



Dam Owner Inundation Maps and Emergency Action Plans

About Inundation Maps

An inundation map shows flooding that could result from a sudden hypothetical failure of a dam or its related structure(s). Inundation maps, when paired with dam owners' Emergency Action Plans, inform emergency planning and response by helping to estimate the extent and depth of potential flooding, and by identifying at-risk areas and resources in advance of the floodwaters arriving.

California Water Code requires owners of all dams in DSOD's jurisdiction (except for dams classified with a "Low" downstream hazard potential) to prepare inundation maps for their dam and related structures. This includes dams owned by public agencies, private organizations, and individual landowners. Inundation maps must be updated a minimum of every 10 years from the map preparation date; anytime there are significant modifications to the dam or its related structures; and when there are changes to downstream development or terrain.

Dam owners are required to submit inundation maps to DSOD for review and approval. After DSOD approves an inundation map(s), the dam owner must submit their approved map(s) with their Emergency Action Plan to the Governor's Office of Emergency Services (Cal OES) for review and approval. The review of inundation maps by DSOD and the review Emergency Action Plans by Cal OES are entirely separate processes.

A link to approved inundation maps is posted on DSOD's webpage: <https://fmds.water.ca.gov/maps/damim/>

Public Safety is the Foundation of DSOD's Independent Dam Oversight

The [California Water Code](#) entrusts dam safety regulatory authority to the California Department of Water Resources' Division of Safety of Dams (DSOD). DSOD provides oversight of the design, construction, and maintenance of approximately 1,250 non-federally owned dams within its jurisdiction. DSOD inspects [jurisdictional dams](#) to assess if the dams and their related structures (e.g. gated spillways, saddle dams, etc.) are safe for continued use and performing as intended. After inspection and review, DSOD may direct dam owners to make necessary repairs.

DSOD conducts independent engineering analyses to validate proposed designs of dam repairs, alterations, enlargements, new dam construction, and removals that are submitted by dam owners or their consultants. DSOD reevaluates existing dams as changes in the state-of-practice occur that could impact dam safety. When necessary, DSOD may immediately direct a dam owner to implement remedial means necessary to protect life and property; or DSOD may impose a reservoir restriction that limits the reservoir's water surface level until repairs or remediation work is completed.

About Emergency Action Plans

State law requires dam owners to develop an Emergency Action Plan for each of their dams based on DSOD-approved inundation maps.

The California Water Code and Government Code entrusts the Governor's Office of Emergency Services (Cal OES) to review and approve dam owner Emergency Action Plans. Dam owners must submit their Emergency Action Plans to Cal OES for approval by deadlines that are based on the dam's downstream hazard classification. In the absence of an approved map by the deadline, dam owners are encouraged to develop and submit a draft Emergency Action Plan to Cal OES. Emergency Action Plans must be updated a minimum of every 10 years; when there are significant modifications to the dam or its related structures; and when there are significant changes to downstream development that involves people and property.

An Emergency Action Plan is a dam owner's formal plan that identifies potential emergency conditions at a dam and specifies actions to be followed to minimize loss of life and property damage. It includes information that dam owners use to notify local emergency management officials and state and federal dam safety regulators.

The dam owners' Emergency Action Plan must be developed in consultation with the local public safety agencies that may be affected by a dam incident. The resulting plan and the dam owner's approved inundation map informs local jurisdictions as they plan for all types of dam incidents, including failure of a dam; and helps local, state, and federal agencies ensure effective dam incident emergency response.

Real-life dam incidents do not necessarily imitate the assumptions in the hypothetical failure scenario that are used to develop inundation map(s). When an incident occurs, emergency management agencies conduct local emergency operations based on the scenario at hand.

Dam owners' Emergency Action Plans are not publicly posted because they contain critical infrastructure information and other sensitive information.

Emergency action plans that are produced by dam owners do not direct local emergency response. Only local emergency management agencies have the authority to plan and execute local emergency operations.

For more information please visit:

<https://water.ca.gov/Programs/All-Programs/Division-of-Safety-of-Dams>

<https://www.caloes.ca.gov/cal-oes-divisions/hazard-mitigation/dam-safety-planning-division>

Castaic Dam

