Taylor Earl

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Geology

This article starts out talking about how utah is “Earthquake Country”. They establish that earthquakes to happen in Utah, even though it has been a while. But they then proceed to establish that a lot of people aren't ready when it does happen.

Utah is located right in earthquake territory. And to make it even worse, the majority of the population of Utah is located right along the danger zone. Since we are located right on the wasatch fault, we don't only have to worry about the magnitude 5 earthquakes that happen fairly frequently (in geological time) , but we also have to worry about the higher 7-8 magnitude earthquakes also.

When an Earthquake begins, most of the damage is caused by the shaking. So by the rules set up by Geologists, the closer you are to the earthquake, the harder the shaking will be, therefore more damage will be sustained in that area. However, there are a lot of other side effects to earthquakes. Damaged infrastructure, fires, dam failures and seiches, hazardous materials, and surface fault ruptures can all happen as a direct result of an earthquake.

Different buildings respond differently to earthquakes. The soil that a building is constructed on plays a key role to how it handles an earthquake. Soft clay is very good to move with the quake, while hard rocks don't, almost guaranteeing shaking. The size of a building also plays a part, tall buildings like to sway while square or rectangle buildings tend to hold up better. And last but not least, the materials used to build play a role too. Wood and steel are known for being flexible, while concrete that is used for building cannot transfer energy and isn't safe. To help with stuff like this, a set of building codes have been created in order to help prevent damage when an earthquake strikes. These provide a minimum requirement for constructing a safe building. These codes haven't always been around though, anything built prior to the 1970’s isn't safe at all from an earthquake, and even things built before the 2000’s aren't the safest either. These buildings all have to be re-evaluated and assessed for how they can become safer. A great example of this is the capital, it recently underwent a huge remodel that helped make it safer in the event of an earthquake.

If an earthquake was to happen in Utah, it would have the possibility of crippling the infrastructure. More than 75% of Utah’s economy is centered along the Wasatch Front, which is also the area most likely to sustain an earthquake. Along with this the vast majority of government buildings are also along the fault. Transportation systems like I-15 and the Salt Lake International Airport would be affected also. If an earthquake was to hit, we would most likely lose a lot of this stuff. This could in turn create a lot of chaos and panic along the wasatch front.

The article proceeds to ask a few questions. If an earthquake was to hit, would you have medical service? An earthquake has the potential to not only damage a hospital and its operations, but also overload it with other injured people. The next question is would you be able to get home? Earthquake damage might end up closing certain main roads such as I-15 that we talked about earlier and it will most likely hurt public transit as well throwing off transportation for everyone. If you are at work in Salt Lake City, and your kids are at home in Syracuse, and an earthquake its, it could very well take hours before you were able to get home to them. There are other things they give you to consider like what will the condition of your home be, how will your job be affected, or what services could you live without. These are all very important things to consider when preparing for an Earthquake.

In order to help you and your family out in an Earthquake, they give seven steps to help keep you safe. Step 1 is to find potential hazards in your house such as falling furniture, objects on open shelves and tables, water and gas lines, kitchen dishes, and fix all of this. Step 2 is to create a disaster-preparedness plan that helps you and your family know what to do in the case of an Earthquake or other emergency. Usually this would include what to do if an earthquake happens, and where to meet or how to contact the family after it happens so that everyone can know each other are safe. Step 3 if to create disaster supply kits. These will help you sustain yourselves until you are able to get more supplies. These may contain medication, water, food, cash, battery radio. All things that could be used in the case of an emergency. Step 4 is then to identify hazards on the outside of your house and begin to fix them. This may involve checking to see if you have unreinforced masonry walls, or what your foundation is created on. These are all things that should be done before an earthquake happens. During a quake step 5 is the protect yourself during the shaking. After the quake, Step 6 is to check for injuries and damage, and step 7 is to follow your disaster preparedness plan you set up in an earlier step. These are all things that will help you stay safe in the event of an earthquake.

The article makes a point to bring up the possibility of what an earthquake could do to ones finances. Right after the disaster, access to one's bank funds may not be possible, so we should all be ready with some backup money if it happens. Also local economies have the potential to get totally messed up. Right after an earthquake, the last thing that people will be thinking about is going to a local store. So that can really mess with their profits and operating costs.

To sum up what the article talked about, Utah is very prone to earthquakes. Infact its coming sooner rather than later. The best thing we can do is to realize that its coming, and be prepared for it when it happens. We can prepare by not only updating the foundations our the buildings around us, but we can also prepare by talking about it with our families and getting a plan ready. Knowing what to do after an earthquake hits is the most vital part of it all, and could change the whole outcome of the disaster. If we follow what this article talks about, there is a really good chance that we will all get through it ok.