

Not My Fault: Of floods, quakes and the difficult decision to evacuate

Lori Dengler/For the Times-Standard

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Hurricane/tropical storm Harvey dominates the headlines this week. Closer to home, fires continue to blaze with shifting boundaries and impacts on local residents. What these situations have in common is the difficult problem of evacuation – how to get people out of harms way before the danger strikes.

Decisions to order an evacuation in the face of a disaster, whether voluntary or mandatory, is left up to the states and the governor of a state must first declare a state of emergency and request help. “Voluntary” evacuations are just that: suggestions that people evacuate in the event of a disaster. “Mandatory,” or “directed,” evacuations, imply that people will be forced to evacuate, but it is rare that any actual force will be put into effect.

California has legislation that makes it a criminal offense to disobey a mandatory evacuation order. In reality, people would almost never be forcibly removed from their own homes. More likely they will be cleared from public property within an evacuation zone and, if away from their homes, prevented from returning to them.

It’s pretty easy from the comfort of my sofa hundreds or thousands of miles from an ongoing disaster to recognize that for some disasters, the best response is to get away – whether an evacuation order is mandatory or not. But when the threat becomes personal, many people even when advised to evacuate, refuse to do so.

There are many roots to this reluctance to evacuate – some are physical (like disabilities), some economic. But according to social scientists who study the behavior of people during disasters, it is mainly related to how people perceive risk and how they process the relative risk of staying to leaving. Our home is a place of safety and it is where most of us want to be if threatened. We don’t experience disasters every day and don’t have a mental road map to how it will unfold and the appropriate actions to take. Our first reaction to the unusual is denial – it isn’t happening or it isn’t as bad as we are being told.

Harry Truman, the caretaker of the Mt. St. Helens Lodge in 1980 was famously quoted as saying "I don't have any idea whether it will blow. But I don't believe it to the point that I'm going to pack up." Unfortunately Mt. St. Helens did blow, entombing him and burying the site of his lodge under about 150 feet of volcanic debris.

The disaster most likely to require North Coast folks to evacuate is a tsunami caused by a great earthquake on the Cascadia subduction zone. I think of a tsunami as a “wet and dry” proposition. If you are wet, your chances of survival are very small. If you are dry, you are just fine.

Last week, The Guardian, an internationally respected British newspaper, featured a story about the 2011 Japan tsunami and how an evacuation decision went wrong. Okawa elementary school was located about two miles inland, but on low ground next to a major river. It was also adjacent to a 500-foot hill with a trail that classes had often used for nature studies. It would have taken no more than 10 minutes for everyone in the school to safely reach high ground.

Unfortunately, there was much confusion at the school about the emergency plan and they had never practiced an evacuation. After the earthquake, teachers spent precious time in debating whether to evacuate to higher ground. And when the decision was finally made, they decided to go towards a bridge over the river, rather than up the nearby hill. Of the 78 students who were at school that day, 74 of them, and 10 out of the 11 teachers, perished in the tsunami.

The outcome was very different at Unosumai elementary and middle schools in Kamishi about 60 miles to the north. The 3000 students in these two schools had been part of a program that taught students to take responsibility for their own safety. They practiced tsunami evacuation drills. They learned to always go as far as they could. On March 11, 2011 they put their skills to good use. I visited the schools a year later – there was still a car smashed into to upper floor and debris everywhere. But not a single Unosumai student or teacher died in the tsunami, even though they had to run more than a half mile to get to safety. It’s called “The Miracle of Kamaishi”.

It is difficult to make decisions during a disaster. That is why possible actions need to be sorted out ahead of time and like, the students at Unosumai, practiced and drilled. Think about the four options the people in Japan had and the consequences of their decisions. 1) You

choose to evacuate and there is no tsunami. You've gotten some exercise and developed the muscle memory on how to evacuate. You've "lost" perhaps an hour of your day. 2) You choose not to evacuate and there is no tsunami - you got away with it and might be less likely to take it seriously next time. 3) You evacuate and there is a tsunami - you live. 4) You don't evacuate and there is a tsunami and you die.

Which choice makes the most sense?

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