

**ASDSO Survey – Early Warning Systems  
April 2018**

**Information request from Montana (M. Lemieux):**

We have a legislature water policy committee asking questions about early warning systems on high hazard dams in response to some concerned citizens. It will help us to know the position of other state dam safety programs on this issue. A few questions:

Do you have non-federal dams with early warning systems (EWS)?

If yes, is operation and maintenance of the EWS funded by the dam owner or local emergency managers?

Have there been situations where you have required a dam owner to install an EWS?

**State Responses:**

**California** – This is a response to the questions below from CA Division of Safety of Dams (DSOD). (A. Mangney)

Question 1: Yes, our state does have non-federal dams under CA State jurisdiction that have an early warning system (EWS).

Question 2: The operation and maintenance of the EWS is funded by the dam owner for the dams that have them.

Question 3: DSOD does not generally require an EWS at dams, but we might consider requiring an EWS as a risk reduction measure for a dam that has a known deficiency or for monitoring during dam construction remediation work. There are about 200 dams that are joint regulated by DSOD and the Federal Energy Regulatory Commission (FERC). FERC does require EAP Weirs as an EWS at many dams. This determination is made on a case-by-case basis, considering downstream hazard potential and also remoteness of dam and owner response time to the dam.

**Minnesota** - (J. Boyle)

- Do you have non-federal dams with early warning systems (EWS)?
  - There are just a few non-federal dams in Minnesota with early warning systems.
- If yes, is operation and maintenance of the EWS funded by the dam owner or local emergency managers?
  - I don't know, but I think the dam owner. Most of these dams are publicly owned.
- Have there been situations where you have required a dam owner to install an EWS?
  - Not to my knowledge, but we are considering putting in a system on a state-owned dam.

**Nebraska - (T. Gokie)**

1. We have one dam that has an alarm immediately downstream of the dam.
2. Operation and maintenance is paid for by the dam owner.
3. No. We have suggested an alarm system as a possible risk reduction measure, but we have never required it.

**North Dakota – (K. Goff)**

- 1) No
- 2) N/A
- 3) No

**Ohio – (M. Kannik)**

Ohio has 3 non-federal dams with early warning systems.

- Briar Hill Lake Dam
  - Owned by a homeowner's association
  - The EWS is operated and maintained by the HOA
- Lake Austin Dam
  - Owned by a Campground company
  - The EWS is operated and maintained by them.
- Buckeye Lake Dam
  - Owned by the DNR – Division of Parks and Watercraft
  - The EWS is operated and maintained by the County EMAs (The dam straddles two counties)

Ohio has not required a dam owner to install an EWS

**Oregon** - There are 3 state regulated dams with early warning systems in Oregon. All were funded by the owners, 2 municipalities and 1 utility. I believe 2 were water right permit conditions, after the emergency manager in the downstream county made public and emergency management law comments. The other was strictly that City, since it owns the dam which is just upstream from its downtown. (K. Mills)

**South Dakota** - SD has no non-federal dams with an Early Warning System that I know of. (T. Schaal)

**Texas - (W. Samuelson)**

- Do you have non-federal dams with early warning systems (EWS)?
  - Yes. We have a few.
- If yes, is operation and maintenance of the EWS funded by the dam owner or local emergency managers?
  - Both, though most are funded by the owner. One party had a EWS that they had installed on 23 dams. There were problems during an event that failed to show the

actual conditions due to a lack of redundancy. They disbanded the system, and had USGS install gages. They pay the USGS to maintain.

- One County has paid to have an EWS installed at several dams to provide warning for the county. It is my understanding that the County pays for O&M.
- Have there been situations where you have required a dam owner to install an EWS?
  - We have not required anyone to install an EWS.