

# THE CLIMATE CONNECTIONS PROGRAM:

*A Disaster Resilience Plan for the Episcopal  
Diocese of Los Angeles*



Supported by  
Edison International



DR. LUCY JONES CENTER  
FOR SCIENCE AND SOCIETY

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# Preface

Welcome, churches!

Thank you for joining the Climate Connections program. We are delighted that you are joining us on our mission to foster the understanding and application of scientific information in the creation of more resilient communities. We have crafted this church-based resilience program, based on the Connected Communities program of the Dr. Lucy Jones Center for Science and Society to empower the Parishes in the Los Angeles Episcopal Dioceses to be more successful in helping their communities during a disaster.

We are all aware that the climate is changing because of human activities, especially an increase in trapped heat from greenhouse gasses. This trapped heat is also increasing the rate of weather disasters. We are already seeing this increase in floods, tornadoes, wildfires and extreme heat, and the rate of increase is increasing. It is too late to pretend that this increase can be reversed before we have to change how we respond to the disasters. We need to be more resilient.

A resilient community is one that prepares for disasters. Resilience is the ability to collaborate, at all levels, to shorten the time needed to respond to the immediate impacts of a disaster event, reducing any losses or impacts. Social capital – interactions and connections between people in a community – is a critical component in recovery from major disasters. A community working together is one of the best ways to minimize these losses and return to normal more quickly. An important goal of this program is to strengthen the relationships between churches, where people already are coming together. This is designed to help your churches increase their capacity to build resilience and advocate for resources to address their risks.

In addition to focusing on what each individual church can do, we will also focus on preparing the Dioceses for the immediate aftermath of a disaster, as well as inspiring people to address longer-range resilience issues. This will enhance the support network that can help partitioners stay and help the community during the challenging process of restoration and rebuilding. Through this effort, we hope to help strengthen your church, your community, the Dioceses and the ties that bind it together in order to not only survive a disaster, but to become a thriving community as well.

The skills that are learned and the connections developed will help the Diocese through any disaster. While some resilience measures may focus on one type of disaster, the Diocesan resilience plan will be invaluable no matter the type or scale of disaster you eventually experience. And the improved communication and stronger ties between your Parishes will yield benefits even if disaster does not strike.

Through this program, we will work together to create a Diocese resiliency plan that will involve, enhance, and enable member Churches to lead your communities in times of crisis. Neighboring organizations and businesses can also be important partners. Even if they do not participate in the program at your church,

assistance or resources they may be able to provide can supplement your program. It is also important that they know about the existence of your eventual resilience plan and are appropriately included to help improve communication and cooperation before, during, and after a disaster.

I hope that this program will both improve your resilience to natural disasters and increase connections within the Los Angeles Episcopal Diocese to help you respond to future disasters. We hope the resilience plan will help your community survive and thrive in the aftermath of a disaster, thus increasing the likelihood that the overall community will recover and remain intact.

Sincerely,  
Dr. Lucy Jones

## Acknowledgements

The Dr. Lucy Jones Center for Science and Society is a project of Community Partners.

### **Edison International Support:**

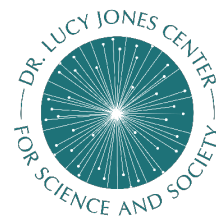
We are very grateful for the continued support of Edison International in creating the Climate Connections Program. Their funding and encouragement made this program possible.

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# Introduction

**Goal:** A Diocese with resilient and connected Parishes, able to help their communities before, during, and after disasters.

A resilient parish will be aware of the risks they face, and are prepared to protect the parish and help their parishioners when a disaster strikes their community. A resilient Diocese will work together, at all levels, to improve its ability to handle any disaster, thereby reducing impacts and losses, and shortening the recovery time of their communities. When facing a disaster, we are all in it together. Whether we are facing wildfires, floods, extreme heat, or the inevitable earthquake, the basic capacity for resilience is needed.

