

## **DRILL EXAMPLE #2**

Pop Quiz!

Using the scenario below describe what actions you would take at each step in the time-line (use back of page or separate sheets if needed). Provide a hard copy of any products (if any) you would issue for this situation.

Scenario: Today is July 5, 1997. Warm summer day, with a threat of thunderstorms in the Southern Sierras. The snow melt season is over and most of the reservoirs are near capacity.

0840: Call from NWSO Sacramento. They just received a call from the State Federal Flood Center. The flood center was notified by Hidden Dam operator, John Cook (US Army Corps of Engineers) of a problem at the dam. Morning patrols noticed new seepage at left wall of the dam, about one quarter of the way down from the top. Seepage volume is minimal, less than 5 cubic feet per second. Engineering team is investigating. Current reservoir storage 89,540 acre-feet. Release from Hidden Dam is currently 235 cfs.

Actions Taken:

1220: Call from NWSO Sacramento. Update on Hidden Dam from John Cook. Seepage source near crown of dam and canyon wall. Seepage flow now at 25 cfs and holding. Repair teams working on problem. Integrity of dam is not threatened.

Actions Taken:

1243: Earthquake felt in NWSO San Joaquin Valley Office

1315: Call from NWSO Sacramento. US Army Corps of Engineers Emergency Operations Center

called. Hidden Dam integrity is threatened. Currently, there is a small breach in the left crown of the dam. The breach is widening and deepening at a visible rate. At 1402 hrs the flow from the breach was estimated to be 2000 cfs and increasing rapidly. Corps personnel at dam facilities have been evacuated as a precautionary action. Possibility of losing whole structure. Will call back with updates as can. Communications with dam repair teams is cellular and radio only.

Actions Taken:

Here is a list of minimum actions to be completed and things the forecasters should have picked up on.

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Hidden Dam - Hensley Lake - Fresno River - Madera County

River runs through town of Madera before entering San Joaquin River

Minimum Actions:

0840: Log the information in the log book.

Notify other shift members, MIC, WCM, SH and possibly HSD. (Use office policy for notifying MIC, WCM, SH and HSD after hours if applicable. Office policy may dictate not notifying HSD). This is such a minor thing at this point that on the week-ends I probably would not call my MIC, much less the rest of that list, if this scenario stopped here. )

Look up data on dam: county, River, Lake Name, town(s) downstream, reservoir capacity, channel capacity if available, etc.

I would NOT issue any products. Dam operators feel that everything is under control, and they are notifying us mostly as a courtesy only.

1220: Log information in the log book.

Update or notify other shift members and MIC, WCM, SH, and possibly HSD (following office policy for after hours notifications is applicable. Office policy may dictate not notifying HSD).

I would NOT issue any products. Dam operators feel that everything is under control, and they are notifying us mostly as a courtesy only.

1243: Aaaaaahhhh!!!! THINK! What's going on today that might be affected by a big earthquake.

1315: Write down all information as it comes in.

Go live on NWR, with tone alert. After FFW is issued, record the expanded message (SFOFFWFAT).

Flash Flood Warning must be issued now.

Notify County OES (this may be a duplicate call from the dam operator).

Notify MIC, WCM, SH, and HSD.

Log data.

Issue updates to FFW as they are available.

Think about the possibilities, what if there was a total dam failure, what would I do then? Etc.

Reasoning for issuing FFW: Flow increasing from 235 cfs to 2,000+ cfs in the matter of minutes! That is a ten fold increase in flow, and the discharge is increasing as the breach size increases. This is a flash flood! A hint to the possible severity of the situation: "Corps personnel at dam facilities have been evacuated as a precautionary action."

Quote your source of information (US Army Corps of Engineers or Hidden Dam Operators). Give only data you are supplied with and is relevant.

Questions to ask the NWSO Sacramento contact: Did someone contact the CNRFC?