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The 10 States Most Threatened by High-Hazard, Deficient Dams

By Kristina Costa and Donna Cooper | Posted on September 20, 2012, 2:58 am

AP/Bruce Asato

A highway wiped out after the Kaloko Reservoir Dam burst near Kilauea, Hawaii, is shown Tuesday, March 14, 2006.

See also: Ensuring Public Safety by Investing in Our Nation's Critical Dams and Levees by Keith Miller, Kristina Costa, and Donna Cooper

Our nation's infrastructure is in widespread disrepair, but to see where the collapse is particularly threatening to our society and our economy, look no further than our 84,000-plus dams. Consider the following facts:

- More than 28,000 dams—about one-third of all dams in the United States—are already more than 50 years old, the standard intended lifespan of most dams.
- By 2030 more than 70 percent of dams are expected to be at least 50 years old.
- About 14,000 dams across the country are classified as "high-hazard" dams, meaning a dam failure or operational error could result in the loss of human life.
- In 2008 more than 2,000 of these high-hazard dams were also rated structurally "deficient," meaning they were at serious risk of failure.

These economic and human costs of dam failures are real and substantial, as we detail in a new report, "Ensuring Public Safety by Investing in Our Nation's Critical Dams and Levees," released today. The 2003 Silver Lake Dam failure in Michigan, for instance, caused $100 million in damages and put more than 1,000 miners temporarily out of work. Forty-eight homes were destroyed and 53 damaged when Mississippi's Big Bay Lake Dam failed in 2004. And in 2006 the privately owned Kaloko Reservoir Dam in Hawaii failed, killing seven people and releasing more than 300 million gallons of water. The Kaloko dam was more than 100 years old and had never once been inspected by a state dam safety official prior to its failure.

More than two-thirds of all dams are privately owned, and it's not the government's responsibility to pick up the tab for repairing private dams. Nevertheless, state governments should be responsible for inspecting all nonfederal dams—and the resources should be made available to make such inspections possible. This is particularly important because the federal government often foots the bill for the cleanup and consequences when dams fail and communities suffer damage, usually costing taxpayers much more than repairs and inspections would have.

Piecemeal and widely varying oversight among states compounds the challenges inherent in inspecting, maintaining, repairing, and¾where environmentally and economically appropriate¾breaching tens of thousands of dams across the country. Case in point: The National Inventory of Dams counts 2,228 dams in Alabama, 201 of which are classified as high hazard, yet Alabama has no dam-safety program and spends $0 annually inspecting and maintaining dams. While Alabama is fortunately the only state without a dam-safety program, it's not the only state where citizens' lives and property are at risk due to failing dams.

Communities in every state are at risk due to the presence of high-hazard dams in need of repair. Below we list the 10 states with the most state-regulated, high-hazard dams in need of repair in 2010.

10 states with most state-regulated high-hazard dams in need of repair

State	Dams counted in the National Inventory of Dams*	Number of state-regulated high-hazard dams	Number of state-regulated high-hazard dams in need of repair**
Georgia	4606	380	191
Pennsylvania	1546	781	167
Colorado	1822	346	159
Ohio	1577	376	117
North Carolina	3382	1152	114
Indiana	1142	241	89
Mississippi	3533	272	69
Massachusetts	1602	302	63
New Mexico	519	180	63
New Jersey	804	210	45

*2010 survey, includes all NID-sized dams regulated by state or federal agencies. The NID includes dams more than 25 feet in height or that store more than 50 acre-feet of water. The NID also includes dams classified as "high hazard."

**Includes dams classified in "poor" or "unsatisfactory" condition. Does not include dams whose condition was not reported in 2010.

Source: Author's communication with Mark B. Ogden, Association of State Dam Safety Officials. Data derived from the National Inventory of Dams. In 2009 the NID began collecting condition information on high-hazard potential dams. Those with "poor" or "unsatisfactory" ratings are considered in need of remediation. For the 2010 NID update, 66 percent of state-regulated high-hazard potential dams were rated. States voluntarily submit these data.

Even more troubling, six states reported all of their state-regulated, high-hazard dams as "not rated" for structural soundness in 2010. These states are Texas, South Carolina, Hawaii, Florida, South Dakota, and Alaska. Not having a state dam-safety program, Alabama also did not report condition information on their high-hazard dams in 2010. In 2008, 300 of Texas's high-hazard dams were reported as being in need of repair, as were 59 of Hawaii's.

Without sufficient action and resources to assess, repair, and, when appropriate, remove dams in all 50 states, the number of deficient dams will only continue to increase, putting ever more lives and property at risk.

See our report, "Ensuring Public Safety by Investing in Our Nation's Critical Dams and Levees," to learn what Congress, the Obama administration, and statehouses across our country can do about this growing hazard.

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