This program will help the Los Angeles Episcopal Diocese develop individual resilient parishes as well as a plan for individual parishes to provide mutual aid in both local and regional disasters. The program begins with a few month project to understand your risk, evaluate your capabilities and develop a response plan. Once the plan is in place, you will develop an approach to keep it current and regularly practice the strategies. The primary steps are:

## 1. SET THE SCOPE

**Find the people who will create and implement the plan and decide how extensive of a program you want**

## 2. UNDERSTAND YOUR RISK

**Determine what are the most likely disasters you will be facing and what they will do to your community**

## 3. CREATE YOUR DISASTER RESILIENCE PROGRAM

**Identify what can you do to help, who will be involved, what will you try to accomplish, and how you can reduce your church's vulnerability**

## 4. KEEP IT GOING

**Create an approach to keep the program active, determine how you will incorporate new members and remember what needs to be done, including an annual drill**

By the end of this program, you will have created a customized framework for resilience for your parish, a refined communication strategy for your parish and how you connect to the Diocese, and a basic operational strategy for each Church in relationship to the Diocese

## Logistical Requirements:

Every Parish will undertake this program differently. The particulars of the risks, needs, and capabilities of each church and its surrounding community are different and we hope that each group will take the parts of this guide that they think will be most useful and helpful to them and incorporate them into their own version of this program.

The key to success of this program is engaging the right people in your church congregation. You want to engage the individuals, families, and groups that are the glue of your community, the people who are already connected with each other. You will need to decide how to get the right people to participate and how to encourage them to be part of this. We are asking that at least two members of the committee be willing to participate in the Diocesan-wide planning.

This program is designed to be flexible, with each Parish taking bits and pieces that they feel are most relevant to them and developing their resilience planning at their own pace. There will also be periodic Diocesan cohort meetings to share notes and develop the Diocesan wide plan.

You will need to create a schedule for the sessions and any individual exercises to be completed outside of the sessions. Do you want to meet after church on Sunday or schedule midweek meetings or zoom calls? We recommend at least some of the meetings be in person to help participants to connect to each other. Once the program is up and running, you will need to determine how to keep it going; e.g. monthly meetings, yearly renewals. A Google Drive will also be provided as a place to store and share resources and useful links.

# 1.

## SET THE SCOPE

*(one meeting)*

The disaster resilience committee can be part of a larger climate action committee, or working solely on the disaster resilience plan for the church. Maybe this is a disaster subcommittee, or a minister and an administrator (note: in this group, make sure to include the maintenance administrator and rector). This first meeting will be to get to know each other and to decide on the scope of the activities you want to undertake.

To help jump start the work that will eventually need to be done at your church, we suggest starting with a discussion of what the participants know about disaster resilience. Determine why they're interested in the program and use that reason and the self-assessment below to help build the lesson plan.

### ***Discussion Questions:***

"Why did you decide to participate in this program? What motivated you to join the program?"

"What do you expect to gain from the program?"

"What is your preferred timing for the sessions? (e.g. dinner time, after work, weekends, etc.)"

"Do you already have connections to other Parish involved? Are there other teams or committees that are a part of this church that you think should or could be involved? Any neighboring business or organizations you think should be considered as a part of our resilience planning?"

"Do you have any remaining questions about the program?"

You also want to get an idea of where the individuals, families, and the church as a whole are currently in their respective disaster planning.

### ***Discussion Questions:***

*Use these questions as a self-assessment tool to develop a baseline for the community:*

"What, if anything, have you already done to prepare for disasters? (for example: creating supplies, financial planning, etc.)?"

"Within the next three months, what are you planning to do to prepare for disasters?"

"Within the next year, what are you planning to do to prepare for a big earthquake?"

"Are you afraid of disasters?"

"Do you feel prepared for disasters?"

"How strongly is the church committed to disaster resilience?"

The group then needs to decide how they want to engage the congregation and how extensive a response you want.

### **Discussion Questions:**



Are you trying to reach everyone after a disaster? You will need to choose an “opt-out” approach to the planning which assumes that everyone will participate. The alternative is to ask who wants to participate, where your participants are more committed but you are helping fewer people.



