins, abutments, toe areas, spillway, and outlet works. In addition, state law requires Water Resources to inspect dams every year or two years, depending on the hazard classification of the dam.

Downstream Hazard Classifications

Low—No probable loss of human life and low economic and environmental losses. Losses are expected to be principally limited to the owner's property.

Significant—No probable loss of human life but could cause economic loss, environmental damage, impacts to critical facilities, or other significant impacts.

High—Expected to cause loss of at least one human life.

Extremely High—Expected to cause considerable loss of human life or result in an inundation area that has a population of 1,000 or more.

Source: Water Resources.

Dam Condition Assessments

Satisfactory—No existing or potential dam safety deficiencies are recognized. Acceptable performance is expected in accordance with the minimum applicable state or federal regulatory criteria or tolerable risk guidelines.

Fair—No existing dam safety deficiencies are recognized for normal operating conditions. Rare or extreme hydrologic and seismic events, such as floods and earthquakes, may result in a dam safety deficiency. Risk may be in the range to take further action.

Poor—A dam safety deficiency is recognized for normal operating conditions, which may realistically occur. Remedial action is necessary. This condition may also be used when uncertainties exist as to critical analysis parameters that identify a potential dam safety deficiency. Investigations and studies are necessary.

Unsatisfactory—A dam safety deficiency is recognized that requires immediate or emergency remedial action to resolve the problem.

Not Rated—The dam has not been inspected, is not under state jurisdiction, or has been inspected but has not been rated.

Source: Water Resources.

The text box lists the definitions of each hazard classification.⁶ Water Resources must also require engineers to ensure that dam owners demonstrate the full operability of certain dam features at least every three years. We reviewed Water Resources' policies and procedures and determined that they included all key legal requirements.

We also found that Water Resources' dam engineers followed Water Resources' inspection policies. We reviewed inspection records for 10 dams with *high* or *extremely high* hazard classifications, which according to their definitions mean they could endanger at least one or at least 1,000 lives respectively: two were assessed as *satisfactory* condition, one was assessed as *fair* condition, six were assessed as *poor* condition, and one was assessed as *unsatisfactory* condition. The text box lists the definition of each condition assessment. These dams are located throughout the State, consist of five different design types, vary in age and capacity, and generated power in some instances. We reviewed the most recent inspection report for each dam and found that engineers followed Water Resources' policies. For example, available documentation demonstrated that engineers reviewed the major dam features and ensured that dam owners demonstrated that their critical dam features were operational or noted that they were not.

Although most dams are in *satisfactory* or *fair* condition, Water Resources has identified many dams that are in *poor* or *unsatisfactory* conditions, with several of those dams posing substantial risks to downstream residents and economies. As Table 1 shows, 1,077 of the 1,222 dams that Water Resources regulates are in *satisfactory* condition. Further, 87 additional dams are in *fair* condition, which indicates that no existing dam safety deficiencies exist for normal operating conditions. However, Water Resources has rated 56 dams as being in *poor* condition and one in *unsatisfactory* condition. Further, 39 of the 56 dams that are in *poor* condition and the one dam that is in *unsatisfactory* condition pose a *high* or *extremely high* hazard to downstream residents and property.

⁶ Hazard classifications reflect the potential effects of a failure of a dam on the at-risk communities, but they do not indicate the likelihood of a dam's failure.

Table 1

As of May 2026, 40 Dams in California Had Deficiencies That Could Cause Them to Fail and Endanger Human Life

CONDITION ASSESSMENT	HAZARD CLASSIFICATION				TOTAL PER CONDITION
	EXTREMELY HIGH	HIGH	SIGNIFICANT	LOW	
Unsatisfactory	1	0	0	0	1
Poor	20	19	7	10	56
Fair	32	34	7	14	87
Satisfactory	210	410	105	352	1,077
Not Rated	0	0	0	1	1
Total per Hazard Classification	263	463	119	377	1,222

Source: Water Resources database on dam condition and hazard classification.

■ 40 dams with high or higher hazard classification and less than fair condition.

■ 144 dams in less than satisfactory condition.

Failure of any of the 40 dams in *poor* or *unsatisfactory* conditions could cause significant loss to local communities. These dams are spread throughout the State but are clustered in densely populated urban areas. As Figure 5 shows, dams in *poor* condition that pose *extremely high* hazard are generally concentrated in the Bay Area, San Diego, and Los Angeles areas—the most populated areas in the State. If the deficiencies of these riskiest dams cause them to fail, they could collectively endanger as many as 1.5 million people and cause more than \$265 billion in economic damage. For example, it is estimated that the failure of one of these dams assessed as in *poor* condition could endanger more than 400,000 people and cause nearly \$92 billion in economic damage. Table A in Appendix A provides data regarding the hazard posed by *poor* and *unsatisfactory* dams.

We reviewed six dams to better understand their specific circumstances for their identified deficiencies. These included four dams that Water Resources had assessed as *poor*, one in *unsatisfactory* condition, and one in *fair* condition. Water Resources' engineers have identified multiple deficiencies at each dam we selected. These dams were all classified as *extremely high* hazard, are used for different purposes, and are of varying ages. Table B in Appendix B presents a summary of each dam's circumstances.

Many of the dams in the State were not built to operate within modern safety requirements. Safety requirements for dam design plans to limit public risk have evolved significantly since the State began regulating dams in 1929. As a result, dams built before the State established its current requirements have had to be retrofitted to meet those standards. Water Resources' management stated that approximately 60 to 70 percent of the deficiencies that Water Resources engineers have found among the 144 dams with less than *satisfactory* condition assessments are related to not meeting design standards.

For example, Water Resources' management explained that Dam F in Table B, which was built before 1960, does not meet modern standards because it was built when the standards were not as comprehensive as they are today. Water Resources requires that this dam be

Figure 5

40 Dams Across the State With Poor or Unsatisfactory Condition Assessments Pose High and Extremely High Hazard and Are Clustered Around Densely Populated Areas



Source: Water Resources data.

able to safely pass up to 220,000 cubic feet per second of water, which is the highest load that Water Resources estimates the dam would incur under very extreme conditions using a methodology established in 1999—more than 40 years after the dam’s construction. However, this dam can safely pass only 147,000 cubic feet per second of water, which is 33 percent less than the modern requirement. According to the dam owner, if this dam experienced a situation involving this extreme load of water, the water would spill over the top of the dam, causing flooding downstream and erosion of the dam. All six of the dams we reviewed had deficiencies related to age, and 32 of the 39 *high* or *extremely high* hazard dams in *poor* condition were built before 1960.

Failure to meet standards can also occur because of lack of maintenance. For example, according to the dam owner, Dam F in Table B is also deficient because the sediment accumulating from natural storm runoff has built up over time to the extent that it now inhibits the dam’s intake tower, which is designed to retain water. However, the dam owner did not remove the sediment. As a result, the intake tower may cause other dam features to break apart during an emergency, which could result in the dam’s failure and downstream flooding. Water Resources’ management also explained that over time, materials such as the concrete and steel used in dam features and appurtenances, such as spillways, age because of exposure to the elements, inhibiting those features from functioning as intended.

In another instance, Dam C in Table B is more than a century old, and its concrete is deteriorating. In this case, the concrete has deteriorated to such an extent that repairs cannot be completed without further compromising the dam’s integrity. Prior to discovering the condition of the concrete, Water Resources determined that the entire dam was seismically unstable, and the deteriorating concrete has further jeopardized the dam’s stability should an earthquake occur and has made the dam more vulnerable during large storm events. Figure 6 displays an example of concrete deterioration that contributed to Water Resources assessing that specific dam to be in *poor* condition.

Figure 6

Concrete on One Dam Has Experienced Extreme Deterioration Because of Age and Exposure to Natural Elements



Large cracks degrade the dam’s structural integrity.

Source: Auditor photographs taken during on-site visit in March 2026 and interviews with dam owners.

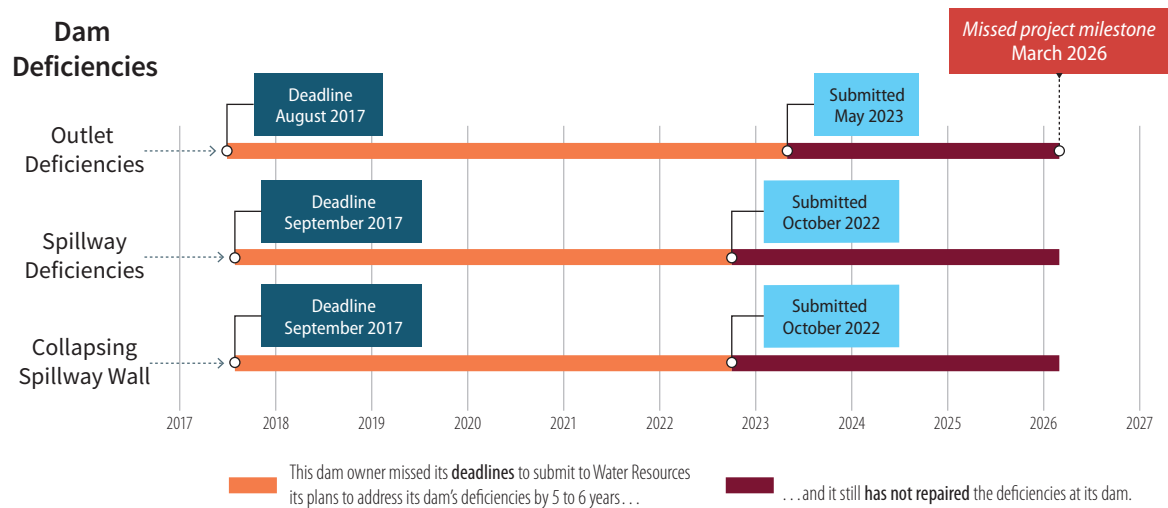
Dam Owners Have Not Secured Sufficient Funding to Repair Their Dams

Several dams that are in *poor* and *unsatisfactory* condition have operated with deficiencies for at least nine years. We reviewed Water Resources' data to identify when a dam was first assessed by Water Resources as less than *satisfactory*. The data are from as early as 2017, when Water Resources began tracking dam conditions. We found that 16 of the 40 *high* or *extremely high* hazard dams in *poor* or *unsatisfactory* condition as of May 2026 had deficiencies that resulted in Water Resources assessing them as *fair* or *poor* in 2017. Overall, the percentage of dams in *satisfactory* condition has decreased from 92 percent of all dams in 2017 to 89 percent in 2025, while the percentage of dams in *poor* condition has increased from 0.5 percent to 4 percent over the same period. Additionally, only 31, or about 2 percent, of all dams under its jurisdiction (jurisdictional dams) have improved their condition from less than *satisfactory* to *satisfactory* condition from 2017 through 2026. Water Resources anticipates that this trend will continue as it completes reevaluations of risky dams that will lead to an increase in the number of dams found to be in *poor* or *unsatisfactory* condition during the upcoming years.

Water Resources' management informed us that dam repair projects are often delayed by dam owners because they cannot afford the cost of repairs. When Water Resources identifies deficiencies at dams, it works with dam owners to establish deadlines for them to prepare plans and schedules for their projects and then to complete required work. Figure 7 provides an example of a dam owner—the owner of Dam A in Table B—that missed the deadlines that Water Resources established for it to provide plans to address its dam's deficiencies and for one of its project milestones. While the dam owner undergoes the planning process, Water Resources may impose a reservoir restriction on the dam to reduce the risks posed by the dam's deficiencies. Water Resources has active restrictions on 49 dams as of September 2025, including restrictions on Dams A, C, and E in Table B. Water Resources received \$464 million in 2023 for dam safety and climate resilience, a portion of which it plans to use for grants to supplement dam owner repair costs. However, Water Resources estimates that the cost for dam owners to repair California's jurisdictional dams to obtain *satisfactory* assessments is approximately \$28 billion. Specifically, Water Resources estimates that dams currently in less than *satisfactory* condition require \$18.5 billion now. It further estimates an additional \$9.4 billion for dams it will likely identify as less than *satisfactory* in the next five years. Water Resources released guidelines for its grant program for public comment that closed in August 2026.

To better understand how long the dams' deficiencies have been outstanding and why their owners have not completed their required remediations, we reviewed Water Resources' correspondence records and interviewed representatives of the six dams with *extremely high* hazard classifications that we discussed earlier. The owners of dams A, B, C, E, and F in Table B told us that they do not have resources to pay for their repairs. Water Resources estimates the repair costs for Dam B to be about \$22 million while the owner of Dam F estimates its repair costs at \$314 million. Although representatives of these owners cited delays in their projects because of complexities involved in developing plans or staffing issues, each also explained that their organization ultimately did not know how they would fund their repairs.

Figure 7
A Dam Owner Missed Water Resources' Deadlines by Several Years



Source: Correspondence between Water Resources and dam owner.

The owners of Dams A and B explained that they have several assets in addition to their dams for which they must prioritize limited funding. For example, the owner of Dam B took approximately two decades to begin to address a deficiency at one of its dams because it prioritized funding for other projects—such as those related to potable water—that it believed had a greater impact on the livelihood of its constituents than repairing the dam. Similarly, the owner of Dam A stated that it took more than five years to develop a plan to address deficiencies with its dam because it prioritized funding other projects—such as an improvement project for a water treatment facility—during that time. Without plans to pay for their projects, it is unclear whether the dam owners will be able to complete their projects to address public safety concerns.

In June 2017, Water Resources identified that Dam C may have potential geologic, structural, or performance issues that would jeopardize its ability to withstand flood events and therefore requested that the dam owner develop a comprehensive assessment to address these concerns. The dam owner submitted this assessment in 2019, and Water Resources verified in 2025 that the owner had made some of the necessary repairs. However, the dam owner did not complete the rest of the repairs after discovering the extent of the concrete deterioration at the dam. The dam owner instead opted to replace the dam entirely. In September 2025, the dam owner informed Water Resources that its estimated cost to replace the dam ranged from \$474 million to \$675 million and that it had lost a major funding source for the project. As a result, the dam owner no longer had sufficient funding for the replacement project, resulting in further delays to remediate the dam's deficiencies. To mitigate risks in the meantime, Water Resources and the dam owner have agreed to reduce the amount of water the dam is allowed to hold, to minimize the effects of flooding should the dam fail.

Only the owner of Dam D has made progress on resolving its dam's deficiencies and is on track to complete the work. Water Resources first assessed the dam as being in *fair* condition in June 2023 when it determined that the dam could not withstand the extreme water load that the department estimated it could experience. Water Resources further downgraded the dam's assessment to *poor* in December 2023 upon discovering a further deficiency. According to the dam owner, it has since worked to address both deficiencies and has experienced delays only because it had to revise its plans based on feedback from its federal oversight agency and acquire additional environment impact permits, but not because of funding concerns. The dam owner expects all required repairs on the dam to be completed by 2027. According to Water Resources management, because it does not have concerns regarding the owner's ability to afford its repairs, this scenario is an excellent example of how permitting can interfere with the timeliness of dam repair projects.

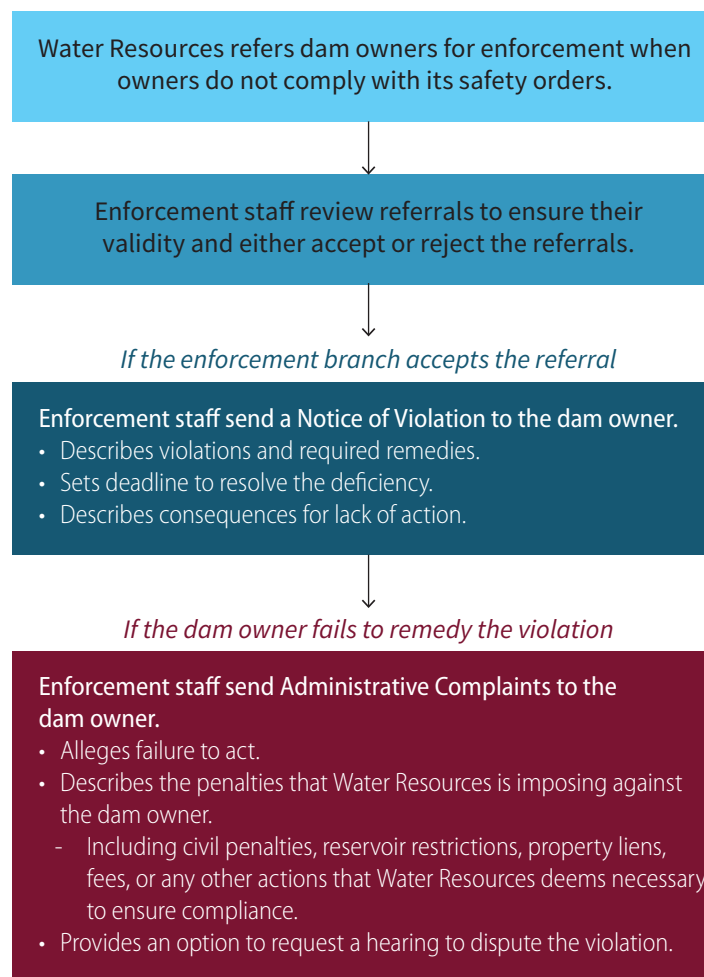
State law currently assigns dam owners the responsibility for dam maintenance but does not require that dam owners maintain funding for these repairs. According to state law, dam owners are responsible for operating and maintaining their dams so that they do not constitute a danger to life or property. However, even though planning to fund repairs for dams that pose *high* and *extremely high* hazards is an important component of ensuring public safety, state law does not require dam owners to conduct any formal planning or to maintain a financial reserve to support large-scale repair projects or respond to emergencies. In the absence of these requirements, some dam owners we reviewed have not prioritized funding their repair projects and, as a consequence, they have experienced significant delays in addressing deficiencies. These delays leave people and property downstream from the dams vulnerable to flooding for periods longer than necessary. State law amendments that would require dam owners to have a long-term plan identifying expected maintenance and repairs, along with strategies to fund them, would help ensure the safety of the surrounding communities. A representative of one of the dam owners—which owns several dams with ratings of less than *satisfactory*—agreed that this requirement would be beneficial.

