

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.
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.

continued on next page ...

DAM AND AGE*	DESCRIPTION OF DEFICIENCY	AGE OF DEFICIENCY	EFFECT OF DEFICIENCY	STATUS OF DEFICIENCY
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 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.

continued on next page ...

DAM AND AGE*	DESCRIPTION OF DEFICIENCY	AGE OF DEFICIENCY	EFFECT OF DEFICIENCY	STATUS OF DEFICIENCY
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.	
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.