What services do you want to provide in the aftermath of a disaster? Possibilities are:

- Contact everyone in the congregation to determine if they need help
- Maintain an inventory of needs in the congregation (e.g., people who need electricity for life-maintaining equipment, people with asthma or COPD who will need help during times of heavy smoke, people with mobility limitations) with plans to provide extra support when needed.
- Food and water supplies



Do you want to plan to provide shelter? This requires more planning but also opens up sources of support (e.g. FEMA funds) after a disaster.



If you have solar power, do you want to consider a cooling center during heat waves?

You will need to establish a database of needs for disasters. Which means determining who in your congregation will need help and can provide help. See the [\*sample email in the Appendix\*](#), that you can use to solicit participation.

### **Discussion Questions:**

“Who do you want to involve in the planning?”

“In the next disaster, will you depend on:

- Just the paid staff?
- Volunteers on the disaster committee and paid staff?
- Volunteers from across the congregation?”

The sample email includes questions about skills that members of the congregation can provide to help others after a disaster. If you decide you want to plan only for paid staff, or paid staff and select volunteers, you should leave that part out of the email. You will use this information in Section 3 of this planning guide.

Before distributing this email, you need to discuss your level of comfort in asking for and sharing this type of information.

### ***Discussion Questions:***

“What are the concerns or sensitivities in the congregation for sharing this information?”

“Is there an existing directory?”

“Do you want to publish this information on the website?”

“If you do not want this information on the website, how else should this information be disseminated?”

### **Outcomes of Session 1:**

**At the end of this section, you will have:**

- 1. A committee that will undertake this project
- 2. The scope of your disaster resilience program
- 3. A plan to engage the congregation



## Climate Connections Committee

**Name (First, Last)**

**Preferred Contact (email, phone number)**

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## Scope

Establish your scope. Details of how to create the program will be covered in Section 3. For now, identify your constituents and how you will engage with them.

**Who are you trying to help?** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**How will you contact them and bring them in?** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 2. UNDERSTAND YOUR RISK

*(one or two meetings)*

Assess and understand the hazards your church faces and what assets and functions are at risk. The first step is to understand your hazard - what natural and man-made extreme events are possible in your area. The second step, assessing the risk, is understanding what will happen to you and your property when that hazard occurs.

Below is information to take you through looking at the risks you face. First go through the hazards and discuss which ones pose the biggest threat to you.

### Hazards

When thinking about natural hazards, we almost always think about the risk in terms of the fatalities, but their impact goes well beyond that. In many cases, we should be more concerned about life after the disaster than the very low chance of dying during the disaster. Major disasters disrupt lives, cause large economic losses, and strain the connections we have with other people.

In Southern California, our primary concerns are:



Extreme heat



Flooding



Earthquakes



Landslides



Extreme weather



Wildfires



Tsunamis

You should evaluate the hazard from each of these perils.

## Resources:

To understand more about how these perils affect us and why some of them are changing with climate change, you can listen to the podcast, [Getting Through It](https://drlucyjonescenter.org/getting-through-it/): [drlucyjonescenter.org/getting-through-it/](https://drlucyjonescenter.org/getting-through-it/)

The [MyHazards tool](https://myhazards.caloes.ca.gov), created by CalOES, allows individuals to input their address and see their vulnerability to earthquakes, floods, fires, and tsunamis. The tool also offers steps to reduce the identified risks: [myhazards.caloes.ca.gov](https://myhazards.caloes.ca.gov)

A private firm, [Temblor](https://temblor.net), also allows you to map different hazards by clicking “check your risk”. Many people find the Temblor tool easier to navigate and understand: [temblor.net](https://temblor.net)

## Extreme Heat



[Getting Through It Episode #12: Our Biggest Killer: Extreme Heat](#)