Water Resources Has Been Unable to Fully Exercise Its Enforcement Authority Against Noncompliant Dam Owners

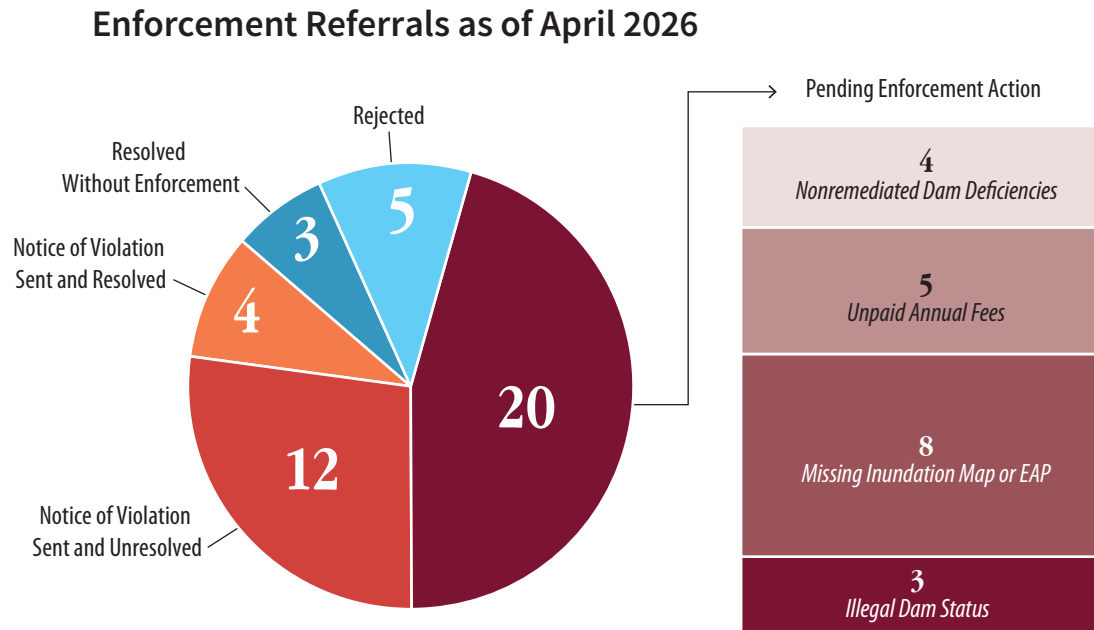
Water Resources has not fully exercised its enforcement authority to ensure that dam owners repair their dams in a timely manner. Beginning in 2017, state law granted Water Resources authority to take administrative enforcement action against dam owners that do not comply with any provision of state law pertaining to the supervision of dams and reservoirs or that disregard Water Resources requirements to take corrective action to restore their dam conditions. As Figure 8 illustrates, enforcement actions that Water Resources may take against a noncompliant dam owner include civil penalties; reservoir restrictions; property liens, fees, penalties and interest imposed by statute; and any other actions that Water Resources deems necessary to ensure compliance. As of April 2026, Water Resources' engineers had referred owners of 44 dams for enforcement actions. As we discuss later, Water Resources sent notices of violations to owners of 16 of these dams that had not submitted inundation maps or EAPs for their dams. Water Resources

resolved the referrals related to three dams without sending a Notice of Violation and rejected the referrals related to five other dams for various reasons, including determining that the dam owner was not responsible for its unpaid annual fees or that Water Resources had a pre-2017 copy of the dam's inundation map. However, as Figure 9 shows, Water Resources has not taken action against owners of the remaining 20 dams to ensure that they addressed their violations, such as owners of four dams that had violations for not remediating their dams' deficiencies. Water Resources' managers said it has not taken further enforcement action because of the time it took to develop its enforcement regulations and because of its lack of enforcement resources.

Figure 8
Water Resources Has Enforcement Authority to Compel Dam Owners to Comply With Its Orders to Address Safety Issues



Source: Water Resources and California Code of Regulations.

Figure 9**Water Resources' Engineers Have Referred Owners of 44 Dams for Enforcement**

Source: Water Resources.

Water Resources' initial lack of action on enforcement is because it has prioritized adoption of regulations for its other responsibilities over its enforcement regulations. Water Resources' management stated that the 2017 revisions to state law granted the department several new areas of authority that each required it to develop new regulations. Water Resources began developing regulations for its enforcement authority in 2020, three years after the law passed, because it prioritized developing the regulations for its other authorities and subsequently finalized the regulations in September 2022.

According to its management, Water Resources has not taken compelling enforcement actions against dam owners since it finalized its regulations because it has not been able to staff its enforcement branch and it believed that it could not afford to defend its actions in administrative hearings if dam owners challenged them. The Department of Finance approved a budget change proposal in July 2023 that provided six positions for the enforcement branch and allocated special funds for those positions. However, Water Resources management acknowledged that this budget change proposal did not account for the resources required to participate in administrative hearings. Further, Water Resources management stated that the Legislature required it to cut its budget, including the special funding for the dam safety program, in fiscal year 2024–25 by nearly 8 percent, which affected positions throughout the department, including the dam safety program and enforcement. Although Water Resources used its existing staff to evaluate enforcement referrals and send notices of violations, its management claimed that the reduced funding

limited the department's ability to hire for new positions, so it focused instead on ensuring that it fulfilled its mandated responsibilities, which do not include enforcement. Water Resources' management further stated that it would have pursued an administrative complaint against a few noncompliant dam owners had it requested and obtained sufficient funding for the associated legal costs. In January 2026, Water Resources' management submitted a budget change proposal, which was approved in June 2026, that increased the annual rates it charges dam owners so that it can cover litigation costs associated with administrative complaints. According to Water Resources' management, it has filled four of the six enforcement positions to date. However, Water Resources management stated that the department has not been able to fill the remaining positions because it cannot find qualified individuals to accept the positions.

Because of these limitations, Water Resources has not compelled dam owners to make repairs and bring their dams up to legal standards. Since developing its enforcement branch in 2023 through May 2026, Water Resources staff have referred four cases to its enforcement branch in which the dam owners have not taken sufficient action to repair a deficiency. For example, the owner of one dam has refused to fix a large hole in its dam, as Figure 10 shows, that could cause flooding and, in turn, could affect nearly 300 people and cause more than \$88 million in economic damage.⁷ These cases, which range in nature from unresponsive owners to outstanding issues with critical dam features, have been pending with the enforcement branch for an average of two years.

Figure 10
One Dam Has Had a Large Hole in Its Spillway for More Than 30 Years



Source: Water Resources staff and Google Maps as of September 2026.

⁷ This dam is not one of the dams referenced in Appendix B.

Notwithstanding its lack of enforcement action, Water Resources' current options for sanctions would not ensure that dam owners remediate their dams. Despite such efforts as sending notices of violations to noncompliant dam owners, levying fines, and restricting reservoir levels, some dam owners may continue to ignore Water Resources' orders and operate their dams without remediating their deficiencies. This could be particularly true if dam owners claim they cannot afford the cost of repairs. Water Resources does not plan to refer dam owners to its enforcement branch if the owners claim they cannot afford the work required to remediate their deficient dams, as long as they provide updates to Water Resources about their progress and follow its safety orders. However, allowing dam owners to continue to operate dams without making necessary repairs could place lives and property in jeopardy. For example, according to a case study published by the Association of State Dam Safety Officials, two dams in Michigan failed in 2020, causing extensive property and environmental damage and resulting in the evacuation of 10,000 people. Both dams had long-standing, known deficiencies that created a flood risk; however, the former and current dam owners did not make repairs because they claimed that they could not afford them.

Water Resources' inability to directly address dam deficiencies unless the dam poses a danger to the safety of life or property creates undue risk. Under extreme circumstances, Water Resources has the authority to repair a dam during an emergency and undertake that responsibility directly. State law requires Water Resources to immediately employ any remedial means necessary to protect life and property if either the condition of any dam or reservoir is so dangerous to the safety of life or property as not to permit sufficient time for its issuance and enforcement of an order to the dam owner to address the condition or if passing or imminent floods threaten the safety of a dam or reservoir, and in either case, constitutes emergency-level danger. Consequently, if a dam owner's continued inaction results in the dam posing an emergency-level risk, Water Resources must initiate immediate action to mitigate the threat posed by the condition of the dam. However, because of the complicated nature of that work, Water Resources may not have adequate time to mitigate the threat after it has determined that the dam poses emergency-level danger, and the dam's failure could cost lives and cause expensive damage.

When an owner is noncompliant, Water Resources does not have the authority to take meaningful action to minimize the risk that an *extremely high* or *high* hazard dam poses to public safety before the dam poses emergency-level danger. In a situation when a dam owner remains noncompliant even after Water Resources has exercised its existing enforcement options, as we discussed previously, it cannot act before the dam poses emergency-level danger. This leaves a gap in state law that puts public safety at risk. If Water Resources could legally condemn the dam and then complete work to minimize the risk of it reaching emergency-level danger, these actions would help ensure public safety. That effort could include completely removing the dam or altering the condition of the dam or its environment so that the dam poses minimal risk to the public. Although the specific action could vary widely based on the unique design, placement, function, and necessity of each dam, we refer to this action broadly as *decommissioning* the dam.

According to Water Resources, developing a plan to decommission a dam is a costly and complicated effort. It would likely take a dam owner several years to prepare a decommission plan and obtain the needed approval. Because dams serve important functions, such as providing flood control and retaining reservoirs used for drinking water, decommissioning a dam could have significant implications for the dam's surrounding communities. For example, removing a flood control dam would allow water to flow freely where it had previously been restrained, leading to an inundation of residential or commercial properties that were otherwise merely at risk from the dam's failure. Consequently, dam owners would need to coordinate with the surrounding communities to develop a plan that addresses their needs and concerns. Further, according to Water Resources' management, environmental permitting could be an obstacle when decommissioning a dam.

Cal OES Has Not Ensured That All Dam Owners Have Completed Required EAPs

Dam owners must develop an EAP to minimize loss of life and damage to the local economy stemming from emergency conditions affecting their dams. As we discuss in the Introduction, state law requires that the owner of a dam with a *significant* or higher hazard classification develop and submit an inundation map for Water Resources to review. Upon Water Resources' approval of the map, state law also requires that the dam owner work with public agencies to develop and submit an EAP for Cal OES to review and approve and to resubmit an EAP if their safety conditions change. State law requires that EAPs describe the response process, as well as the roles and responsibilities of the dam owner in the event of an incident involving the dam. In addition, EAPs must contain notification flowcharts and contact information for public agencies in the dam's flooding inundation zone. The owner must inform federal, state, and local agencies of the impact that a dam failure would have on their jurisdictions and allow the agencies to adequately plan their responses. The text box lists examples of key actions from EAPs that dam owners and local agencies would take in the event of a failure.

Examples of Key Actions in an EAP

Dam owners:

- Monitor the dam and take corrective actions.
- Notify local entities to engage in emergency measures.

Local agencies:

- Take emergency measures, including evacuation.
- Contact other entities to ensure that they also take appropriate action.

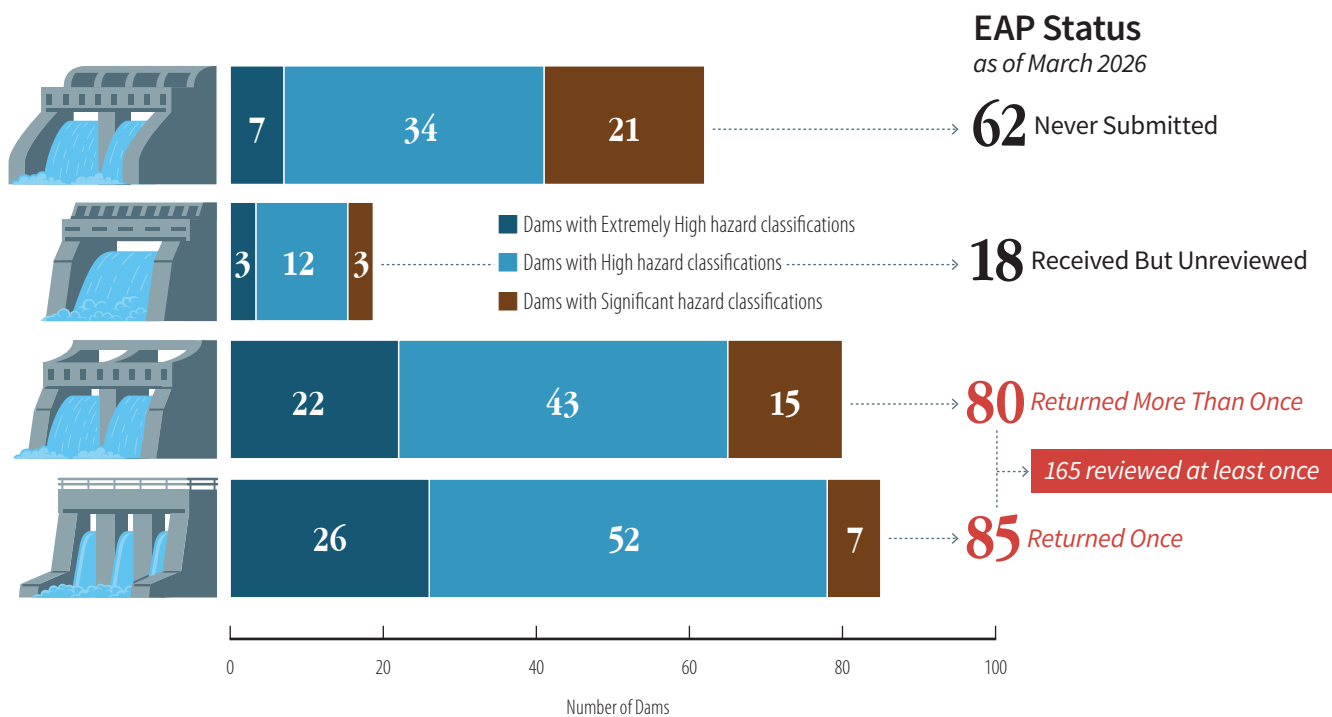
Source: Federal Emergency Management Agency (FEMA) guidelines.

Although Cal OES has made some progress in approving EAPs, there are many still pending its approval. In December 2025, our state high-risk assessment reported that Cal OES had approved 577 EAPs. During this audit, we identified that as of March 2026, Cal OES had approved 26 additional EAPs, for a total of 603 approved EAPs. Cal OES's recent approvals included 21 for *high* hazard dams. However, there are still 245 EAPs, or 29 percent, that have not been approved, including EAPs for 141 dams with *high* hazard classifications and 58 dams with *extremely high* hazard classifications. The *extremely high* hazard dams alone threaten to cause from \$438,000 to \$143 billion in property damage should any of those dams individually fail. On average, an *extremely high* hazard dam without an approved EAP could endanger nearly 18,000 people. As such, it is critical that Cal OES ensure that dam owners submit or resubmit their EAPs on time for its review and approval, prioritizing the *extremely high* hazard dams.

Of the 245 unapproved EAPs for dams that must submit EAPs to Cal OES, a quarter have yet to do so. Cal OES staff review the EAPs and either approve them or require that dam owners revise them to address specific areas of the plans. Cal OES may reject an EAP multiple times until the EAP meets all of its requirements. As Figure 11 shows, owners of 62 dams have never submitted their EAPs. Cal OES has reviewed the remaining 165 EAPs that it has received and rejected them because of various deficiencies, such as missing important identifying information or failing to properly identify impacted communities and agencies. Cal OES's application review data as of March 2026 show that Cal OES first rejected these EAPs an average of four years ago. For example, a dam in the Bay Area first submitted its EAP to Cal OES in April 2021, and Cal OES returned it for edits in May 2021. The last time this dam submitted its EAP for review was in June 2022, and it has not resubmitted since its latest rejection in July 2022.

Figure 11

Cal OES Has Reviewed Most EAPs at Least Once, but They Continue to Remain Unapproved



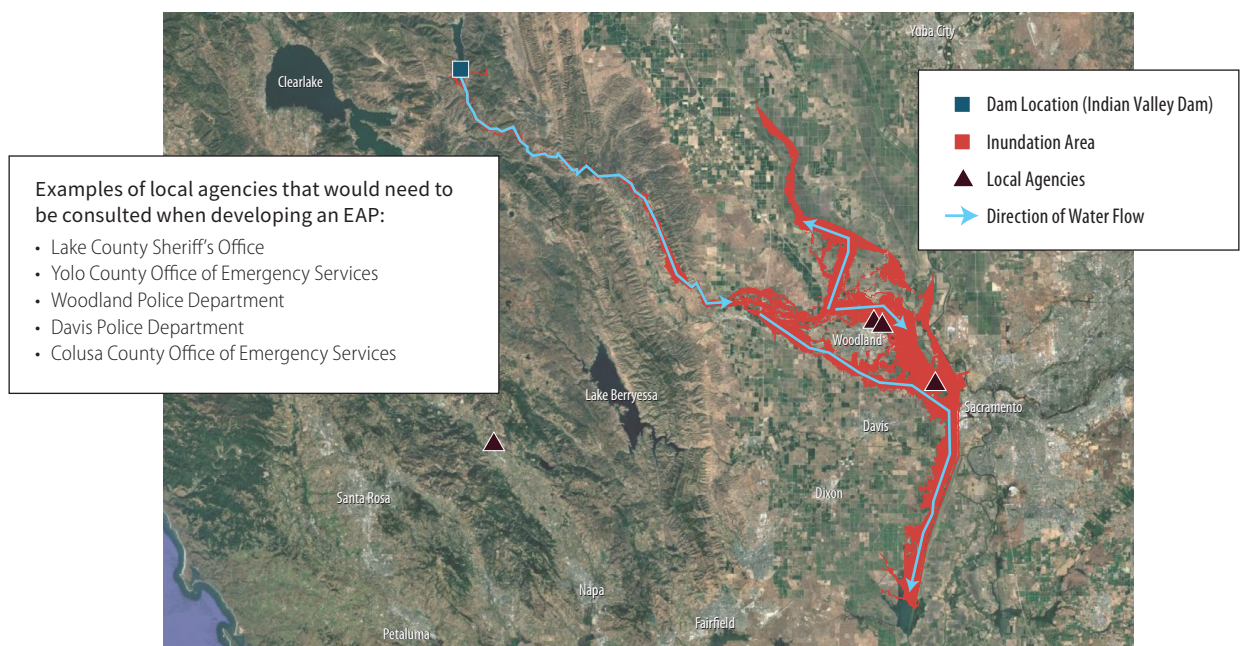
Source: Cal OES data.

