

How to Get the Best of a Natural Disaster

By Julie Sturgeon

“How can you prepare for a 1,000-year flood?” ask disaster-toughened officials at Colorado State University. “There’s no way to anticipate when the clouds will open and dump on you.” But it is possible to flex your smarts beforehand, which is why the Federal Emergency Management Agency now plans to use CSU’s incredible recovery success as a model for disaster response everywhere.

By Julie Sturgeon

Officials at Colorado State University will never read about Noah’s plight with the same eyes again. Like the Biblical patriarch, they, too, saw rain fall from the sky in torrents, leaving them adrift and helpless. But unlike Noah, they didn’t have 100 years to build a boat for their belongings.

So when an isolated storm dumped more than 8 inches of water on the campus in four hours on July 28, 1997— the Fort Collins area normally sees that much precipitation in a full year — it swelled the decoration lake in front of the Lory Student Center and a tiny irrigation ditch to monstrous proportions, and away they went, snaking into buildings with a vengeance.

According to reports, even campus police dispatchers were caught unaware — from the time they noticed water swirling at the ankles to the time they reached the exit, the flood was waist high. When the rain stopped, 15 buildings were closed for safety; the basement of the student center was submerged, destroying the entire fall inventory of textbooks stacked up in the bookstore there; and 500,000 books, periodicals and monographs lay damaged at the library. The damage total mounted to \$100 million, with school scheduled to begin fall classes in a mere three-and-a-half weeks.

“Our first inclination was to curl into a ball and cry,” admits Carrie Schafer, the public information specialist who fielded 150 media calls in three days. “The work that lay before us was so overwhelming ... it was incredible. Everywhere we turned there was something lost, something damaged.”

The question lurking the back of everyone's minds, of course, was "Can we start the fall semester?" Within 24 hours of the disaster, CSU's president sent an urgent yet simple message to the campus and community: Yes, we can. He was right on the money.

For starters, CSU had a pre-arranged, generic disaster plan to guide it. Ironically, the staff had pulled it off the shelf, dusted it and completed a tabletop disaster exercise — although flooding wasn't the focus — only a few weeks before the real test. "The fact that we had been in the same room discussing, 'What is your role?' and 'What is my role?' really helped solidify us at crunch time," Schafer says. Additionally, the administration sat down with key folks on the clean-up team twice a day to go over the main priorities, discuss new developments and outline how to handle situations.

Among the people at those meetings was Bill Boss, the man who led recovery efforts of the World Trade Center after the 1993 bombing, and his partner, Debbie Boss. According to Debbie, who is secretary-treasurer of Boss & Associates and field auditor on this project, any university can duplicate CSU's success:

1. This day, week or month, while things are looking up, investigate a professional recovery team you would turn to after a crisis. Don't assume you'll assign a facilities manager to such a task, Boss warns, because a 10-day clean-up task can turn into a 10-month one if you don't know what you're doing. Take, for example, a school in North Dakota who did exactly that. Says Boss, the employee hired contractors and took a kickback from them, setting off a legal battle. "They basically had to shut down that school until they resolved some of these crazy issues," she warns.

2. Inventory your school's possessions and plan to update that data on a regular basis. CSU librarians discovered paintings and rare documents they didn't know they had in the basement, until they surfaced under coats of mud for a freeze drying to kill the mold and hopefully save their lives. Maximizing the computer age to microfilm or scan journals into electronic forms as a back-up to the paper versions is always a good plan, too.

3. After a disaster strikes, do not let *anybody* onto the property until the professional project manager is in place — and that includes subcontractors, media and professors who want to salvage their items. The calamity could expose dangerous asbestos, toxic fumes or unstable foundations that put you at a liability risk from these people. And, Boss points out, you expose your inventory to thieves and looters. "I saw a 1939 signed document from the Queen and King of England

hauled out of a building. If the wrong person gets hold of that, it's gone! And who knows what that's worth," she says.

In CSU's case, the extra bodies that managed to sneak onto the damaged properties meant openings for annoying salespeople and less-than-savory subcontractors operating without permission — both categories adding to the rip-off schemes that surface at every disaster.

As for the professors who saw their entire careers washed up, Boss says the key to cooperation lies in proving someone is shouldering the responsibility professionally. "When they realized we were committed to repairing their items rather than sorting through and tossing them out, they calmed down," she says.

4. It is the project manager's responsibility to hire and coordinate subcontractors, but insist that person negotiate not-to-exceed bids with team members before anyone raises a hammer. Boss & Associates recently wrapped up a PCB leak project in Israel that drug on for two years without such a strategy, raising the total cost from the original \$6 million estimate to \$25 million. Don't be the next statistic.

5. Recovery teams' first concern at first inspection of a disaster site is always contamination. Call environmental health officials to the scene immediately, and demand everyone wear masks or even respirators in the early stages. Speaking of contamination, bone up on your state's asbestos removal policies before an act of God to use this prior knowledge toward a smooth — and quick — recovery.