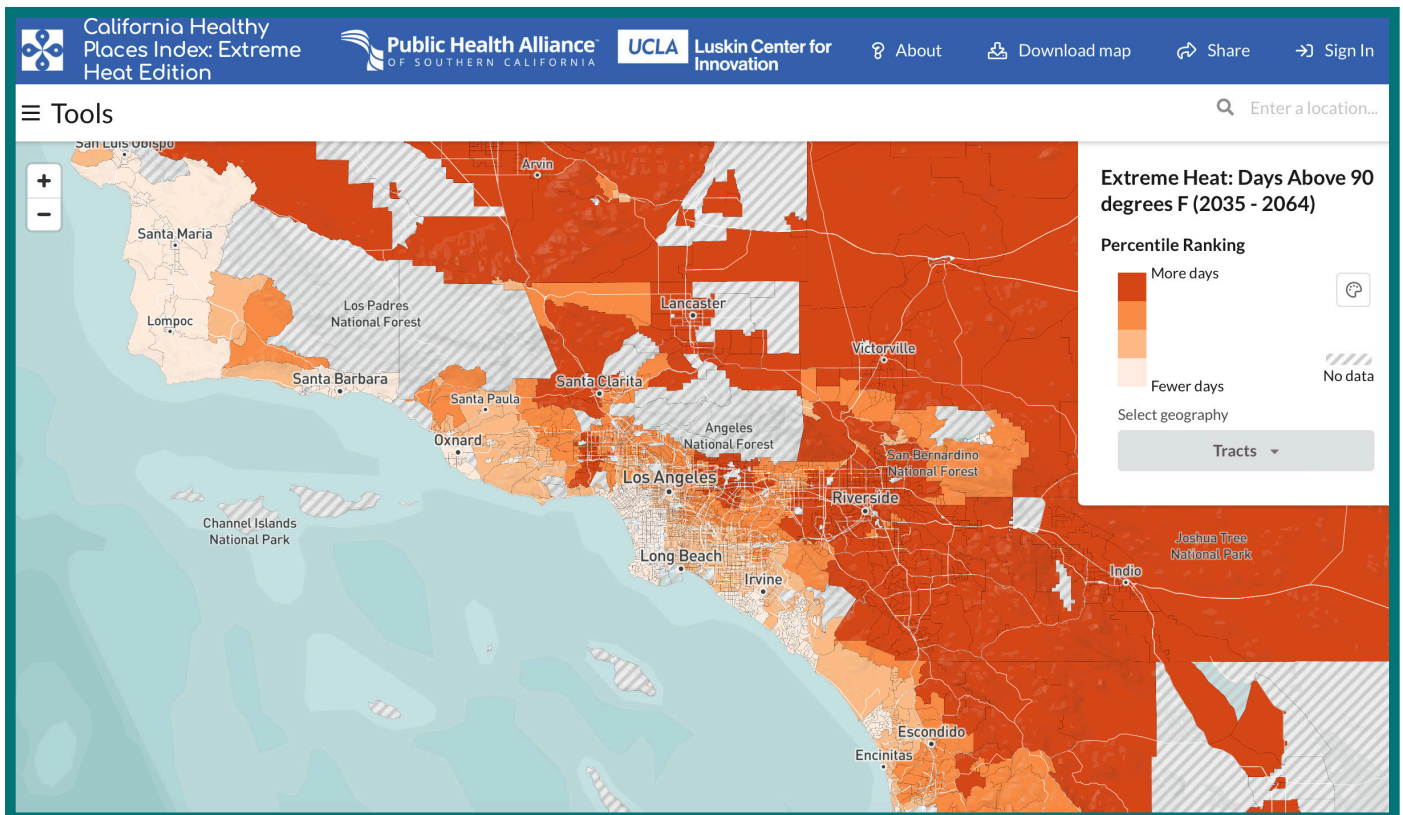


Image source: California Healthy Places Index: Extreme Heat Edition, <<https://heat.healthypacesindex.org/>>.