Of the 62 dams that have never submitted an EAP, Water Resources classified 60 as a *significant* or greater hazard classification in 2017. Further, 14 currently have a less than *satisfactory* condition assessment, including nine in *poor* condition. As we discuss in the Introduction, state law established deadlines starting on January 1, 2018, through January 1, 2021, for dam owners to submit their EAPs to Cal OES for review, depending on their hazard classification. Therefore, all 60 dams

with a *significant* or greater hazard classification are delinquent in submitting their EAPs. The other two dams were only more recently assigned a hazard classification by Water Resources in 2023. Because Water Resources assigned these hazard classifications after the state law established the requirements in 2017 and because the state law does not include a deadline for newly classified dams, there is no formal deadline for these two dams to submit their EAPs to Cal OES or to submit their inundation maps to Water Resources for review.

Our review of 10 EAPs submitted to Cal OES that it reviewed but did not approve as of March 2026 found that owners generally struggle to fulfill certain requirements for EAPs. Specifically, we identified that nine of these EAPs were noncompliant in areas involving working with local agencies to develop processes to notify them during emergencies. Cal OES's EAP program manager stated that his team is unable to approve some EAPs because the dam owners did not sufficiently complete portions of their plans pertaining to coordination during emergencies with local agencies that would be affected by the dam's failure. Our review also found that unapproved EAPs were missing critical information, including hazard classifications, emergency notification templates, coordination of actions to reduce water flows, and plans to update and distribute the EAPs as needed. Furthermore, five EAPs did not include their approved inundation map. Coordination with local agencies during an emergency is important because the failure of a dam could affect areas far outside the immediate vicinity of the dam, as Figure 12 shows.⁸ Local agencies that could be affected by a dam's failure may not be aware of the risks to their communities unless the dam owner informs them. Further, without emergency procedures for risks posed by the dam, those agencies cannot complete emergency simulations to refine their responses.

Figure 12
Dam Failure Can Impact Distant Communities



Source: Dam Breach Inundation Map Web Publisher.

⁸ This dam is not one of the dams referenced in Appendix B.

The dam owners we spoke with cited different reasons for not having completed their EAPs, including lack of staffing and not being aware of the requirement. We spoke with representatives of five dam owners with EAPs that Cal OES has not yet approved. Representatives of two dam owners stated that staff turnover presented challenges in responding to requests from Cal OES regarding EAP revisions. Representatives of two other dam owners were unaware of whether they had an EAP for their respective dams, or that they even needed one. Moreover, two dam owners indicated that inconsistencies among different reviewers at Cal OES presented challenges in finalizing their EAPs because subsequent reviewers would find the need for additional revisions that were not identified by the initial reviewers. Cal OES's deputy director stated that such revisions are a result of Cal OES updating its standards and EAP requirements over time.

Despite the lack of response from some dam owners, Cal OES does not coordinate with Water Resources to ensure that delinquent dam owners respond to its requests. State law grants Water Resources the authority to take various enforcement actions against dam owners for violating state law, including for not submitting EAPs. As we discuss in the Introduction, if a dam owner does not prepare an EAP and submit it to Water Resources and Cal OES, Water Resources may issue a Notice of Violation that serves as a letter of reprimand to the dam owner. If the dam owner remains noncompliant, state law grants Water Resources the authority to impose reservoir restrictions or fines and take civil action. However, Water Resources and Cal OES have not worked together to ensure that such enforcement occurs. As a result, Water Resources has sent 16 Notices of Violation to dam owners that have not submitted inundation maps or draft EAPs to it but has not taken enforcement action against the owners of 48 dams with a *significant* or greater hazard classification that violated state law by not submitting their EAPs to Cal OES for review by the required deadlines.

State law does not specifically require dam owners to be responsive to Cal OES's follow-up requests after it has reviewed and rejected an EAP. State law gives Cal OES full authority to determine whether an EAP meets its requirements, which it bases on FEMA guidelines. State law also requires that if Cal OES determines that a dam owner's EAP does not meet Cal OES's requirements, it shall reject the EAP and require the dam owner to resubmit with revisions. However, state law does not contain deadlines for when dam owners must submit revisions to Cal OES. Cal OES's program manager explained that it does not impose deadlines because there are no applicable state laws that authorize such deadlines. Instead, Cal OES's program manager told us that his team communicates with delinquent dam owners through monthly phone calls and letters that the office sends twice per year. Although Cal OES could establish deadlines through regulations, it has not done so because Cal OES's management believes such regulations would be of questionable use for getting dam owners to respond to its requests. As a result, Cal OES does not have the means to establish that the owners of the 183 dams that are in the process of resubmitting EAPs, as Figure 11 depicts, are delinquent.

Although Water Resources has the authority to take enforcement actions against delinquent dam owners, it stated that it cannot do so against dam owners that have not resubmitted revised EAPs to Cal OES. Without deadlines for resubmission in the state law or regulations, Water Resources' management stated that they cannot take enforcement actions against delinquent dam owners because they are not technically in violation of any requirements, even if they delay resubmitting EAPs for several years. This situation presents a serious problem because when owners operate dams without adequate emergency plans, they risk the safety of local communities during emergencies.

LMAs' Lack of Maintenance of Their Levees and Water Resources' Reluctance to Intervene Could Heighten Risks to Surrounding Communities

Key Points

- Water Resources rated nearly one-third of 102 local maintaining agencies (LMAs) as performing *unacceptable* maintenance in 2025, mainly because of their recurring deficiencies in managing animals and vegetation. These deficiencies may either cause structure problems in levees or prevent engineers from identifying those problems. LMAs say they cannot afford the needed work.
- Water Resources has not used the full extent of its authority to address the risks that the chronically underperforming LMAs pose by forming state-managed maintenance areas to take over their maintenance. Further, although the department's targeted repair programs and systemwide flood-risk reduction efforts help reduce some risks resulting from the lack of maintenance, its limited funding and LMA cost-sharing requirements have prevented its timely repair of all of the critical sites it has identified for repair. The department now faces reduced resources to continue that work.

Many LMAs Have Neglected to Remediate the Maintenance Deficiencies of Their Levees Because They Claim They Cannot Afford the Expense

LMAs are required to perform routine maintenance on the levees they manage. As we discuss in the Introduction, the State entered into agreements with LMAs to manage the levees in the State Plan of Flood Control. According to these agreements, LMAs' duties include completing routine maintenance of their levees. For example, LMAs must selectively control vegetation on their levee slopes, control rodents, and repair erosion, caving, and other structural problems. Water Resources annually performs LMA maintenance inspections, as state law requires. We reviewed Water Resources' LMA maintenance inspection policy and other records, such as completed inspection reports, and found that Water Resources met the Army Corps' requirements for the content and frequency of its LMA maintenance inspections. We also reviewed inspection reports completed in 2025 for 20 LMAs with different maintenance ratings and found that Water Resources' engineers followed the department's policy in completing the inspections. To evaluate inspections of levees, we selected the 20 LMAs based on their historical maintenance ratings, as Table 2 describes, and confirmed that Water Resources adhered to its policies and procedures for the inspections. Therefore, we determined that Water Resources satisfactorily completed its inspections according to requirements.

Table 2**We Selected LMAs to Review Based on Their Historical Maintenance Ratings**

MAINTENANCE RATING	LMAS
Unacceptable in 2025	
Unacceptable in Years 2021–2025	5
Unacceptable in 2025, Acceptable in 2024	1
Minimally Acceptable in 2025	
Minimally Acceptable in Years 2021–2025	4
Minimally Acceptable in 2025, Unacceptable in 2024	2
Minimally Acceptable in 2025, Acceptable in 2024	1
Acceptable in 2025	
Acceptable in 2025, Unacceptable in 2024	2
Acceptable in 2025, Minimally Acceptable in 2024	2
Acceptable in Years 2021–2025	3
TOTAL	20

Source: Water Resources inspection data.

According to Water Resources' inspection data, it gave nearly one-third of LMAs *unacceptable* maintenance ratings in 2025 for failing to perform their required

Examples of Maintenance Rating Calculations

- If Water Resources rates more than 20 percent of the miles of levee that an LMA manages as *minimally acceptable*, Water Resources rates the LMA as *unacceptable*.
- If Water Resources rates at least 5 percent of the levee miles that an LMA manages as *unacceptable*, Water Resources rates the LMA as *unacceptable*.
- If Water Resources rates less than five percent of the miles of levee that an LMA manages as *unacceptable*, Water Resources rates the LMA as *minimally acceptable*.

Source: Water Resources.

routine maintenance on the levees they manage. After its staff complete inspections, Water Resources calculates the percent of miles of levees under an LMA's management that its engineers rated as *unacceptable* or *minimally acceptable* to determine the overall maintenance rating. The text box shows examples of how Water Resources determines its overall maintenance ratings. As Table 3 shows, Water Resources rated 32 of the 102 LMAs as *unacceptable* during its fall 2025 inspections. In fact, Water Resources has rated 23 of these 32 LMAs as *unacceptable* for at least the last five years. Table C in Appendix C shows the specific hazard that each LMA with an *unacceptable* rating from 2025 poses to its surrounding area.

We found that the LMAs received *unacceptable* ratings largely because of vegetation management and animal control deficiencies. These deficiencies may either cause structure problems in levees or prevent engineers from identifying those problems. To understand the reasons for the *unacceptable* ratings that LMAs received, we reviewed the inspection reports for five LMAs from our previous selection of LMAs that Water Resources rated as *unacceptable* for at least the last five years. For the selected LMAs, we reviewed inspection reports for all of the levees they

Table 3

Levees With Unacceptable Maintenance Ratings in Fall 2025 Place Hundreds of Thousands of Lives at Risk and Threaten Billions of Dollars in Damages

YEARS IN UNACCEPTABLE CONDITION	NUMBER OF LMAS	POPULATION AT RISK	NUMBER OF BUILDINGS AT RISK	VALUE OF BUILDINGS AT RISK	ACRES OF FARMLAND AT RISK
5 years or more	23	161,421	101,621	\$14,013,810,000	250,614
Less than 5 years	9	106,141	31,409	24,930,560,000	50,178
TOTAL	32	267,562	133,030	\$38,944,370,000	300,792

Source: Water Resources and Army Corps data.

managed going back to 2021 to understand what deficiencies led Water Resources to give the LMAs their ratings and to evaluate whether the LMAs had the same deficiencies year to year or deficiencies that worsened over time. As the text box shows, vegetation management and animal control were among the most common reasons cited by Water Resources for its ratings of the five LMAs we reviewed. Table D in Appendix D provides key information about these LMAs and a summary of their deficiencies as of fall 2025.

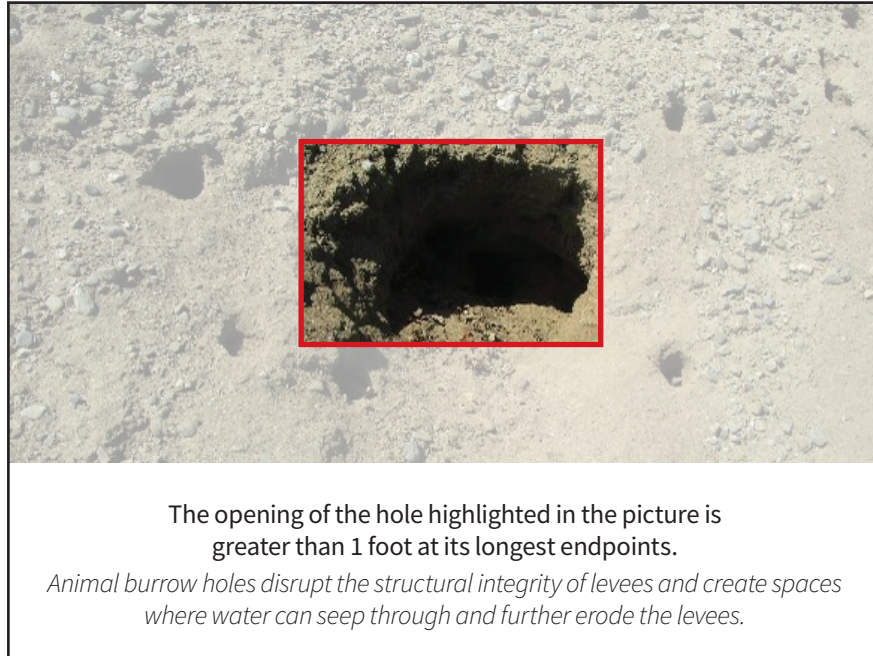
One of the LMAs that we reviewed—Madera County Flood Control and Water Conservation Agency—received a rating of *unacceptable* in 2025. According to Water Resources’ inspection report, of the more than 26 miles of levees that the LMA manages, approximately 17 miles were in *unacceptable* or *minimally acceptable* condition. Water Resources’ inspection reports noted erosion at one of the levees, a condition that it had first identified in 2007 and that the LMA still had not resolved. In their reports, Water Resources’ engineers also noted that dense vegetation, which had been present since 2012, was obscuring their view of the erosion.

Some of the deficiencies, like animal burrows and erosion sites, can have a direct impact on the structural integrity of levees. When LMAs do not backfill animal burrows, such as those that Figure 13 shows, the holes can create a seepage path through the levee, weakening its structural integrity. Erosion sites are areas where erosion—the displacement of solid particles originating from soil, rock, and other sediments—is occurring near or on a levee. If erosion encroaches into a levee or its foundation, it can threaten the integrity and stability of a levee and is a sign that the levee is near failure and would reasonably be expected to fail during a single flood season or high-water event.

Common Levee Maintenance Deficiencies at the Five LMAs We Reviewed

1. Lack of vegetation management at 5 LMAs.
2. Improper animal control at 4 LMAs.
3. Erosion sites present at 2 LMAs.
4. Unpermitted encroachments present at 2 LMAs.
5. Lack of levee crown maintenance at 2 LMAs.

Source: Water Resources.

Figure 13**Animal Burrows Can Allow Water to Access and Erode Cores of Levees**

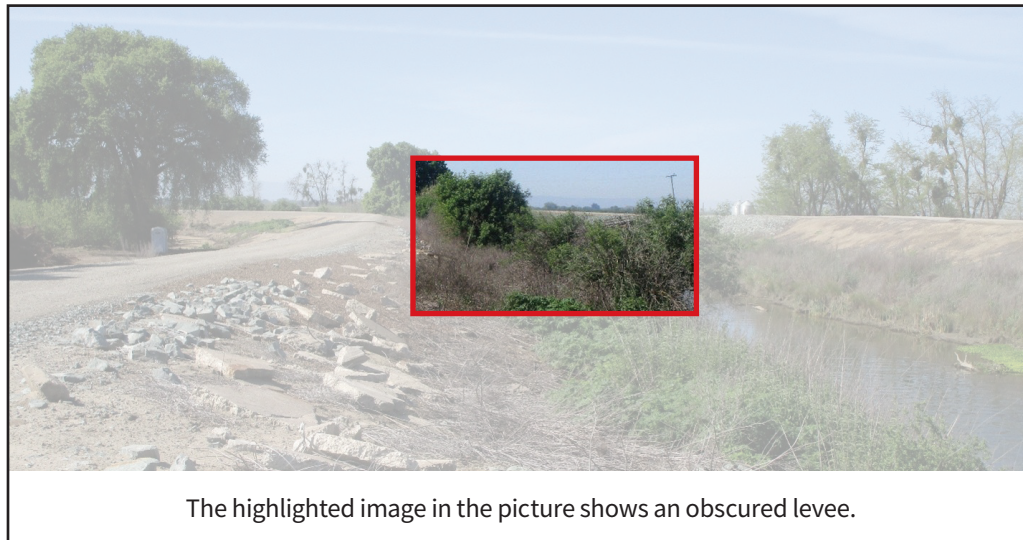
Source: Auditor photograph taken during on-site visit in March 2026.

Other common levee maintenance deficiencies do not directly affect the structural integrity of levees but can still pose significant problems. Because Water Resources engineers mainly perform their inspections of hundreds of miles of levees visually from vehicles while driving on top of the levees, large amounts of overgrown vegetation, as Figure 14 shows, make it difficult for the engineers to identify deficiencies like animal burrows and erosion sites that do affect levees' structural integrity. Large woody vegetation and large encroachments, such as abandoned vehicles and debris, can also affect engineers' ability to properly inspect levees. If significant deficiencies are hidden from engineers' view, the engineers cannot identify them, and the LMA cannot address them. Moreover, encroachments and woody vegetation can impede Water Resources' and other agencies' efforts to service levees during emergencies. For example, a fallen tree trunk, thick shrubs, or an unpermitted encroachment, such as a chain-link fence, could prevent a truck from reaching the point at which a levee needs repair. Such delays could lead to more damage and potential levee failure.