6. Don't assume you have to replace everything that is dirty and dinged. CSU officials sighed and prepared to write a check for \$2,000 per computer until Boss & Associate's experiences halted their pens. They called in a specialty company to hose down the computers, sanitize them, and clean/replace the internal components. The cost: a reasonable \$300 to \$500 per computer. Ditto the \$450,000 worth of copy machines that sales representatives assured were trashed. "They were muddy and nasty, but insurance companies only pay what it's worth at time of damage. You make up the difference for a new one out of your pocket," Boss notes.

7. On the other hand, don't take advantage of local merchants, either. Universities are typically the hub of a small, close-knit town that needs to pull together in tragedies. Hogging the Red Cross' free bottled water for paid laborers at residents' expense or demanding the corner Subway cut its profits to feed these contractors sets off contentious sparks. "Now that's not to say treat volunteers

courteously, but if someone is being paid well for the job, they aren't entitled to freebies, too," she points out.

8. Implement a "no talking to the press" rule in these classrooms. Boss told her subcontractors that if their faces appeared on television or their quotes in the newspapers, pack the toolbox — their contracts would be null and void. Instead, she passed out phone numbers to the public relations folks, with instructions to politely but firmly call them onto the scene if approached by the media. The goal is not to be uncommunicative but to keep the facts straight. "I heard rumors as far away as Atlanta that the university was shut down for fall semester and it absolutely wasn't true," she explains her policy. "You can get into a profits nightmare that doesn't need to happen if handled properly."

9. Use the Internet to communicate a consistent message and cut down on time consuming, one-to-one phone calls. CSU's web site recorded more than 20,000 hits during the three-week clean-up, as faculty, parents, students and the media typed in for updates. "We weren't always here to even answer the phones, so there's no way we could have fielded that many calls," Schafer says. She simply included the university's web master with a copy of all news releases as they were sent to local media — and took advantage of the Web's immediacy to update any misinformation that crept into media reports.

Today, educational activities at Colorado State University are flowing peacefully. "Thanks to the amazing teamwork, unless you go into very certain areas, you wouldn't even know there was a flood," Schafer says proudly.

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Before the Hammer Falls

Thanks to El Niño's sway, the chance for floods in the United States is greater than usual this year say meteorologists. But why wait for that particular phenomenon? The list of potential disasters year-round is mind-numbing: earthquakes, extreme heat, hurricanes, landslides and mudflows, tornadoes, tsunamis, volcanoes, wild fires, blizzards, thunderstorms and lightning,

hazardous materials, radiological accidents, nuclear power plant emergency and terrorism — to name a few.

Before you feel helpless against such possibilities, heed these Federal Emergency Management Agency's inexpensive steps to protect yourself. (You can find these and other suggestions at FEMA's web site, <http://www.fema.gov>.)

- Be sure that all trees are far enough away from buildings that they can't fall on them during violent wind conditions. Cost: \$300 to \$500 per tree.

- Ensure that desks or tables that hold computers and other expensive equipment are not so light that they can be easily over-turned. If they are, anchor the ends of chains, cables, or elastic cords to either the wall or the surface of the desk, table, or counter using eye-hooks, rings, screws and washers, or other types of mounts. If you want to use a wall-anchored chain, cable, or cord, attach it to a closed eye-hook screwed into the wall or to a wall mount (such as a ring or plate) attached with screws. Make sure the eye-hook or screws are long enough to penetrate not just the wall but the studs behind it as well. cost: \$2 to \$10 per computer.

- Before anchoring a bookcase with screws through its back, make sure the back is sturdy enough and that it is securely attached to the sides, top, and bottom. Some bookcases have backs made of very thin materials held in place with only small screws or staples that can easily pull out — they should be anchored with brackets. If you have two or more bookcases or file cabinets next to each other, connect them to each other as well as to the wall for greater stability. And to prevent the contents of these bookcases from falling out, install a thin metal or plastic rod, a wood dowel, or even an elastic band across the front of each shelf. Cost: approximately \$5 per horizontal foot.

- If you are vulnerable to floods, consider adding a waterproof veneer as part of the buildings' regular remodeling or repair work. Brick buildings may also take advantage of this protection, thanks to a water-proof membrane that can be added over the existing brick. Expect to pay in the neighborhood of \$10 per square foot for the exterior wall. (Note: If buildings are flooded by groundwater entering through the floor, this method will not be effective, FEMA advises. And it's appropriate only in areas where the expected flood depth is less than two feet.)

- Replace your existing roofing materials with slate, terra cotta or other types of tile for the best fire protection. Slate and tile can be much heavier than asphalt shingles or wood shingles, however, so your roofing contractor should determine whether the framing of your roof is strong enough to support them. And if you are in an area where snow loads are a problem, consider switching to a modern

standing-seam metal roof, which usually sheds snow efficiently. Cost: approximately \$4 per square foot of roof for tile or metal roofing; \$7 per square foot of roof for slate.