Extreme heat is one of the deadliest and least appreciated perils. In the last fifty years in the United States, more people have died from extreme heat than any other hazard, almost 20% of the total death toll. Many of these victims are older and living alone. Because of climate change, excessive heat days (where the maximum temperature is above 32°C/90°F) are becoming more common, and the duration of heat waves is increasing. All of Southern California is at risk. Obviously, inland areas have generally hotter temperatures, but the coastal communities are often less prepared with more people without air conditioning.

## Resources:

For more information on extreme heat, [\*\*\*UCLA has created a map\*\*\*](#) for areas at risk of extreme heat days: [heat.healthyplacesindex.org](http://heat.healthyplacesindex.org)

LA County put together [\*\*\*guidelines for becoming a cooling center\*\*\*](#) in response to this risk: [publichealth.lacounty.gov/media/coronavirus/docs/community/GuidanceCoolingCenters.pdf](http://publichealth.lacounty.gov/media/coronavirus/docs/community/GuidanceCoolingCenters.pdf)

## Earthquakes



### ***Getting Through It Episode #26: What is an Earthquake, Anyway?***

*(To start- other episodes cover other aspects of earthquakes)*

All of Southern California is also at risk for earthquakes, with more than 200 active faults around the region. Because the average time between earthquakes on a given fault can be hundreds or even thousands of years, we don't know which earthquakes will occur in the short time frame of a human life. You cannot plan for future earthquakes by worrying about any one fault, but should rather look at the maximum level of shaking that is likely to occur within our lifetimes. The level of shaking is described with an Intensity Scale (written with Roman numerals to differentiate from the magnitude scale). The map below, from the Temblor tool, shows this expected shaking for an average lifetime. We can see some variation, but all of us have a higher risk than anywhere else in the United States outside of California.

## Resources:

For more information on earthquakes, Putting Down Roots in Earthquake Country will give you the background information you need for this section. Visit their website to access the various booklets.

- ***Southern California Resource:*** [earthquakecountry.org/roots](http://earthquakecountry.org/roots)
- ***Nationwide Resources:*** [earthquakecountry.org/booklets](http://earthquakecountry.org/booklets)
- ***Fault map of Southern California:*** [conservation.ca.gov/cgs/documents/publications/map-sheets/MS\\_048.pdf](http://conservation.ca.gov/cgs/documents/publications/map-sheets/MS_048.pdf)