Routine maintenance of levees is important because it reduces the likelihood that levees will fail and cause flooding that would damage property and endanger lives. Small levee deficiencies can progress to more critical deficiencies that can lead to a levee failing during a high-water event. For example, dry-weather failures occur occasionally in the Delta Region and can be attributed to factors such as burrowing animals, pre-existing weaknesses in levees and their foundations, slow deterioration

Figure 14

Overgrown Vegetation Obscures the Ability of Engineers to See Problems Like Animal Holes



Source: Auditor photograph taken during on-site visit in March 2026.

of levees over time, and other circumstances like high astronomical tides. Specifically, levees in the Delta Region can experience high-water events that are caused by high tides bringing increased water from the ocean into the levee systems. The most recent example of a dry-weather failure is the June 2004 Upper Jones Tract levee breach, which caused \$50 million in damage. Although the Upper Jones Tract levee is not within the State Plan of Flood Control, it serves as an example of how LMAs' lack of maintenance increases the risk that their levees could fail and flood the surrounding area. Fifteen of the 32 LMAs that Water Resources rated as *unacceptable* in 2025 manage levees located in the Delta Region.

Water Resources stated that LMAs do not maintain their levees at *acceptable* levels because they cannot afford the cost of the maintenance work, among other reasons. According to Water Resources' management, Water Resources does not have policies or a process that require an LMA to improve its levee maintenance to address identified deficiencies. However, according to the managers, Water Resources' staff have learned through informal conversations with LMAs that they do not maintain their levees because they cannot afford to complete repair work and they cannot force landowners to remove encroachments. Further, according to the managers, some LMAs have stated that they face environmental permitting restrictions that delay or prevent them from completing necessary repairs. According to its May 2023 Operation, Maintenance, Repair, Rehabilitation, and Replacement Cost Evaluation and Historical Expenditure Memorandum, Water Resources estimates that it and LMAs combined require at least \$165 million more annually to fully address levee maintenance in the State Plan of Flood Control over the next 30 years.

In our interviews with some LMAs, they confirmed that the cost of work is the reason they do not maintain their levees. We spoke with representatives from two LMAs to seek their perspectives. These LMAs confirmed that they could not afford the cost of their maintenance solely from the revenue that they generated from their assessments on landowners. In one case, the levees that an LMA managed were located on land owned by only two landowners. A representative of that LMA with whom we spoke, who was also a landowner, claimed that the landowners could not afford the cost of a contract to have the levee maintained and did not have the time to complete the work themselves. The representative stated that he did not have sufficient information about state or federal grant programs to actively seek funding to help pay for the work. In another case, a representative of a county that manages the LMA explained that the LMA's inability to afford maintenance was largely due to the county applying the LMA assessment revenue to its Educational Revenue Augmentation Fund, as state law requires.⁹ The representative explained further that the county tried to raise its assessment amount, but it had to get voter approval to do so, and the action failed. The representative also noted that the county relied heavily on Water Resources' Flood Maintenance Assistance Program (FMAP) funding to support the LMA's maintenance costs. The county was awarded \$202,600 through the program in calendar year 2024. However, Water Resources eliminated the program in fiscal year 2024–25 after the Legislature cut the allocation for operations, maintenance, repair, rehabilitation, and replacement that it used for that purpose. The LMA representatives stated that losing FMAP funding put a strain on the county's financial resources.

Moreover, the cost of acquiring environmental permits may be preventing some LMAs from maintaining their levees in a better condition. Water Resources' management and the Board's chief engineer noted that permitting and environmental restrictions prevent and delay LMAs from addressing their maintenance deficiencies. The representative from the county LMA also noted that the cost of complying with the California Environmental Quality Act was a barrier to resolving its levee deficiencies. The cost for it to acquire the required environmental permits is more than \$1.4 million, which is more than half of the total cost of the work that would bring its levees back to *acceptable* ratings.

The State Has Not Used the Full Extent of Its Authority to Limit the Risks That LMAs' Insufficient Maintenance Poses to the Public

The State has the responsibility to repair levees when LMAs cannot maintain them at required conditions. The State assured the federal government that it would maintain project levees in accordance with federal standards. Consequently, even though the State established agreements with LMAs to perform the routine maintenance of project levees, the State is ultimately responsible for ensuring that the levees are maintained. However, the State has not used the full extent of its authority to ensure that project levees are maintained acceptably.

⁹ Because Madera County collects revenue from landowners through ad valorem taxes instead of special assessments or property-related fees to pay for LMA maintenance costs, state law allows for the LMA's revenue to be applied to the Educational Revenue Augmentation Fund.

Maintenance Areas

When Water Resources determines that an LMA is not maintaining its project levees according to federal regulations, it must start the process in which the State takes over maintenance of those levees. Because Water Resources bases its maintenance inspection criteria on federal standards, assigning an LMA an *unacceptable* maintenance rating indicates that the LMA has not maintained its levees in accordance with federal standards. State law establishes that in these situations, Water Resources must initiate proceedings to convert the LMA's levees into a state-managed maintenance area. By doing so, Water Resources takes over the maintenance responsibility, while the landowners who benefit from the levee continue to hold financial responsibility for the maintenance. Water Resources must provide the LMA an opportunity to protest the determination. If the LMA's protest is unsuccessful, Water Resources then proceeds to form the maintenance area, for which counties continue to charge landowners the costs of maintenance.

Water Resources has not formed a maintenance area to ensure that project levees are maintained in *acceptable* condition. According to Water Resources' management, because LMAs have provided assurances to the State and the federal government that they will maintain their levees to the required standard, it is the responsibility of the LMA to correct maintenance deficiencies. Water Resources would exercise its authority to intercede and form a maintenance area only after careful consideration of how its resources can be prioritized to provide the greatest flood-risk reductions possible. According to the managers, Water Resources does not believe that forming maintenance areas is an effective long-term strategy to reduce the risk attributable to LMAs' lack of maintenance because the department does not consider *unacceptable* maintenance ratings to be the only sign of increased risk. The managers explained that the purpose of the maintenance ratings is to evaluate whether Army Corps standards are being met. They further stated that determining the risk a levee poses requires considering its design, an LMA's emergency response, how land around the levee is used, and how water interacts with the levee. The Army Corps requires that the levees be maintained in such a manner as may be necessary to obtain the maximum benefits of the levee, including repairing damage caused by erosion or other forces and ensuring that no caving has occurred that might affect the stability of the levee. The managers acknowledged that LMAs' *unacceptable* levee maintenance increases the chance that a levee may fail but cautioned that the scale of increased risk is unknown. They said that the real benefit of LMAs performing *acceptable* maintenance is that their levees would then qualify for federal funding to repair problem sites after emergencies. However, they stated that maintaining the *acceptable* rating is not good value for LMAs that manage levees that protect smaller populations, because they are less likely to qualify for the federal funding, which is allocated partly based on the number of people the levee repair will help to protect.

Water Resources' explanation for not forming maintenance areas does not take into consideration long-term implications, and it neglects to consider that landowners benefiting from levees would be responsible for the costs of the maintenance area. Even though LMA maintenance ratings do not serve as a comprehensive evaluation of risk that a levee poses, the managers acknowledged that unacceptably maintained levees have a greater chance of failing. Consequently, although

maintaining levees in *acceptable* condition may not guarantee that a levee does not fail, particularly in extremely adverse situations, that condition should nonetheless decrease the likelihood that levees would fail under normal circumstances.

Further, Water Resources' concern that forming a maintenance area is not a good prioritization of its resources overlooks the benefit that it can receive by recouping the cost of forming the maintenance area. According to state law, when Water Resources acts to form a maintenance area in response to an LMA's inadequate maintenance, the cost of forming a maintenance area and the ongoing work performed by maintenance areas is assessed to the landowners that benefit directly from the levees.

FMAP Program

Although Water Resources does not believe that LMAs' *unacceptable* maintenance ratings signify a risk that must be systematically addressed, it has nonetheless provided funding to LMAs to support their maintenance efforts. Starting with the Budget Act of 2018, Water Resources used a portion of its operations, maintenance, repair, rehabilitation, and replacement allocation for several years to supplement LMA maintenance costs through its FMAP program. The FMAP program helped LMAs obtain *acceptable* maintenance ratings until 2024, when Water Resources no longer had funds to support the program.

Despite Water Resources' management agreeing that LMAs' lack of maintenance increases the chance that a levee may fail, they reiterated that the purpose of the maintenance inspections is to evaluate whether LMAs are performing the maintenance required according to their agreements, but they do not by themselves signify risk of failure. This perspective aligns with Water Resources' description of the inspection program's purpose: to verify that local agencies are performing their legal and statutory responsibilities according to state law and their legal obligations with the State. However, Water Resources' annual inspection report, which combines the results of all of Water Resources' individual LMA inspection reports for the year and provides background regarding its programs, demonstrates the importance of the inspection results beyond compliance with federal regulations. The report explains that the criteria Water Resources uses for the inspections provide realistic views of the severity of deficiencies and of the significant differences among LMA maintenance performances. Further, the annual report says that using these criteria for inspections protects levee operability and integrity by requiring open visibility and access to those portions of the levee most susceptible to high-water damage while retaining vegetation that possesses both habitat and environmental value. Therefore, we disagree with Water Resources' position that the ratings themselves do not signify increased risk of failure.

State-Funded Programs

Water Resources uses state-funded programs to reduce the risk that levees pose, including those that LMAs with *unacceptable* maintenance ratings manage. According to Water Resources management, instead of focusing on overall

LMA maintenance ratings as a sign of risk, Water Resources focuses on the details of its inspection results, through which it identifies sites on levees that may not maintain integrity during high-water events. For example, Water Resources uses its Flood System Repair Program to work with LMAs to repair deficient sites that it identifies through its maintenance inspections and through LMA reporting. The Flood System Repair Program addresses levee deficiencies that Water Resources identifies as *critical*, meaning they could reasonably result in the levee's failure during a single flood season or high-water event. The Flood System Repair Program has also provided funding to repair some sites it identified as *serious* that were in danger of reaching *critical* status. The program uses a risk-based analysis to target sites that are likely to cause the most harm. Water Resources initiates repairs on those sites, including within poorly maintained levees, regardless of the maintenance performance of the LMA, thereby reducing the risk that the levees will fail. According to its 2022 Central Valley Flood Protection Plan update, Water Resources implemented the Flood System Repair Program in 2017 and has since spent \$18.6 million working with 10 LMAs with *unacceptable* maintenance ratings to repair 16 sites on their levees. Water Resources also uses its Storm Damage Emergency Repair Program and Pipe Repair Program for similar purposes.

Nevertheless, these programs do not address all *critical* sites, and Water Resources may not be able to fund the programs at effective levels. Since 2012, when Water Resources began to catalog levee sites that it identified as needing repair, it has been unable to complete repair projects as of August 2026 for 14 of the 48 *critical* sites that it had identified. Thirteen of these 14 sites have been *critical* sites in the Flood System Repair Program site catalog since at least 2023, and the other site was upgraded from *serious* to *critical* in 2025. According to a Water Resources manager, Water Resources has not completed all of the repairs of *critical* sites because it has not had enough funding to support those projects. Further, he stated that a few LMAs have declined to participate in the program because they determined that they could not afford their share of expenses. For the same reasons, Water Resources has also not been able to complete repairs at all the sites it has identified as *serious* in terms of risk of failure. This is problematic because Water Resources has relied heavily on funding it received from Proposition 1E, passed in 2006, to support nearly half of its Flood System Repair Program project costs. Water Resources has since exhausted that funding source and does not have additional funding available to repair projects for new *critical* sites that it will inevitably identify. Absent additional funding, it will only have its general fund allocation to support the Flood System Repair Program, meaning that it will likely complete fewer projects in the future than it has completed thus far.

Systemwide Projects

Water Resources also completes various systemwide improvement projects that reduce the water load levees face, and in doing so it indirectly reduces the risk posed by levees with *unacceptable* maintenance ratings. According to Water Resources management, as part of the Central Valley Flood Protection Plan, Water Resources plans to complete projects that would ease the impact of high-water events on problematic levees. For example, Water Resources worked with the Army Corps and

local agencies to develop a forecast-informed approach to operating the Lake Oroville Reservoir and the New Bullards Bar Reservoir. This new operations approach uses improved monitoring, weather forecasts, and runoff projections to build more flexibility and efficiency into reservoir operations and is meant to reduce flood risk for communities along the Yuba River and Feather River during extreme atmospheric-river storm events. Nonetheless, according to Water Resources management, these approaches provide cross-regional benefits but are expensive, lengthy, and do not directly mitigate risks in other parts of the system that are not part of the project benefit area.

Army Corps' Public Law 84-99 Program

Additionally, Water Resources and the Board have worked with LMAs to help them obtain federal funding to repair levee sites. Specifically, according to the Board's chief engineer, the Board encourages LMAs that are deemed ineligible to participate in the Army Corps' Public Law 84-99 funding program—which provides funding to repair levee sites after emergencies—to gain or regain eligibility in the program by developing a Systemwide Improvement Framework (SWIF) plan. Water Resources provided funding through its FMAP program that LMAs used to sustain and improve their eligibility for the program. The Board's chief engineer explained that through a SWIF plan, the LMA implements a long-term plan to bring its system into compliance with federal requirements, which could allow the LMA to make progress toward addressing its deficiencies. According to the Board's chief engineer, having a SWIF plan in place indicates to the Board that the LMA is taking action to improve the maintenance of its levee. The Board reported that the percent of project levee miles managed by LMAs, regardless of maintenance rating, that participated in the program has increased from 36 percent in 2016 to 86 percent in 2025. However, 15 of the 32 LMAs with *unacceptable* ratings are not active in the program.

Encroachments

The Board is responsible for taking enforcement actions against unpermitted encroachments, but it is unable to address its workload. The Board takes enforcement actions against landowners' unpermitted encroachments on levees, which the Board's chief engineer described as a statutory requirement for the Board. As we discuss earlier, unpermitted encroachments can prevent engineers from observing deficiencies and can impede agencies from responding to emergencies on levees. Because the Board is unable to immediately address all encroachments, it focuses its efforts on the most egregious encroachments that cause damage to the State Plan of Flood Control or that have the potential to cause damage. Water Resources' annual inspection reports identified approximately 3,000 encroachments each year in 2024 and 2025 for the Board to address. However, the Board addressed only a total of 61 encroachments during those years, according to its chief engineer. The chief engineer also indicated that the Board's enforcement process is administratively burdensome and that it has sought statutory changes to make the process more efficient.

Recommendations

Legislature

Dam Safety Requirements

To ensure that dam owners are prepared to address needed repairs for their dams, the Legislature should amend state law to require that dam owners with *high* and *extremely high* hazard classifications create ongoing maintenance and repair plans for their dams and submit them to Water Resources for review and approval as part of their annual inspections. The Legislature should require that dam owners update these plans every five years and include the following details:

- All the necessary maintenance and repairs that an owner should reasonably expect to conduct during the next 10 years.
- A reasonable estimate of the amount of funding necessary to perform the expected maintenance and repair for the next 10 years.
- Identification of an appropriate emergency fund amount to hold for maintenance and repairs, including for emergencies.
- A determination of what circumstances could require the dam to be decommissioned and a plan to do so.

To ensure that dam owners develop or make necessary revisions to their EAPs promptly for Cal OES's review and approval, the Legislature should do the following:

- Amend state law to include deadlines for dam owners to submit EAPs to Cal OES if Water Resources classifies their dams as a *significant* or greater hazard after June 30, 2017.
- Require Cal OES to establish regulations that establish reasonable timelines for when dam owners must resubmit their EAPs.

Water Resources' Dam Safety Enforcement

To ensure that all owners of *high* and *extremely high* hazard dams develop sufficient ongoing maintenance and repair plans, the Legislature should do the following:

- Require Water Resources to review and approve the plans that owners of *high* and *extremely high* hazard dams prepare and submit to it within 60 days of the submission.
- Require Water Resources to verify during its annual inspections that owners of dams have set aside the necessary financial reserves in accordance with their plans.

- Provide Water Resources with the authority to use its existing enforcement means to take actions against dam owners that do not develop sufficient plans for maintenance and repairs of their dams on time or that do not maintain adequate emergency funds.

To ensure that the safety of the public is addressed before a dam's condition results in an emergency, the Legislature should amend state law to allow Water Resources to order the condemnation and decommissioning of a dam when Water Resources' other means of enforcement are unsuccessful.

The Board

To improve its ability to address unpermitted encroachments on levees, by January 2027 the Board should seek the statutory changes that are required to streamline its encroachment enforcement process and should annually request the amount of funding necessary to complete its work.

Cal OES

To ensure that all owners of dams submit and resubmit required EAPs, Cal OES should immediately report to Water Resources those dam owners who are delinquent in submitting or resubmitting their EAPs so that Water Resources can take the appropriate enforcement action against those owners. Further, it should establish a process to report such information to Water Resources on a quarterly basis, including reporting dam owners that do not meet new deadlines that the Legislature establishes.

Water Resources

To ensure that it exercises its full enforcement authority over the safety of dams, Water Resources should develop processes by January 2027 to do the following:

- Issue a Notice of Violation to dam owners that have not met Water Resources' orders to address their dams' deficiencies within a reasonable period, including when dam owners miss key repair project milestones because of their lack of resources.
- Issue an Administrative Complaint to each dam owner that does not take corrective action according to the Notice of Violation.
- Ensure that it has allocated sufficient funding to cover the costs associated with these enforcement actions.

To ensure that it has sufficient financial resources to support its enforcement of dam safety, Water Resources should immediately seek approval from the Department of Finance to charge dam owners fees sufficient to support that work.

To ensure that all owners of dams submit required EAPs, when Cal OES notifies Water Resources of delinquent owners—including those dam owners that do not meet new deadlines that the Legislature establishes—Water Resources should immediately take appropriate enforcement action against those owners for failing to submit or resubmit required EAPs in a timely manner.

To alleviate delays and increased project costs related to both dams and levees, by March 2027, Water Resources should identify all impediments, including environmental permitting, that could cause delays or excessive costs in completing dam and levee repair work or in decommissioning a dam and develop a plan by August 2027 to work with appropriate parties, including the Legislature, to minimize those impacts.

To ensure that levees are maintained properly and to comply with state law, Water Resources should immediately initiate the process to form a maintenance area when it determines an LMA does not meet its federal requirements.

To improve its ability to address high-risk sites on levees, by January 2027 Water Resources should annually identify the sites that require repair in the next year and seek the funding needed to allow it to address all the *critical* and *serious* sites that it identifies on project levees.

We conducted this performance audit in accordance with generally accepted government auditing standards and under the authority vested in the California State Auditor by Government Code section 8543 et seq. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on the audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Respectfully submitted,



GRANT PARKS
California State Auditor

October 13, 2026

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Appendix A

Dam Condition Assessments and Hazard Classifications

Water Resources is responsible for inspecting and assigning a condition assessment to each jurisdictional dam in the State. During its annual inspections, Water Resources must evaluate whether the dam owners have adequately maintained their dams and whether the dams have any signs of deficiencies that the owners need to remediate. In addition, state law requires that Water Resources assign each dam a hazard classification based on the number of people who would be in danger if the dam failed and the dollar value of damage the dam's failure could cause. As of May 2026, Water Resources assessed 57 dams as either *poor* or *unsatisfactory*. Table A lists 40 dams that Water Resources assessed as of May 2026 as in *poor* or *unsatisfactory* condition and that had a hazard classification of *high* or *extremely high*.

Table A

Estimated Risks to Lives and Property That High and Extremely High Hazard Dams in Poor and Unsatisfactory Condition Pose

DAM*	APPROXIMATE AGE OF DAM (IN YEARS)	CONDITION RATING	HAZARD RATING	APPROXIMATE LIVES AT RISK	APPROXIMATE DOLLARS AT RISK
1	More than 75	Poor	Extremely High	50,000 to 100,000	\$10 billion to \$50 billion
2	More than 75	Poor	Extremely High	1,000 to 25,000	1 billion to 10 billion
3	More than 75	Poor	Extremely High	1,000 to 25,000	1 billion to 10 billion
4	More than 75	Poor	Extremely High	Less than 1,000	10 million to 100 million
5	50 to 75	Poor	Extremely High	100,000 to 500,000	10 billion to 50 billion
6	More than 75	Poor	Extremely High	25,000 to 50,000	1 billion to 10 billion
7	More than 75	Poor	High	Less than 1,000	100 million to 500 million
8	25 to 50	Poor	High	Less than 1,000	10 million to 100 million
9	More than 75	Poor	Extremely High	100,000 to 500,000	10 billion to 50 billion
10	More than 75	Poor	High	Less than 1,000	Undetermined
11	More than 75	Poor	Extremely High	25,000 to 50,000	1 billion to 10 billion
12	More than 75	Poor	Extremely High	1,000 to 25,000	500 million to 1 billion
13	More than 75	Poor	Extremely High	1,000 to 25,000	1 billion to 10 billion
14	50 to 75	Poor	High	Less than 1,000	100 million to 500 million
15	More than 75	Unsatisfactory	Extremely High	1,000 to 25,000	1 billion to 10 billion
16	50 to 75	Poor	Extremely High	1,000 to 25,000	1 billion to 10 billion

continued on next page ...

DAM*	APPROXIMATE AGE OF DAM (IN YEARS)	CONDITION RATING	HAZARD RATING	APPROXIMATE LIVES AT RISK	APPROXIMATE DOLLARS AT RISK
17	More than 75	Poor	High	1,000 to 25,000	\$100 million to \$500 million
18	More than 75	Poor	High	Less than 1,000	10 million to 100 million
19	More than 75	Poor	Extremely High	100,000 to 500,000	50 billion to 100 billion
20	More than 75	Poor	High	Less than 1,000	10 million to 100 million
21	More than 75	Poor	Extremely High	1,000 to 25,000	100 million to 500 million
22	More than 75	Poor	High	Less than 1,000	1 million to 10 million
23	More than 75	Poor	High	Less than 1,000	10 million to 100 million
24	More than 75	Poor	Extremely High	1,000 to 25,000	1 billion to 10 billion
25	More than 75	Poor	High	Less than 1,000	10 million to 100 million
26	—	Poor	High	Less than 1,000	Undetermined
27	More than 75	Poor	Extremely High	1,000 to 25,000	500 million to 1 billion
28	50 to 75	Poor	High	Less than 1,000	Less than 1 million
29	More than 75	Poor	Extremely High	1,000 to 25,000	1 billion to 10 billion
30	More than 75	Poor	High	Less than 1,000	1 million to 10 million
31	50 to 75	Poor	Extremely High	Less than 1,000	100 million to 500 million
32	More than 75	Poor	Extremely High	100,000 to 500,000	50 billion to 100 billion
33	More than 75	Poor	Extremely High	1,000 to 25,000	1 billion to 10 billion
34	More than 75	Poor	High	Less than 1,000	Less than 1 million
35	50 to 75	Poor	High	Less than 1,000	10 million to 100 million
36	More than 75	Poor	High	Less than 1,000	100 million to 500 million
37	More than 75	Poor	High	Less than 1,000	100 million to 500 million
38	More than 75	Poor	Extremely High	Less than 1,000	100 million to 500 million
39	More than 75	Poor	High	Less than 1,000	Undetermined
40	50 to 75	Poor	High	Less than 1,000	Undetermined

Source: Water Resources.

* We have redacted the names of the dams because Water Resources informed us that revealing information about the conditions and vulnerabilities of specific dams could pose security concerns. It believes that the public interest in withholding the names outweighs that of revealing them.

Appendix B

Deficiencies Related to the Six Dams We Reviewed That Were in Fair, Poor, or Unsatisfactory Condition

As part of our audit, we selected one dam that was in *fair* condition, four dams that were in *poor* condition, and one dam that was in *unsatisfactory* condition to review in detail. Table B presents key information about these six dams and a summary of their deficiencies as of April 2026.

Table B
Each Dam Has Deficiencies That Affect Its Ability to Function Appropriately

DAM AND AGE*	DESCRIPTION OF DEFICIENCY	AGE OF DEFICIENCY	EFFECT OF DEFICIENCY	STATUS OF DEFICIENCY
Dam A (More than 75 years)	Outlet system does not meet drawdown requirements.	At least 9 years	The outlet system would not be able to reduce or drain the reservoir in a sufficient amount of time during an emergency. As a result, the dam could fail before the dam owner could reduce the reservoir to safe levels, which in turn could cause flooding downstream.	The dam owner submitted a plan in May 2023. As of April 2026, a contractor has started to develop designs for a repair project to address this deficiency. The dam owner stated that it will likely complete the project by summer 2027.
	The curve of the spillway wall permits water to splash onto the supporting earth behind the wall when the spillway passes water of a pressure of 3,500 cubic feet per second.	At least 9 years	Water accumulation on the earth behind the spillway wall could erode the earth and cause the wall to collapse, which could prohibit the spillway from safely passing water. As a result, the reservoir level would rise until it overtops the crest of the dam, which would cause flooding and could erode the dam until it fails.	The dam owner stated that it does not currently have sufficient funding to address this repair project, which may delay completion of the project.
	The wall at the mouth of the spillway tilts inward due to pressure applied by a hillside behind it.	At least 9 years	The wall could eventually collapse into the spillway and the spillway would thus not be able to safely pass water. As a result, the reservoir level would rise until it overtops the crest of the dam, which would cause flooding and could erode the dam until it fails.	As of April 2026, the owner was procuring a contract to repair the deficiency. The owner acknowledged that the contracting process may inhibit it from meeting the deadline for the project by October 2026, as scheduled.

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DAM AND AGE*	DESCRIPTION OF DEFICIENCY	AGE OF DEFICIENCY	EFFECT OF DEFICIENCY	STATUS OF DEFICIENCY
Dam B (More than 75 years)	The outlet tower is seismically unstable and could collapse during a magnitude 7.8 earthquake. The outlet tower does not have a bulkhead pipe that would control the release of water that the tower retains should the tower collapse.	At least 23 years	The dam's reservoir would drain uncontrollably through the outlet tunnel and cause flooding downstream.	The dam owner explained that it did not have sufficient funds to address the project and delayed addressing it until 2021. As of April 2026, the dam owner was finalizing the design of the project and intends to finalize designs by September 2026. The dam owner anticipates construction will be completed by April 2029.
	The spillway gates may not open or close when water is behind the gates. In addition, there is severe concrete deterioration along the spillway piers and the dam crest.	At least 1 year	If the reservoir level reaches the gates, the gates may not be able to close or open, which would cause flooding downstream. In addition, if the reservoir level reaches the spillway gates in the closed position, the deteriorated concrete of the spillway may not be able to support the pressure of the water and the spillway and dam crest could collapse, which would cause uncontrollable flooding downstream.	As of April 2026, the dam owner has developed a plan to address the deficiency and is currently reviewing it. The owner intends to submit the plan to Water Resources by May 2026.
Dam C (More than 75 years)	The spillway cannot pass a probable maximum flood (PMF).	At least 9 years	During a storm that resembles the PMF, the spillway would not be able to pass the water fast enough, causing the water to flow over the crest of the dam, which would lead to uncontrolled flooding downstream and could cause the dam to fail.	In February 2019, the dam owner completed an assessment of the condition of the spillway. The dam owner later determined that the dam was seismically unstable. Water Resources explained that the dam owner paused work to first address the seismic instability of the dam.
	The entire dam is seismically unstable and would slide and experience cracking during a magnitude 7.2 earthquake.	At least 7 years	The dam could fail, causing the dam to collapse and the area downstream to flood.	In September 2023, the dam owner developed a plan and schedule to replace the entire dam with a new dam. However, in September 2025, when the dam owner was developing the designs for the replacement, a funding partner decided to withdraw its share of funding for the project. In addition, the estimated cost of the replacement project increased by approximately \$311 million. As a result, the dam owner could no longer afford the replacement project. As of April 2026, the dam owner is conducting an analysis to determine a new alternative for the repair or replacement of the dam. Water Resources has required that the dam owner complete this analysis by 2027.
	Concrete throughout the dam is severely deteriorated.	At least 3 years	The concrete allows seepage—when water penetrates the foundation of the dam—that compromises the stability of the dam.	After determining the extent of the dam's concrete deficiencies in 2022, the owner decided that it would completely replace the dam rather than retrofit it to resolve all of the dam's deficiencies.

DAM AND AGE*	DESCRIPTION OF DEFICIENCY	AGE OF DEFICIENCY	EFFECT OF DEFICIENCY	STATUS OF DEFICIENCY
Dam D (More than 75 years)	The spillway cannot pass a PMF of 54,500 cubic feet per second because the spillway is not wide and deep enough to pass the water.	At least 3 years	During a storm that resembles the PMF, the spillway would not be able to pass the water fast enough, causing the water to flow over the crest of the dam, which could cause the dam to collapse and the water from the reservoir to flood downstream areas.	In January 2026, the owner submitted to the Federal Energy Regulatory Commission (FERC) a risk analysis to address the deficiency. As of April 2026, the owner intends to complete the analysis in the first quarter of 2027. The dam owner stated that it will develop a plan and schedule to fix the spillway pursuant to this analysis.
	The dam does not meet a requirement that it be able to cycle its outlet system every year because the gates in the outlet system are inoperable due to age and extreme sediment buildup.	At least 4 years	If the dam owner opens the outlet gates, it may not be able to close the gates, which would cause uncontrolled releases of water downstream until the reservoir emptied. In addition, sediment would slow down the rate at which the gates pass water through the outlet and prevent the dam owner from reducing or draining the reservoir in a sufficient amount of time during an emergency.	Although the dam owner intended to begin construction in May 2023, it stated that Water Resources and FERC had several comments on the project that the dam owner had to address, which caused delays to the project timeline. As of April 2026, the owner has partially completed construction of the repair project and intends to complete construction in 2027.
Dam E (More than 75 years)	The spillway cannot pass a PMF because the spillway chute is too narrow to pass the water.	At least 7 years	During a storm that resembles the PMF, water would flow over the spillway chute and erode the ground around it, rendering the spillway unsafe. In addition, during a major storm, the concrete could fail and lead to erosion around the spillway. If erosion progressed up to the spillway crest, it could cause the spillway to uncontrollably release water from the reservoir downstream.	In February 2026, after the owner conducted additional investigations to understand all deficiencies, and based on Water Resources feedback, the owner submitted a plan to Water Resources that would address each of the dam's deficiencies. As of April 2026, Water Resources is reviewing this plan. The dam owner anticipates beginning construction on the interim outlet works project in 2029 and construction on the larger retrofit project in 2039. The owner stated that funding constraints have caused delays in the timeline for the retrofit project.
	The dam does not meet seismic standards and would experience deformation during a magnitude 8.0 earthquake.	At least 2 years	During a magnitude 8.0 earthquake, the dam could experience significant cracking in its embankment. The cracks could cause water to seep through the embankment and lead to dam failure, which would cause flooding downstream.	
	The dam does not have the required emergency outlet structure to meet drawdown requirements.	At least 4 years	The owner uses existing outlet structures to achieve drawdown requirements. However, the structures could be damaged during an emergency like a major earthquake. The existing outlet structures may not be able to reduce or drain the reservoir in a sufficient amount of time. As a result, the dam could fail before the dam owner could reduce the reservoir to safe levels, causing flooding downstream.	

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DAM AND AGE*	DESCRIPTION OF DEFICIENCY	AGE OF DEFICIENCY	EFFECT OF DEFICIENCY	STATUS OF DEFICIENCY
Dam F (50 to 75 years)	The spillway cannot not pass a PMF in part because the width of the spillway is too narrow.	At least 13 years	During a storm that resembles the PMF, the spillway would not be able to pass the water fast enough, causing the water to flow over the crest of the dam, which would cause flooding downstream. As the water goes over the crest, it could erode the dam and lead to the collapse of the dam, causing the entire reservoir to flood downstream areas.	The dam owner needed more time than it originally anticipated to conduct evaluations of alternatives to address the deficiencies. As such, in 2019, the dam owner delayed construction of the outlet works and spillway to 2024 and 2026, respectively. However, the dam owner subsequently delayed construction three more times in—February 2021, May 2025, and March 2026. As of April 2026, the dam owner intends to complete construction for the outlet works and the spillway by October 2032 and August 2036, respectively. Nevertheless, the dam owner acknowledged that it does not have sufficient funds to award a contract for the repair projects and that funding issues will likely cause further delays.
	The dam's outlet works, including the intake tower, pressure conduit, and penstock, do not meet seismic standards and would collapse or rupture during a magnitude 7.2 earthquake. The intake tower has also experienced sedimentation build-up.	At least 13 years	During a 7.2 or higher magnitude earthquake, the reservoir would drain through the outlet system and erode the dam's embankment, which could lead to dam failure and flooding downstream. In addition, sediment build-up in the intake tower may clog the intake tower and prevent the owner from draining the reservoir in a sufficient amount of time during an emergency. As a result, the dam could fail before the owner could reduce the reservoir to safe levels, causing flooding downstream.	

Source: Water Resources' inspection reports and interviews with dam owners.

* We have redacted the names of the dams because Water Resources informed us that revealing information about the conditions and vulnerabilities of specific dams could pose security concerns. It believes that the public interest in withholding the names outweighs that of revealing them.

Appendix C

Hazards Related to Unacceptable Levee Conditions

In 2025, Water Resources determined that 32 LMAs were in *unacceptable* condition. As a result, nearly 270,000 people and approximately \$39 billion in property may be at risk, including critical infrastructure. For our evaluation, we analyzed hazard risk data from the Army Corps that the Board relies on for its planning considerations. The Army Corps maintains hazard risk data using a comprehensive system approach to determine levee-related flood risks, rather than evaluating risks related to each LMA. In a 2024 report on flood protection services, the Yolo County Local Agency Formation Commission—a county agency that, in part, conducts studies of existing government agencies and encourages the efficient provision of government services— noted an inherent interdependency among the different LMAs within each levee system. As a result, even if an LMA manages only a small portion of a levee system, the failure of its portion could cause harm to the entire basin that the system protects. Table C presents the hazards posed by the levees that each of the 32 LMAs manage.