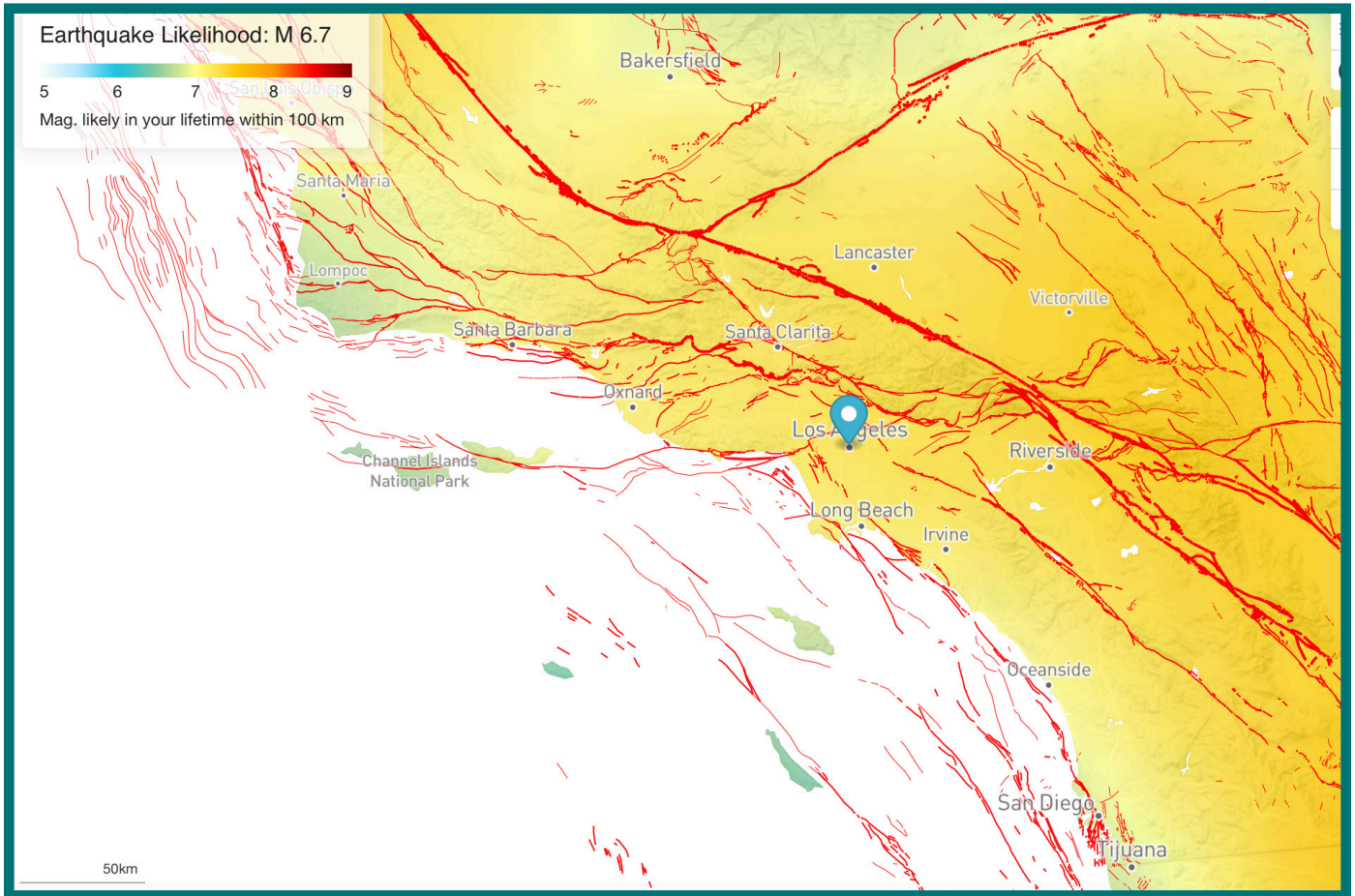


Image source: Temblor, <<https://www.temblor.net/>>.

## Extreme Weather



***[Getting Through It Episode #112: Happening Right Now: More Extreme Disaster Events](#)***



***[Getting Through It Episode #115: The Reality of Atmospheric Rivers](#)***

The first manifestation of a warming climate is an increase in extreme weather events. Heat is energy and more heat in the atmosphere means more energy to drive storms. Consider the extreme weather that has hit your region and now imagine that this becomes more common and potentially more severe. High winds, including tornadoes and hurricanes have hit southern California in the past and could become more common. If your church is in the mountains and gets snow, this should also be considered.



## Tsunamis



***Getting Through It Episode #41: All about Tsunamis***

After the major tsunamis of 2004 and 2011, public awareness and concern about tsunamis has been very high with much misinformation. Tsunami occur because of a sudden change in the shape of the seafloor, displacing the water above it. Major tsunamis only happen with extremely large seafloor displacements, almost always associated with very large ( $M \geq 8.5$ ) earthquakes. A tsunami is not a breaking wave, but rather a rapid increase in sea level. The only locations at risk are those that are very close to sea level. In California, all such locations have warning signs of "Tsunami Inundation Zone".