Table C

Water Resources Rated These 32 LMAs as Performing Unacceptable Maintenance in 2025

LMA	MAINTAINED AREA	LEEVE LOCATION (COUNTY)	LEEVE SYSTEM	LEEVE SYSTEM RISKS TO			
				BUILDINGS	PEOPLE	PROPERTY VALUE	CRITICAL STRUCTURES
Levee District No. 0002 (Glenn County)	Sacramento River	Glenn	Sacramento River West Bank	3,770	10,681	\$3,000,000,000	50
Levee District No. 0003 (Glenn County)	Sacramento River	Glenn	Sacramento River East Levee	236	496	64,000,000	3
Brannan-Andrus Levee Maintenance District	Georgiana Slough and Sacramento River	Solano	Brannan-Andrus LMD—RD 0556	873	1,860	170,000,000	7
Eastern Honcut Creek	Van Tress	Yuba	Honcut Creek Area—Eastern	4	3	1,000,000	0
Madera County Flood Control and Water Conservation Agency (FCWCA)	Ash Slough, Berenda Slough, and Fresno River	Madera	Ash Slough left bank—Berenda Slough right bank; Ash Slough right bank; Berenda Slough left bank—Fresno River right bank; Fresno River left bank	305	966	137,000,000	2
Solano County Public Works	Mellin Levee	Solano	Mellin Levee—Rio Vista	26	120	9,000,000	0

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LMA	MAINTAINED AREA	LEEVE LOCATION (COUNTY)	LEEVE SYSTEM	LEEVE SYSTEM RISKS TO			
				BUILDINGS	PEOPLE	PROPERTY VALUE	CRITICAL STRUCTURES
Merced County Stream Group	Black Rascal Diversion and Owens Creek Diversion	Merced	Merced Stream Group—Black Rascal—Unit 1; Merced Stream Group—Black Rascal—Unit 2; Merced Stream Group—Owens Creek—Unit 1; Merced Stream Group—Owens Creek—Unit 2	7,580	29,603	\$3,018,000,000	19
Plumas County	North Fork Feather River	Plumas	North Fork Feather River at Chester—East Levee; North Fork Feather River at Chester—West Levee	352	653	75,560,000	2
California Department of Fish and Game	Shea Levee	Shasta	No data available				
Reclamation District No. 0010	Honcut	Yuba	RD 0010—Honcut	504	1,351	160,000,000	0
Reclamation District No. 0307	Lisbon	Yolo	Sac Yolo South (RD 999)	569	1,113	170,000,000	6
Reclamation District No. 0341	Sherman Island	Sacramento	RD 0341—Sherman Island	132	261	26,000,000	0
Reclamation District No. 0501	Ryer Island	Solano	RD 0501—Ryer Island	98	238	35,000,000	0
Reclamation District No. 0524	Middle Roberts Island	San Joaquin	RD 0524 and RD 0544—Roberts Island	441	831	140,000,000	0
Reclamation District No. 0544	Upper Roberts Island	San Joaquin	RD 0524 and RD 0544—Roberts Island	441	831	140,000,000	0
Reclamation District No. 0554	Walnut Grove	Sacramento	RD 0551 and RD 0755—Pierson District; RD 0563—Tyler Island	34,462	1,589	222,000,000	13
Reclamation District No. 0556	Upper Andrus	Sacramento	Brannan-Andrus LMD—RD 0556	873	1,860	170,000,000	7
Reclamation District No. 0563	Tyler Island	Sacramento	RD 0563—Tyler Island	226	653	72,000,000	4
Reclamation District No. 0817	Carlin	Yuba	RD 0817 and RD 2103—City of Wheatland	1,593	3,275	290,000,000	8
Reclamation District No. 1602	Del Puerto	San Joaquin	RD 1602—Del Puerto	109	141	35,000,000	0
Reclamation District No. 2031	Elliot	Stanislaus	RD 2031—Elliot	158	136	47,000,000	1
Reclamation District No. 2058	Pescadero	San Joaquin	RD 2058 and RD 2095—Paradise Cut	573	4,393	200,000,000	2
Reclamation District No. 2075	McMullin	San Joaquin	RD 0017, 2094, 2096, 2075, 2064—SJ River East	13,830	47,488	12,000,000,000	42
Reclamation District No. 2089	Stark	San Joaquin	RD 0001 and RD 2089—Union Island	125	501	58,000,000	0
Reclamation District No. 2092	Dos Rios	Stanislaus	RD 2092—Dos Rios Ranch	7	10	4,000,000	0

LMA	MAINTAINED AREA	LEEVE LOCATION (COUNTY)	LEEVE SYSTEM	LEEVE SYSTEM RISKS TO			
				BUILDINGS	PEOPLE	PROPERTY VALUE	CRITICAL STRUCTURES
Reclamation District No. 2096	Wetherbee Lake	San Joaquin	RD 0017, 2094, 2096, 2075, 2064—SJ River East	13,830	47,488	\$12,000,000,000	42
Reclamation District No. 2098	Cache and Haas Slough	Solano	RD 2068 and RD 2098—Yolano-Cache Slough	15	66	8,000,000	0
Reclamation District No. 2103	Wheatland Vicinity	Yuba and Placer	RD 0817 and RD 2103—City of Wheatland; RD 2103—Grasshopper Slough	1,597	3,285	291,000,000	8
Reclamation District No. 2104	Peters Pocket Tract	Solano	RD 2104—Peters Pocket	4	9	1,000,000	0
Sutter Maintenance Yard	Hamilton Bend	Butte	Feather River—Hamilton—northeast of Afterbay Feather River right bank—Sutter Bypass east bank	24,554	52,429	3,000,810,000	114
Sutter Maintenance Yard	Nelson Bend	Sutter	Feather River—Nelson Bend West Levee	0	0	0	0
Sutter Maintenance Yard	Wadsworth Canal	Sutter	Feather River right bank—Sutter Bypass east bank; Wadsworth Canal right bank—Sutter Bypass East	25,743	55,233	3,400,000,000	119

Source: Water Resources' 2025 Inspection and Local Maintaining Agency Report and Army Corps' National Levee Database.

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Appendix D

Deficiencies Related to the Five LMAs With Unacceptable Ratings We Reviewed

As part of our audit, we selected five LMAs with *unacceptable* ratings to review in detail. Table D presents key information about these LMAs and a summary of their deficiencies as of fall 2025.

Table D
Five LMAs We Reviewed Received Unacceptable Maintenance Ratings Each Year From 2021 Through 2025

LMA	LMA UNITS	LOCATION	LENGTH	FLOOD SOURCE	SYSTEM POSES HAZARDS TO	KEY DEFICIENCIES
Reclamation District No. 2092—Dos Rios Ranch	Unit No. 01 San Joaquin River Right Bank (RB)	Stanislaus County	3.71 miles	San Joaquin River	7 buildings 10 people \$4,000,000 property value 523 acres of farmland	Water Resources rated this LMA as <i>unacceptable</i> in 2021 through 2023 primarily because of animal control, such as rodent burrows; crown surface, depressions, and rutting atop the levee; and overgrown vegetation. In 2024, the LMA resolved most of the animal control issues and crown surface deficiencies, but its overgrown vegetation progressed through 2025, with its overall rating more than tripling in magnitude from more than 10 times the <i>unacceptable</i> threshold in 2021 to nearly 32 times the <i>unacceptable</i> threshold in 2025.
Reclamation District No. 2098—Cache and Haas Slough	Unit No. 01 Yolo Bypass RB Unit No. 01 Cross Levee RB Unit No. 02 Cache Slough Left Bank (LB) Unit No. 03 Haas Slough RB Unit No. 04 Back Levee LB	Solano County	10.91 miles	Cache Slough, Haas Slough, and Yolo Bypass	15 buildings 66 people \$8,000,000 property value 876 acres of farmland 1 endangered species	This LMA was rated as <i>unacceptable</i> in 2021 through 2023 for a multitude of issues, including rodent burrows, encroachments, erosion, and overgrown vegetation. As of 2025, although the LMA has reduced some of the overgrown vegetation, it was still in <i>unacceptable</i> condition. Water Resources also noted lesser concerns with erosion from livestock, and the LMA has reduced its overgrown vegetation issues. Although still <i>unacceptable</i> , the LMA has improved its condition from nearly six times the <i>unacceptable</i> threshold in 2021 to less than three times the <i>unacceptable</i> threshold in 2025.
Levee District No. 0003 (Glenn County)	Unit No. 01 Glenn County Sacramento River LB	Glenn County and Colusa County	11.97 miles	Sacramento River	236 buildings 496 people \$64,000,000 property value 16,669 acres of farmland 1 endangered species 3 critical structures	Water Resources rated this LMA as <i>unacceptable</i> in 2021 through 2025 for animal control issues, such as rodent burrows and overgrown vegetation. While the animal control issues have remained fairly consistent throughout these years, the overgrown vegetation significantly worsened. As a result, this LMA was nearly two times greater than the <i>unacceptable</i> threshold in 2021 and more than 21 times the <i>unacceptable</i> threshold in 2025.

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LMA	LMA UNITS	LOCATION	LENGTH	FLOOD SOURCE	SYSTEM POSES HAZARDS TO	KEY DEFICIENCIES
Madera County FCWCA	Unit No. 01 Ash Slough RB	Madera County	26.32 miles	Ash Slough, Berenda Slough, Deep Slough, Mariposa Slough, Eastside Bypass, Fresno River	305 buildings 966 people \$137,000,000 property value 14,529 acres of farmland 5 endangered species 2 critical structures	Water Resources rated this LMA <i>unacceptable</i> in 2021 through 2025 primarily for animal control issues, such as rodent burrows, and overgrown vegetation. As of fall 2025, the LMA had improved much of its animal control issues. Water Resources first deemed this LMA <i>unacceptable</i> for overgrown vegetation in 2022. Although the LMA has improved its assessments since that time, as of 2025 its overall rating was still nearly four times more than the maximum threshold.
	Unit No. 02 Ash Slough LB					
	Unit No. 03 Berenda Slough RB					
	Unit No. 04 Berenda Slough LB					
	Unit No. 05 Fresno River RB					
	Unit No. 05 Fresno River LB					
Reclamation District No. 2104 Peters Pocket Tract	Unit No. 01 Cache Slough/ Unit No. 02 Haas Slough LB	Solano County	6.85 miles	Cache Slough and Haas Slough	4 buildings 9 people \$1,000,000 property value 89 acres of farmland 1 endangered species	Water Resources rated this LMA <i>unacceptable</i> in 2021 through 2023 for a mix of crown surface issues, including depressions and rutting, and overgrown vegetation. As of 2024, the LMA had resolved the crown surface issues and significantly lessened the overgrown vegetation, but Water Resources raised addition concerns about erosion from livestock. Despite significant improvement from nearly six times the <i>unacceptable</i> threshold in 2021, the LMA still rated slightly over the <i>unacceptable</i> threshold in 2025, primarily because of overgrown vegetation.

Source: Water Resources' levee inspection reports.

Appendix E

Scope and Methodology

State law authorizes the State Auditor to establish a program to audit and issue reports with recommendations to improve any state agency or statewide issue that we identify as being at high risk for the potential of waste, fraud, abuse, and mismanagement or as having major challenges associated with its economy, efficiency, or effectiveness. In December 2025, we issued our latest assessment of high-risk issues that the State and selected agencies face. Because we continue to identify water infrastructure as a high-risk issue for the State, we performed this audit to evaluate Water Resources' and the Board's efforts to reduce the risk of failure of dams and levees. We also evaluated what actions Cal OES has taken to ensure that dam owners complete EAPs that meet its requirements. Table E lists the objectives we developed and the methods we used to address them. Unless otherwise stated in the table or elsewhere in the report, statements and conclusions about items selected for review should not be projected to the population.

Table E
Audit Objectives and the Methods Used to Address Them

AUDIT OBJECTIVE		METHOD
1	Review and evaluate the laws, rules, and regulations significant to the audit objectives.	Reviewed and evaluated the laws, rules, and regulations significant to the audit objectives.
2	Evaluate whether Water Resources and the Board are fulfilling their state dam and levee oversight responsibilities as required, including: - Evaluating dam and levee performance. - Issuing condition and hazard ratings. - Taking enforcement actions when dam owners and LMAs do not take required actions.	- Interviewed staff and reviewed Water Resources' policies and procedures related to dam oversight. Determined whether Water Resources' policies and procedures align with applicable laws and federal criteria. - Interviewed staff and reviewed Water Resources' policies and procedures related to levee oversight. Determined whether Water Resources' policies and procedures align with applicable laws and federal criteria. - For a selection of 20 dams with <i>extremely high</i> and <i>high</i> hazard ratings, determined whether Water Resources adhered to its policies when it most recently evaluated the dams' performance and condition. - For a selection of 20 levees with various maintenance ratings, determined whether Water Resources adhered to its policies when it most recently inspected the levees. - For a selection of 10 dams of varying condition ratings, reviewed available documentation to determine the reasons for the condition ratings and the steps Water Resources took to notify owners and ensure that they addressed the deficiencies. We also determined whether Water Resources took appropriate enforcement action as needed against dam owners that failed to address deficiencies. - Interviewed managers at the Board and Water Resources and found that neither agency had policies to take enforcement actions when the LMAs do not adequately maintain their levees.

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AUDIT OBJECTIVE	METHOD
3 Identify and assess factors contributing to why dams and levees are not in adequate conditions. Review a selection of dams and levees in inadequate conditions to assess the reasons for their current state.	For six of the 10 dams reviewed for condition assessments in Objective 2, performed the following to determine reasons for any lack of action to address the deficiencies: • Reviewed available correspondence in Water Resources' files for each dam. • Interviewed appropriate Water Resources staff and reviewed available documentation to support their responses. • Interviewed dam owners or their representatives and reviewed available documentation to support their responses. • For five of the LMAs that managed the 20 levees that we reviewed in Objective 2, performed the following to determine reasons for their lack of action to address the deficiencies: • Interviewed Water Resources management. • Reviewed LMA inspection reports. • Interviewed LMA representatives.
4 To the extent feasible, assess the hazard to human life, local economy, and the environment that Water Resources, the Board, and Cal OES have determined is posed by state-managed dams and levees that are in inadequate conditions.	Obtained and summarized hazard rating data from Water Resources for dams and from the National Inventory of Levees for levees.
5 Assess Water Resources' and the Board's plans to ensure that on an ongoing basis all dams and levees are maintained in adequate conditions.	Interviewed Water Resources managers and the Board's chief engineer and collected planning documents from Water Resources and the Board to determine whether their plans to ensure that dams and levees are maintained.
6 Assess Cal OES's processes for reviewing and approving the emergency plans of dams and determine whether the plans are submitted, reviewed, and processed in a consistent manner that meets applicable requirements. a. Determine why Cal OES has not approved all emergency plans and assess Cal OES's efforts to ensure that all dams maintain approved emergency plans as required.	• Interviewed staff and reviewed Cal OES's policies and procedures for collecting, reviewing, and approving EAPs. Determined whether Cal OES's policies and procedures align with applicable laws and federal criteria. • Using a dam's hazard rating, condition assessment, and ownership type, selected 10 approved EAPs, 10 unapproved EAPs, and five dams that never submitted EAPs. • Performed tests to determine the completeness and accuracy of data to assess the reliability of Cal OES's database. • Examined supporting documentation to verify the accuracy and completeness of Cal OES's EAP reviews. • Interviewed Water Resources staff to identify its enforcement efforts related to EAPs.
7 Review and assess any other issues that are significant to the audit.	None identified.

Source: Audit workpapers.

Assessment of Data Reliability

The U.S. Government Accountability Office, whose standards we are statutorily obligated to follow, requires us to assess the sufficiency and appropriateness of the computer-processed information we use to support our findings, conclusions, or recommendations. In performing this audit, we relied on electronic data files that we obtained from Water Resources, Cal OES, the Board, and the Army Corps. Specifically, we used the data from these sources to create a map depicting where dams are located throughout the State and the inundation area of a dam in the Bay Area. We also used these data to select the dams and levees that we reviewed, to determine the numbers of dams and levees not adequately maintained, to

approximate the hazard posed by dams and levees, to determine the number of owners of dams that do not have approved EAPs and whether Cal OES had reviewed submitted EAPs, and to determine the number of LMAs participating in the Public Law 84-99 program. Based on our review of the data and discussions with Water Resources and Cal OES, we determined that their data sets were sufficiently reliable. However, we did not review the accuracy of the Army Corps or the Board's data sets, or specifically Water Resources' hazard data. Although we recognize that there may be limitations that affect the precision of the data we present, our findings and conclusions are not dependent on those data, there is sufficient evidence in total to support our audit findings, conclusions, and recommendations.

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STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

GAVIN NEWSOM, GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD

3310 El Camino Ave., Ste. 170
SACRAMENTO, CA 95821
(916) 574-0609



September 22, 2026

Grant Parks
California State Auditor
621 Capitol Mall, Suite 1200
Sacramento, CA 95814

Dear Auditor Grant Parks,

The Central Valley Flood Protection Board (Board) acknowledges receipt of the California State Auditor's redacted draft State High-Risk Program Report 2025-603 (redacted draft report) and agrees with the Auditor's recommendations.

The Board appreciates the report's acknowledgment of the Board's efforts to work with the local maintaining agencies within the Central Valley that operate and maintain State Plan of Flood Control facilities, to gain or regain eligibility in the U.S. Army Corps of Engineers Public Law 84-99 Rehabilitation Program (PL 84-99). Through this program, maintaining agencies are required to develop a plan to reduce deficiencies over time within their respective boundaries. The program also provides federally funded rehabilitation for damages that occur from a federally declared flood emergency, if the local maintaining agency is eligible in the program.

The Board agrees with the report's recommendations that to improve the Board's capability to address unpermitted encroachments on levees, the Board should seek statutory changes and additional resources to address unpermitted encroachments that require the Board's enforcement actions. The findings in the report provide further support that additional State resources are necessary to reduce high risk, unpermitted encroachments and unauthorized work that affect State Plan of Flood Control facilities. Unauthorized activities pose a significant flood threat to lives and property within the Central Valley due to the possibility of damage or ultimate failure of flood risk reduction infrastructure. Although PL 84-99 eligible districts account for 93% of the population protected by federal levees, many smaller rural districts remain ineligible.

The Central Valley Flood Protection Plan has noted a need for increased resources in this area from both state and local sources. These additional resources are needed to keep the existing system operating as intended, even as system improvements are pursued to further reduce the risk of catastrophic flooding. Further, the Board has developed multiple tools that streamline application and enforcement processing, including an online permit application portal available to the public, and an internal viewer that displays all permit applications and issued permits as well as active enforcement cases. These tools were developed within the Board's limited

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Auditor Grant Parks
September 22, 2026
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budget and reflect its continued efforts to develop and implement efficiencies that support the Board's permitting and enforcement programs and overall mission.

Thank you again for the opportunity to comment on the redacted draft report.

Sincerely,



Brian Johnson
Board Secretary

On behalf of the Central Valley Flood Protection Board

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STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

GAVIN NEWSOM, Governor

DEPARTMENT OF WATER RESOURCES

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



September 18, 2026

VIA EMAIL to seanm@auditor.ca.gov

Mr. Grant Parks*
California State Auditor
621 Capitol Mall, Suite 1200
Sacramento, California 95814

Subject: Response to 2025-603—State High-Risk Audit regarding the State's
Water Infrastructure

Dear Mr. Parks:

The California Department of Water Resources (DWR) appreciates the opportunity to respond to the draft audit report (Report 2025-603) for the State High Risk Program dated October 13, 2026. While we appreciate the hard work of California State Auditor staff, overall, the draft audit report portrays a fundamental lack of understanding of the complexities of flood management in California's Central Valley and dam safety statewide, leading to recommendations that will not effectively advance statewide public safety. Our response below seeks to clarify inaccurate or incomplete findings and correct misstatements in the draft audit report. ①

SPFC Levees and Flood Risk Management

The audit acknowledges that the Central Valley Flood Protection Plan (CVFPP) provides a systemwide approach for reducing flood risk associated with State Plan of Flood Control (SPFC) facilities. However, the draft report does not fully consider the breadth of risk management strategies articulated in the CVFPP or the way DWR, the Central Valley Flood Protection Board (CVFPB), and local maintaining agencies (LMAs) implement those strategies. As a result, the audit's characterization of levee risk in the Central Valley is incomplete and inconsistent with the CVFPP's risk-based framework. The CVFPP uses a risk-based framework to prioritize actions to the areas of highest risk to provide as much safety benefit as possible for the public. The audit inappropriately focuses on levee maintenance which is only a component of overall risk reduction actions. ②

DWR and the CVFPB share responsibility for approximately 1,600 miles of SPFC levees, weirs, bypasses, and related flood management infrastructure. Under the Central Valley Flood Protection Act of 2008, the CVFPP—updated every five years—serves as the State's strategic blueprint for reducing flood risk in both the Sacramento and San Joaquin Valleys. The CVFPP relies on a diversified portfolio of structural and nonstructural actions, including improvements to levees, flood control reservoir operations, operations and maintenance (O&M), emergency response, and floodplain management. State law also requires the CVFPP to prioritize recommended actions based on their contribution to overall flood risk reduction. Conversely, the draft audit narrowly focuses on maintenance as the overall determinate of flood risk. While adequate maintenance is important as discussed in the CVFPP, it is not the ultimate determinate of risk to lives and property. ②

* California State Auditor's comments begin on page 73.

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Narrow Focus on Levee Maintenance

- ② Although the audit references the CVFPP, it does not meaningfully incorporate the plan's risk-based approach when evaluating levee conditions. Instead, the report relies almost exclusively on maintenance inspection results and assumes a direct, uniform correlation between maintenance deficiencies and flood risk. This approach overlooks several critical factors:
- Risk varies across the system. The consequences of levee failure differ significantly depending on what is protected—urban areas, rural agricultural lands, or small communities. The audit treats all levee segments as equally consequential, which is inconsistent with the CVFPP's risk-based prioritization.
 - Maintenance is one component of risk, not the sole driver. Flood risk is a function of hazard (e.g., atmospheric rivers, snowmelt, runoff), facility performance, and consequences of failure. Maintenance contributes to performance, but it is not the only or always the most effective action for reducing risk.
 - DWR invests in a portfolio of actions. DWR conveyed to the auditors that maintenance deficiencies—particularly in rural areas—are addressed through multiple strategies beyond maintenance area (MA) formation, including targeted repairs, improved access for high water response, supplemental maintenance funding, development of maintenance improvement plans, and grants to enhance emergency response capabilities. The auditor's focus on maintenance excludes the portfolio of actions that are most effective at reducing flood risk.

The audit also mischaracterizes the importance DWR places on maintenance. The CVFPP makes it clear that improved operations and maintenance of levees throughout the SPFC system is a high priority for DWR. The CVFPP's investment portfolio has resulted in the development and implementation of several new programs to improve O&M by addressing the highest-risk deficiencies in partnership with the responsible maintaining agencies. The audit acknowledges these programs but claims DWR does not think improved maintenance is important enough.

Ultimately, the audit's narrow focus on maintenance and MA formation simply does not reflect how risk is managed across the SPFC system to most effectively protect life and property.

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Inaccurate Findings on Levee Risk

The narrative presented in the draft report does not acknowledge DWR's commitment to improved operations and maintenance and states that DWR is reluctant to use its authority to form maintenance areas (MAs). This portrayal is inaccurate. (2) (3)

The report makes several unsubstantiated assertions including that DWR does not consider unacceptable maintenance a significant risk, DWR does not have policies or processes that require LMAs to improve levee maintenance, and that DWR reluctance to form MAs increases flood risk. (4) (5)

DWR's commitment to maintenance is well documented. The CVFPP is DWR's comprehensive plan for addressing flood risk in the Central Valley, and it explicitly incorporates maintenance as a key element. Our process to ensure LMAs perform required maintenance in accordance with assurance agreements has multiple components. We conduct maintenance inspections of all SPFC levees twice a year and report maintenance deficiencies to the CVFPB and the LMAs. Additionally, we have provided over \$400 million to support local maintenance activities through multiple funding programs. In our inspections, we highlight priority items that will improve LMA levee maintenance ratings and encourage LMAs to address the higher-risk factors first in our threat assessment and recommendation section of the annual report. We also provide technical support to any levee system operator on request. (4)

DWR is not opposed to forming MAs when doing so is in the public interest; DWR currently operates ten MAs in the Central Valley. However, MA formation carries substantial upfront costs—often tens of millions of dollars—that must be weighed against other investments that may yield greater risk-reduction benefits. DWR must prioritize limited resources to maximize overall flood risk reduction, which does not always result in MA formation. The assertion that DWR's reluctance to form MAs increases flood risk is wrong. The CVFPP clearly articulates DWR's risk-based approach to prioritize investments to reduce flood risk. MA formation is a tool DWR uses, when and where appropriate, but it is not a focus of the risk prioritization approach DWR developed. (6) (5) (6)

Dam Safety

DWR's dam safety program regulates a wide range of non-federal dams and over 600 dam owners in a geographically complex and seismically active state. The draft audit report inadequately represents California's dam safety program in numerous aspects. Dam safety is a highly complex technical field that requires specialized expertise in engineering and science. This is why DWR has availed itself of the Association of Dam Safety Officials' (ASDSO) Peer Review Program. At DWR's request, ASDSO assessed California's dam safety program and found it to be the leading state dam safety program in the nation.

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- ⑦ While the draft report expresses concerns regarding risk and public safety, it does not fully appreciate the reevaluation program DWR established in 2018 following the Oroville spillways incident. This reevaluation program is critical to ensuring dam safety. The objective of the reevaluation program is to periodically review all dams that pose a hazard to life (high and extremely-high hazard) against current dam safety standards. For each dam, the process starts with a risk assessment in line with federal guidelines that consider the following: (1) identification of multiple scenarios of how a dam could fail, (2) the likelihood of each scenario occurring, and (3) the consequence (probable life loss) associated with each scenario. The results are measured against industry standards for acceptable risk. If the risk is higher than this standard, DWR conducts a focused reevaluation consisting of technical engineering analyses to determine if the dam is deficient. If deficiencies are identified, DWR changes the condition assessment to a rating less than satisfactory (Unsatisfactory, Poor, or Fair) in accordance with federal guidelines. It should be noted that the condition assessment rating does not consider potential life loss (consequence) and minimally reflects the likelihood of failure. Thus, DSOD uses its risk assessments and engineering analyses to refine the likelihood and consequence of failure and assess the need for risk-reduction measures, such as reservoir restrictions. DWR may adjust these risk-reduction measures (further restrictions, additional monitoring, emergency planning) if warranted.
- ⑧ A dam identified as deficient through the reevaluation program does not indicate the dam is degraded or poorly maintained; rather, it indicates that dam safety standards and external hazards such as earthquakes and floods have changed since the dam was built. Dam owners are not in violation of the California Water Code in such circumstances.

Narrow focus on Inspections and Enforcement

- ⑦ A major simplification contained in the draft audit report is the heavy focus on field inspections and enforcement with limited to no acknowledgment of the breadth of the dam safety program. DWR's reevaluation program is responsible for identifying over two-thirds of dam deficiencies, which the report notes. Without adequate appreciation of DWR's reevaluation program (risk assessments and technical analyses described above), the draft report limits itself to condition assessments (Unsatisfactory to Satisfactory) as the only indicator of the chance of failure. Additionally, while the report acknowledges that restrictions are taken, it fails to appreciate how much a restriction can reduce risk, often significantly reducing or eliminating the potential loss of life.
- ⑦
- ⑨

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The draft audit report acknowledges the significant hazards dams can pose to Californians, which is why DWR's dam safety program takes a multipronged approach to minimize risks to people and property. The dam safety program uses geological evaluations, engineering analyses, and complex design reviews to guide its actions. Condition assessments, which again indicate deficiencies, are a simple and limited tool used by State and federal agencies to screen dams for their financial assistance programs, and it is recognized that further information is needed to properly prioritize assistance.

A. Inspections

The audit's focus on inspections leads to the potential misinterpretation that poor maintenance and a lack of action are the only reasons dams may be in less-than-satisfactory condition. For instance, the draft report provides examples and photos of visible issues with dams, such as concrete cracking, that exacerbate this skewed focus. This further demonstrates the lack of technical understanding that the most critical deficiencies are found through DWR's reevaluation program; these are not visible in an inspection and most often occur because design loads (earthquakes and floods) are larger than original expected. Design standards, engineering methods, and science have changed over time. These dams were not necessarily built poorly. ⑦

The draft audit report draws attention to the increasing number of dams in less-than-satisfactory condition and the length of time to address deficiencies. DWR's inspections and its reevaluation program can identify dams that have deficiencies (and associated downgrade in condition assessment) relatively quickly. As the draft report notes, it can take decades to repair these deficiencies, which results in a net increase in the number of dams with a less-than-satisfactory condition assessment. This does not mean dam safety is not being addressed. Approximately 5 to 10 dams each year are being repaired and returned to satisfactory condition, and a vast majority of all deficient dams are at some stage of addressing their deficiencies. Because the auditors focused on a small subset of dams over a short period of time, the draft report did not recognize all components contributing to the increase in the number of deficient dams. ⑩

The draft report implies that if an owner lacks funds, they are not taking action. Numerous recent projects have not had funding barriers, yet they still took decades to construct. Most owners advance plans and designs despite funding and permitting issues because it can help achieve some of the limited financial assistance that exists for dam safety. Dam projects are complex and design development, ensuring constructability, and project quality cannot be rushed. It is also critical that projects do not add risk when dams and dam reservoirs need to remain in service during construction to provide water supply or flood control. ⑪

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Funding, however, is the biggest issue owners face both in California and across the country. The draft report correctly notes that DWR has estimated that over \$28 billion is needed to fix California's dams over the next five years. When projects cost more than \$100 million, these repairs can exceed the annual budget of all but a few dam owners. These constraints are not a result of poor prioritization or negligence. Laws, statutes, and revenue sources often limit the ability of owners to raise funds, and doing so can have unreasonable impacts on local communities.

B. Enforcement

- ⑫ Lacking funds and less-than-satisfactory condition assessments are not a violation of the California Water Code (Water Code), and broad enforcement based on limited funding will not be successful unless owners are in violation of the Water Code. Based on the number of dams in less-than-satisfactory condition, the audit should consider whether the number truly shows noncompliance and whether enforcement is really a
- ⑬ solution to a much bigger problem for which the auditors pose no solution. Dam owners want funding for their projects, but funding of the scale necessary is difficult to obtain, and enforcement will not change that.

- ⑭ Ninety-five percent of dam owners are taking action to address their deficiencies by restricting reservoirs, initiating planning for fixes, and filing permits for long-term projects. The remaining 5% may warrant enforcement as violations are identified, and DWR does take action.

FEMA's model state dam safety program notes that enforcement should be a last resort for compliance because it can lead to excessive costs and delays in addressing dam safety concerns. The consequences of these actions must be considered by the regulator including the time and cost associated with such legal actions.

DWR will continue to evolve its enforcement program, and it will take enforcement action against those owners that do not act on dam safety issues that are clearly in violation of the Water Code. DWR will also continue to require risk-mitigation measures, such as adjusting restrictions, for projects that are delayed.

DWR will continue its reevaluation program for its inventory of high and extremely high hazard dams (those posing a risk of life loss) to identify deficiencies. The biggest risk to Californians is not the dams with known deficiencies but rather the dams that may be deficient that are currently unknown. DWR needs to identify all deficient dams as quickly as reasonably possible to ensure their condition assessment rating is correct, but to also understand any likelihood of failure and potential actions or risk-reduction measures that must be taken.

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Finally, DWR will update its 2016 peer review by seeking a new review by ASDSO to further assess its program. This will provide a technical review of and guidance to the DWR dam safety program regarding the recommendations presented here and other aspects of the dam safety program that have not been discussed in this audit. This review would also provide feedback on legislative needs and actions that could be used to guide statutory changes, rulemaking, and outreach on a State and federal level.

Response to Audit Recommendations

Levees: The auditor recommends that DWR:

- *To alleviate delays and project costs related to both dams and levees, Water should identify all impediments, including environmental permitting, that could cause delays or exceptional costs in completing dam and levee repair work or in decommissioning a dam by March 2027 and develop a plan by August 2027 to work with appropriate parties, including the Legislature, to minimize those impacts.*

This recommendation is outside of DWR's authority and control. While DWR can identify the impediments, we cannot implement a plan that is related to modifying other agencies' authorities and would require action by the Legislature.

(15)

- *To ensure that levees are maintained properly and to comply with state law, Water Resources should immediately initiate the process to form a maintenance area when it determines LMAs do not meet their federal requirements.*

Forming maintenance areas for all LMAs that have unacceptable maintenance ratings is a deviation from the CVFPP's risk-based approach to flood management, which prioritizes actions to address the highest risks first, and would result in inefficient use of State resources. Numerous LMAs with unacceptable ratings are either actively seeking federal deauthorization because the land behind them has been converted to riparian habitat, solely protects private property, or an LMA-lead effort to transition maintenance to the State is already underway. In these cases, using the Department's authority to form an MA would not best serve the public interest, nor would it reduce overall flood risk to lands protected by SPFC facilities.

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- *To improve its ability to address high-risk sites on levees, by January 2027 Water Resources should annually identify the sites that require repair in the next year and seek the funding needed to allow it to address all the critical and serious sites that it identifies on project levees.*

DWR inspects and identifies needed repairs throughout the SPFC twice annually. We continually seek funding to address these repairs through the State's deferred maintenance funding sources.

Dam Safety: The auditor recommends that DWR:

To ensure that it exercises its full enforcement authority over the safety of dams, Water Resources should develop processes by January 2027 to do the following:

- *Issue a Notice of Violation to dam owners that have not met Water Resources' orders to address their dams' deficiencies within a reasonable period, including when dam owners miss key repair project milestones because of their lack of resources.*
- *Issue an Administrative Complaint to each dam owner that does not take corrective action according to the Notice of Violation.*
- *Ensure that it has allocated sufficient funding to cover the costs associated with these enforcement actions.*

⑧ The recommendation simplifies issues surrounding deficiencies by equating those to Water Code violations. Condition assessments and funding are not violations of the Water Code. The speed at which dam owners address large scale deficiencies should not constitute a violation of the Water Code provided owners are making progress, despite challenges. DWR's current enforcement processes consider reasonable progress and milestones, which are used to determine when cases are referred for enforcement. However, enforcement cannot be a rigid process because every owner, dam, and potential violations vary in complexity. Enforcement at this scale also neglects the legal complexity and resources DWR would need. Due process requires that the enforcement branch act independently of the remaining dam safety program, and case development heavily relies on the whole program. This would detract from the dam safety program meeting all its statutory requirements. As the program is solely funded by dam owners, it needs to consider the impact reallocations might have on dam owners. Enforcement actions, while warranted in certain cases, will add costs to owners that will delay compliance and have minimal impact on improving the overarching funding issues.

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Additionally, the specified focused on administrative complaints oversimplifies the process by narrowing the actions to enforcement regulations allow DWR to achieve compliance. There are multiple actions DWR can take, and other strategies have successfully reached compliance. The ultimate objective of DWR is to mitigate deficiencies efficiently, and administrative complaints are an intense legal process that are not always effective and timely in addressing dam safety concerns. (16)

To ensure that it has sufficient financial resources to support its enforcement of dam safety, Water Resources should immediately seek approval from the Department of Finance to charge dam owners fees sufficient to support that work.

- DWR acknowledges the recommendation to immediately seek additional financing to support enforcement. However, as DWR noted during audit discussions, it cannot immediately seek resources until it has enforcement cases that warrant the enforcement actions available to it and understands the time and cost associated with those actions. Considering the uncertainty of how many cases exist, DWR may never know how much funding it needs. (17)
- In addition, it is the Legislature that would need to provide authority for DWR to charge dam owners fees for enforcement.

To ensure that all owners of dams submit required EAPs, when Cal OES notifies Water Resources of delinquent owners—including those dam owners that do not meet new deadlines that the Legislature establishes—Water Resources should immediately take appropriate enforcement action against those owners for failing to submit or resubmit required EAPs timely.

- Enforcement for Emergency Action Plans (EAPs) are complicated, as FEMA presents its guidelines as recommendations rather than requirements. This lack of clear EAP content guidelines creates a risk that enforcement actions would be based on unclear and vague requirements that could invite litigation. Regulations identifying specific criteria for completion of EAPs in Cal OES' program would be necessary to ensure successful enforcement of EAPs by DWR. Regulations could also address timelines and dates.

To alleviate delays and increased project costs related to both dams and levees, by March 2027 Water Resources should identify all impediments, including environmental permitting, that could cause delays or excessive costs in completing dam and levee repair work or in decommissioning a dam and develop a plan by August 2027 to work with appropriate parties, including the Legislature, to minimize those impacts.