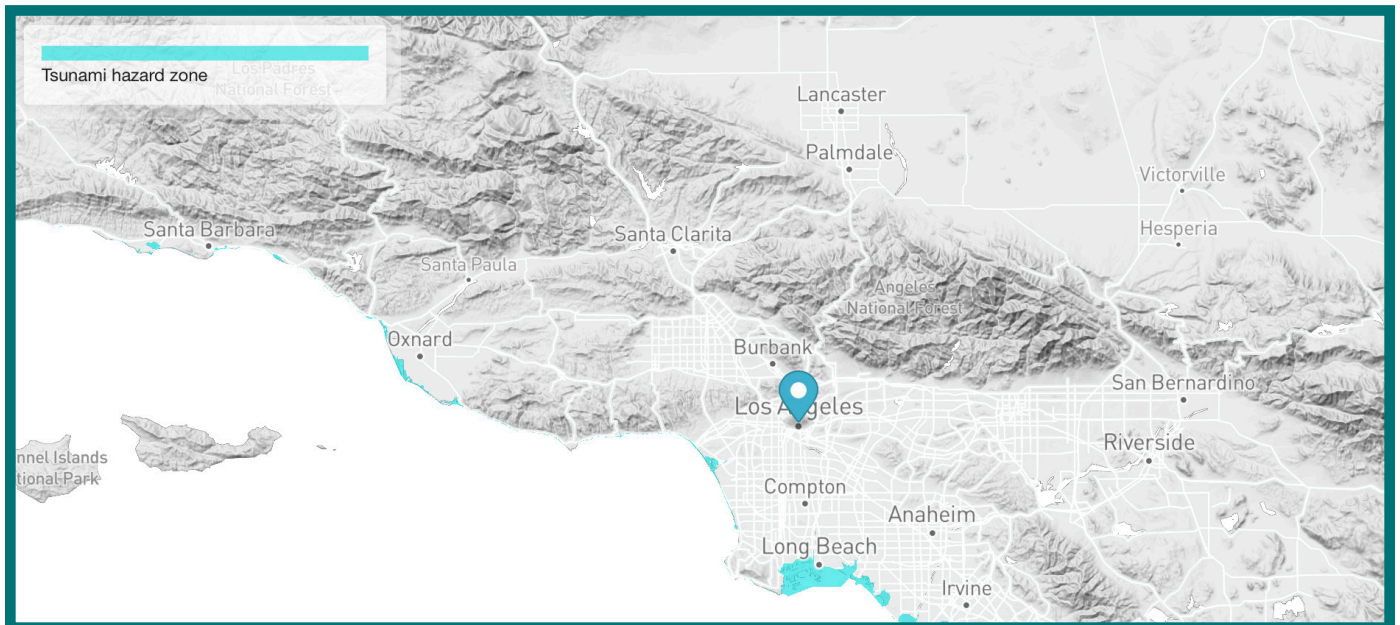


Image source: Temblor, <<https://www.temblor.net/>>.

## Flooding and Landslides



***Getting Through It Episode #20: Debris Flows and Landslides***



***Getting Through It Episode #59: Stationarity is Dead***



## Getting Through It Episode #72: Fire + Rain = Debris Flows

California has built extensive flood control systems that so reduce the exposure to smaller floods, that many Californians no longer recognize that we face a significant risk. Over the last 200 years, more southern Californians have died from floods and landslides than from earthquakes. The risk of water inundation is primarily in the lowest lying areas, while the risk of rain-induced landslides is in the mountains and downslope from the drainages. These disasters tend to impact fewer people, but the individual losses can be large.

The risk of flooding or landslides can lead to forced evacuations. Landslides that move on surfaces in the rocks can happen well after the rain has fallen, as the water percolates down to the unstable surface. By contrast, “debris flows,” the type of landslides that are made more likely by fires, happen because of flow over the surface. The chemicals produced by the fire repel water, increasing the flow across the surface and picking rocks and other debris. These debris flows only happen during heavy rain.