- This recommendation is outside of DWR's authority and control. While DWR can identify the impediments, we cannot implement a plan that is related to modifying other agencies' authorities; that would require action by the Legislature. (15)

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⑱ ***Requested Technical Corrections to Audit Report***

Levees

- ⑲
- Page 7: DWR did not establish "repair programs and systemwide efforts" to "help mitigate the lack of maintenance". DWR established repair programs and systemwide efforts to address the highest flooding risk factors based on the State's systemwide approach to reduce overall flood risk as described in the CVFPP. As articulated in the CVFPP, DWR has identified improved operations and maintenance as a high priority. Please delete "to help mitigate the lack of maintenance" phrase.
 - Page 45: This page inaccurately implies that all vegetation and rodent burrows either cause structural problems or prevent engineers from identifying problems. Not all vegetation deficiencies cause structural deficiencies in levees. There is a threshold when vegetation or rodent burrows begin to cause structural deficiencies, and the rating depends on the degree of these factors. The word "either" should be changed to "may" in first bullet of second sentence. Page 48, second sentence, requires the same modification as Page 45.
 - Page 56: Under FMAP heading, first sentence states that "Although Water Resources does not believe that LMAs unacceptable maintenance ratings signify a risk that must be systematically addressed..." This is incorrect. DWR does systematically address levee maintenance needs. In fact, the CVFPP specifically calls out the need to do so. But the CVFPP does not recommend MA formation across the board. We do think unacceptable maintenance *could* signify a risk that should be addressed, which is why we have several maintenance-focused programs the audit report then goes on to discuss. Please delete sentence.
 - Page 54: last sentence "...the Department does not consider unacceptable maintenance ratings as a sign of increased risk." Please replace "a" with "the only". DWR views unacceptable maintenance as a risk factor, but not the sole determinate of flood risk.
 - Page 80: The consequence data displayed in Table C is taken from the National Levee Database. This data aggregates information across a system of levees that can contain multiple LMA boundaries and associates any LMA that intersects with the system to the total consequence data. Using this approach could overestimate risk for an individual LMA within a larger system. A different dataset or a more detailed analysis would be needed to corollate consequence data to a specific LMA.

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Dam Safety

- Page 35, 36: DSOD's enforcement branch does not reject referrals that go to enforcement (text and figure). If necessary, cases are returned for further development. In some cases, referrals for enforcement have been returned or completed because an owner has mitigated their violation. In one case, an owner decommissioned their dam, removing it from jurisdiction.
- Page 37: It is implied that Water Resources incorrectly prioritized the development of Enforcement Regulations. The legislation that provided Water Resources with new enforcement authorities also required the development of Inundation Map Regulations and Annual Fee Regulations and deemed their development as an emergency whereas enforcement was not deemed as such. Thus, the development of the regulation packages deemed that an emergency in statute had to be promulgated first. Additionally, Water Resources lacked the resources to promulgate multiple regulation packages simultaneously and the development of Enforcement Regulations required extensive legal research.
- Page 39: DWR requests clarity and adjustment to the statements that it would not take enforcement action on owners that cannot afford work if they are providing progress updates. Reality is much more complex. DWR is currently developing cases against owners that have claimed financial hardship yet remained in violation of the Water Code. This statement may suggest to owners that financial hardship can be used as a reason to not act on their deficiencies.
- Page 40: "When an owner is noncompliant, DWR does not have authority to take meaningful action to minimize the risk that an *extremely high* or *high* hazard dam poses to public safety before the dam poses emergency-level danger." DWR considers this a false statement, as Section 6429 of the Water Code states that the department may impose a reservoir restriction on an owner of a dam who fails to comply with any of the provisions of this part or any approval, order, rule, regulation, or requirement of the department. This contradicts the acknowledgment elsewhere in the report that DWR has ordered reservoir restrictions as risk-reduction measures when dam deficiencies have been identified, prior to initiating enforcement actions.
- Page 43: Showing the dam names for the two newer dams without EAPs is a potential security threat. Please delete.

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If you have any questions or need additional information, please feel free to reach out to me or Deputy Director Laura Hollender at (916) 820-8125, or Laura.Hollender@water.ca.gov.

Sincerely,

Tom Gibson
Tom Gibson
Director

CALIFORNIA STATE AUDITOR'S COMMENTS ON THE RESPONSE FROM THE DEPARTMENT OF WATER RESOURCES

To provide clarity and perspective, we are commenting on the response to our audit report from Water Resources. The numbers below correspond with the numbers we have placed in the margin of the response.

We disagree with Water Resources' statement that the report portrays a fundamental lack of understanding of the complexities of flood management and dam safety. We conducted this audit according to generally accepted government auditing standards and the California State Auditor's thorough quality control process. In following audit standards, we are required to obtain sufficient and appropriate audit evidence to support our conclusions and recommendations. As is our standard practice, we engaged in extensive research and analysis for this audit to ensure that we could present a thorough and accurate representation of the facts. Finally, we believe that our recommendations, if fully implemented, will effectively advance statewide public safety. Accordingly, we stand by the conclusions in our report.

①

Water Resources incorrectly asserts that our draft report does not adequately consider the risk management strategies articulated in the Central Valley Flood Protection Plan. In addition, we disagree with Water Resources' belief that our report inappropriately focuses too narrowly on levee maintenance when considering the department's overall risk reduction actions. We discuss on pages 36 through 38 some of the risk management strategies that Water Resources has employed and the progress that those strategies have had in resolving the risks attributable to LMAs' lack of maintenance. However, as we state on page 37, Water Resources has a backlog of levee sites needing repair, and has exhausted one of its funding sources for that work. Moreover, despite its efforts, maintenance ratings for many LMAs have not improved. As we state on page 30, Water Resources rated 32 of the 102 LMAs as *unacceptable* during its fall 2025 inspections. In fact, Water Resources has rated 23 of these 32 LMAs as *unacceptable* for at least the last five years. As we state on page 30, we found that the LMAs we reviewed received *unacceptable* ratings largely because of vegetation management and animal control deficiencies. Furthermore, we state on page 31 that some of the deficiencies, like animal burrows and erosion sites, can have a direct impact on the structural integrity of levees. As such, we stand by our conclusion that maintenance of levees is important because it reduces the likelihood that they will fail and cause flooding that would damage property and endanger lives.

②

We stand by our conclusion that Water Resources is reluctant to form maintenance areas. Water Resources has disregarded state law that requires it to start its process to form a maintenance area when it determines that LMAs are not meeting federal requirements. As Table 3 on page 31 shows, Water Resources has allowed 23 LMAs to perform maintenance at an *unacceptable* level for at least the last five years. Moreover, although not referenced in the report, according to its data, Water Resources has rated nine of those LMAs as *unacceptable* for at least 19 years and another 10 for at least 10 years. Six of the nine LMAs that have performed *unacceptable* maintenance for at least 19 years could endanger hundreds or thousands of people. Despite the consistent lack of maintenance by some LMAs, as we state on page 35, Water Resources has not formed a maintenance area to ensure that project levees are maintained in *acceptable* condition.

③

- ④ We disagree with Water Resources' claim that our report makes unsubstantiated assertions. As page 33 states, Water Resources' management told us that the department does not have policies or a process that require an LMA to improve its levee maintenance to address identified deficiencies. Further, we do not state in the report that Water Resources does not consider *unacceptable* maintenance a significant risk. It is puzzling that Water Resources implies in its response on page 63 that it considers *unacceptable* maintenance a significant risk while also stating on page 62 that our audit too narrowly focused on levee maintenance.
- ⑤ We stand by our determination that Water Resources' reluctance to form maintenance areas increases flood risk. As we state on page 35, Water Resources' management acknowledged that *unacceptable* levee maintenance increases the chance that a levee may fail. When an LMA does not maintain its levees and Water Resources does not intervene by forming a maintenance area, Water Resources enables the LMA's levees' conditions to worsen, which further increases the risk that levees could fail and flood surrounding communities.
- ⑥ Water Resources' statement is misleading. As we state on page 35, Water Resources has not formed a maintenance area to ensure that project levees are maintained in *acceptable* condition, meaning that it has not proactively initiated the formation of a maintenance area because of an LMA's lack of maintenance. On the contrary, the maintenance areas cited in its response that Water Resources currently operates were required by state law or requested by LMAs.
- ⑦ We disagree with Water Resources' characterization of our audit report's focus on inspections and its concern regarding our lack of appreciation of its reevaluation program. We state on page 6 that Water Resources identifies deficiencies as part of its reevaluation program, which assesses whether its riskiest dams meet current operating standards. In fact, Water Resources acknowledges in its response on page 64 that our report notes that its reevaluation program is responsible for identifying over two-thirds of dam deficiencies. Moreover, Water Resources also identifies on that same page that it changes the condition assessment of a dam based on the reevaluation program. The condition ratings we reviewed that Table 1 on page 15 summarizes reflect changes based on reevaluations that Water Resources conducted for dams as of May 2026. In addition, we identify on page 15 that Water Resources' management stated that approximately 60 to 70 percent of the deficiencies that Water Resources engineers have found among the 144 dams with less than *satisfactory* condition assessments are related to not meeting design standards.
- ⑧ Water Resources appears to misunderstand our recommendation. Our recommendation directs Water Resources to take enforcement action against dam owners that have not met its orders to address their dams' deficiencies, which is a violation of state law. Further, our recommendation does not direct Water Resources to take a rigid approach to enforcement, but rather that it should take enforcement action when a dam owner does not address Water Resources' orders within a reasonable period of time. However, we expect Water Resources to exercise its discretion in determining whether dam owners have addressed its orders within a reasonable period of time.

Water Resources' perspective is unfounded. We state on page 18 that Water Resources may impose a reservoir restriction on a dam to reduce the risks posed by the dam's deficiencies while the dam owner undergoes the planning process to address the deficiencies. We further state that Water Resources has active restrictions on 49 dams as of September 2025, including a restriction on three of the dams that we reviewed. In addition, we indicate on page 20 that Water Resources may issue a reservoir restriction as part of its enforcement actions.

⑨

We stand by our audit methodology and believe that our selection of dams for review provided us with a thorough perspective in conducting our audit. As we describe starting on page 15, we reviewed six dams, including four dams that Water Resources had assessed as *poor*, one in *unsatisfactory* condition, and one in *fair* condition, to better understand their specific circumstances for their identified deficiencies. These dams were all classified as *extremely high* hazard, are used for different purposes, and are of varying ages. In addition, Water Resources' engineers have identified multiple deficiencies at each dam we selected. Further, although we did not review all 144 dams in less than *satisfactory* condition, we include on page 15 Water Resources' perspective that approximately 60 to 70 percent of the deficiencies that Water Resources engineers have found among those dams are related to not meeting design standards.

⑩

Although we recognize that a lack of funds can be a key barrier that causes dam owners to delay their dam repair projects, our report does not imply that dam owners that lack funding are not taking any action. As we state on page 18, Water Resources' management informed us that dam repair projects are often delayed by dam owners because they cannot afford the cost of repairs. In fact, Water Resources acknowledges in its response on page 66, that funding is the biggest issue owners face in addressing deficiencies. Further, as we state on page 18, the owners of five of the six dams we reviewed explained that they ultimately did not know how they would fund their repairs.

⑪

We disagree with Water Resources' implication that we concluded that lacking funds and owning a dam in less than *satisfactory* condition is a violation of state law. We state on page 20 that Water Resources may take administrative enforcement action against dam owners that disregard its requirements to take corrective action. Consequently, our conclusion is that dam owners that disregard Water Resources' requirements, including those related to remediating their dams' deficiencies, are in violation of state law.

⑫

Water Resources' response appears to undermine its ability to take appropriate enforcement action. In particular, we disagree with Water Resources that our audit does not pose a solution to the problem that dam owners may not be able to afford to repair their dams. To prevent additional dam owners from reaching this condition, our recommendations starting on page 39 are specifically focused on ensuring that dam owners maintain adequate plans and funds to maintain their dams. We further recommend that the Legislature provide Water Resources with the authority to use its existing enforcement means to take actions against dam owners that do not develop sufficient plans for maintenance and repairs of their dams on time or that do not maintain adequate emergency funds. To address dam owners that currently cannot afford to adequately maintain their dams, we recommend Water Resources

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identify impediments that could cause delays or excessive costs in completing dam repair work and work with appropriate parties, including the Legislature, to minimize those impacts and reduce the burden on dam owners. Further, we recommend that Water Resources hold dam owners accountable to repair and improve their dams within reasonable timelines, or—to the extent the Legislature implements our recommendation that it provide Water Resources with additional authority—Water Resources should condemn the dam, order the owner to decommission the dam, or decommission the dam on the owner’s behalf if the owner abandons the dam.

- ⑭ Water Resources’ statement that it takes action against dam owners that warrant enforcement is not entirely accurate. We state on pages 20 and 21 that Water Resources has not taken action against the owners of 20 dams that its engineers have referred for enforcement to ensure that they addressed their violations. As we state on page 22, according to its management, Water Resources has not taken compelling enforcement actions against dam owners since it finalized its regulations because it has not been able to staff its enforcement branch, and it believed that it could not afford to defend its actions in administrative hearings if dam owners challenged them.
- ⑮ We are puzzled by Water Resources’ response to our recommendation. Water Resources is ideally positioned to identify the specific obstacles that must be overcome to ensure that the State’s levees and dams are adequately maintained. Our recommendation is for Water Resources to work with relevant parties, including the Legislature, to address all impediments it identifies, which we believe is within the department’s authority and control.
- ⑯ Water Resources mischaracterizes our recommendation by stating that it narrows the department’s actions to only Administrative Complaints to achieve compliance. Our recommendation on page 40 aligns with Water Resources’ enforcement regulations that state that Water Resources may issue dam owners an Administrative Complaint when they do not take corrective action in response to Water Resources’ Notices of Violation. We would expect Water Resources to use its other actions and strategies as needed while still adhering to its regulations.
- ⑰ Water Resources incorrectly states that it does not have enforcement cases that warrant enforcement actions. As we describe on pages 20 and 21, Water Resources has not taken action against the owners of 20 dams that its engineers have referred for enforcement to ensure that they addressed their violations. Further, as we note on page 23, Water Resources stated during our audit that it would have pursued an administrative complaint against a few noncompliant dam owners had it requested and obtained sufficient funding for the associated legal costs.
- ⑱ Water Resources’ inclusion of suggested wording changes in its response to the audit is surprising. As we do for all audits, we provided Water Resources a five-day period to review and comment on a draft copy of the report, and we asked it to contact us if it had any concerns with the text. However, even though we met with the department’s management during its review period specifically to discuss such matters, Water Resources failed to share with us its concerns on the draft report text. Nevertheless, we carefully considered Water Resources’ comments

and suggested text changes, and we made changes that we believed were warranted based on the evidence we obtained during the audit and the additional perspective Water Resources provided in its response.

During the publication process for the audit report, page numbers shifted. Therefore, the page numbers cited by Water Resources in its response may not correspond to the page numbers in the final published audit report.

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GAVIN NEWSOM
GOVERNOR



CAROLINE THOMAS JACOBS
DIRECTOR

September 18, 2026

Grant Parks
California State Auditor
621 Capitol Mall, Suite 1200
Sacramento, CA 95814

Subject: 2025-603 State High Risk: Water Infrastructure

Dear Grant Parks:

The California Governor's Office of Emergency Services (Cal OES) received the California State Auditor's (CSA) High Risk Audit 2025-603 redacted Draft Report on September 14, 2026, via email. Cal OES appreciates the opportunity to respond and provide its corrective action plan to CSA's High Risk Audit recommendation.

The CSA's finding states: "...The owners of 60 high-risk dams have not complied with state law that requires them to create and submit to the...Cal OES emergency action plans (EAPs)... some dam owners who did submit plans have not been responsive to Cal OES's request for revisions... Cal OES has not coordinated with Water Resources [Department of Water Resources (DWR)] to ensure that they do so..."

The CSA recommends: "...To ensure that all owners of dams submit and resubmit required EAPs, Cal OES should immediately report to Water Resources [DWR] those dam owners who are delinquent in submitting or resubmitting their EAPs, including those dam owners that do not meet new deadlines that the Legislature establishes, so that Water Resources [DWR] can take the appropriate enforcement action against those owners. Further, it should establish a process to report such information to Water Resources on a quarterly basis."



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Grant Parks
September 18, 2026
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Cal OES corrective action: Cal OES agrees with CSA's recommendation. DWR is responsible for implementing California's Dam Safety Program pursuant to Division 3, Part 1 of the California Water Code. Also, consistent with Title 23 of the California Code of Regulations, section 337, DWR is responsible for enforcement actions over dam owners in coordination with Cal OES. Accordingly, Cal OES will coordinate with DWR's Division of Safety of Dams (DSOD) to pursue appropriate enforcement action against dam owners who have never submitted the required EAPs. In addition, Cal OES will report to DWR DSOD those dam owners who failed to resubmit their EAPs and have become nonresponsive to Cal OES requests for revisions.

Following coordination discussions with DWR DSOD, Cal OES will update its policies and procedures to ensure compliance with the CSA's recommendation. These updates will include procedures for:

- Monitoring and documenting compliance with established deadlines by the Legislature for dam owners, when applicable;
- Identifying and reporting delinquent dam owners to DWR DSOD;
- Revising the process for quarterly reporting to DWR DSOD, including highlighting nonresponsive dam owners;
- Continuing to maintain documentation of referrals, communications, and follow-up actions with DWR DSOD.

Cal OES appreciates the assistance and guidance provided by CSA during its audit. If you have additional questions or concerns, please contact Rosa Golla, Chief of the Cal OES Office of Audits and Investigations, at (279) 300-7157.

Sincerely,



CAROLINE THOMAS JACOBS
Director

cc: Rosa Golla, Chief, Office of Audits and Investigations
Ian Bastek, Chief Deputy Director, Operations
Lori Nezhura, Deputy Director, Planning, Preparedness, and Prevention