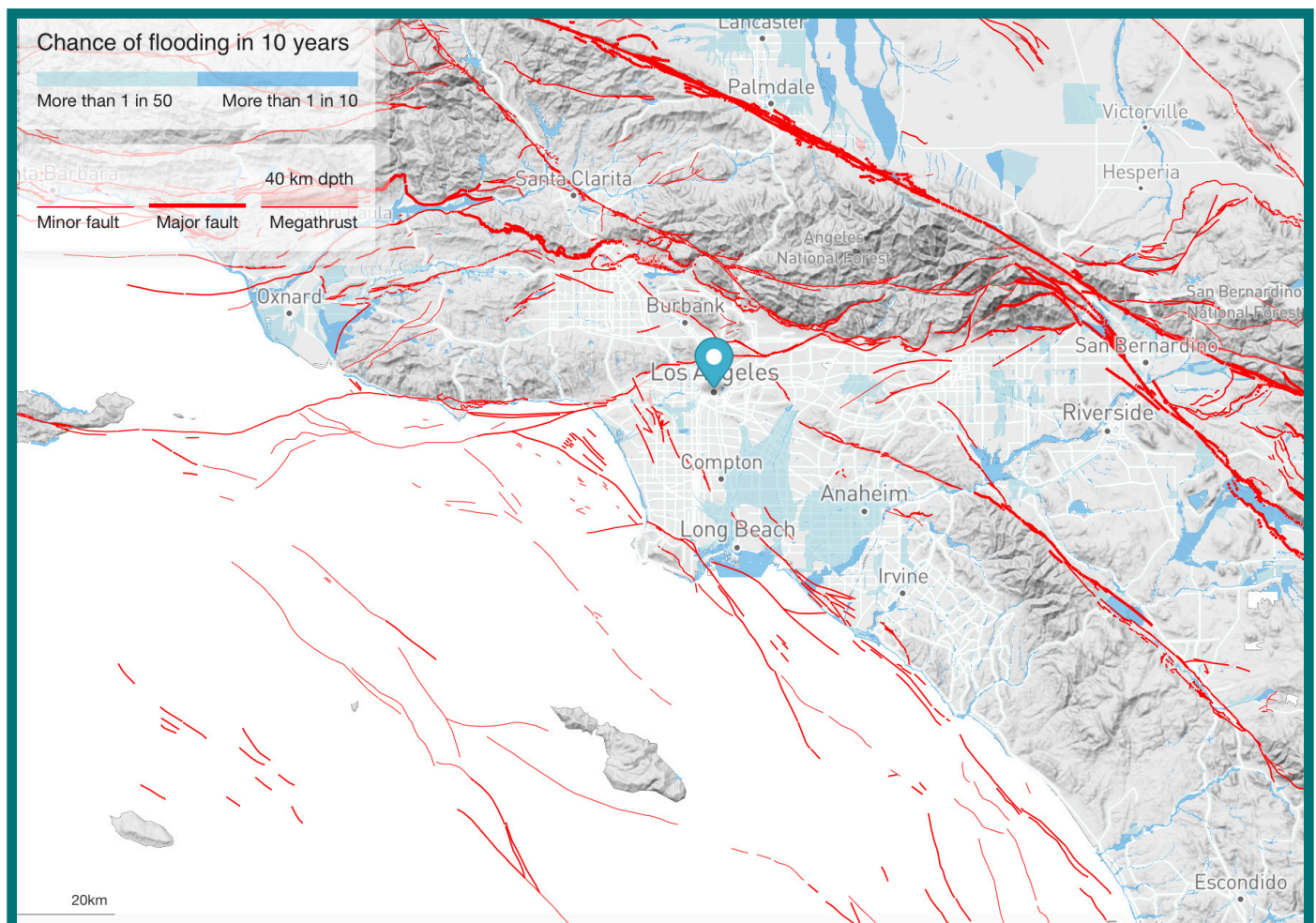


Image source: Temblor, <<https://www.temblor.net/>>.

## Wildfires



### [Getting Through It Episode #64: Wildfires and Climate Change](#)

The wildfire risk in California is obvious and increasing. We have to worry about the safety of those living near the wildland urban interface. In addition, the heavy smoke from the most intense fires is creating a risk for those with breathing impairments.

## Resources:

For more information on wildfires, the [FHSZ Map](#) shows if your parish is in one of California's 8,900 very severe hazard zones: <https://lacounty.maps.arcgis.com/apps/webappviewer/index.html?id=d2ea45d15c784adfa601e84b38060c4e>

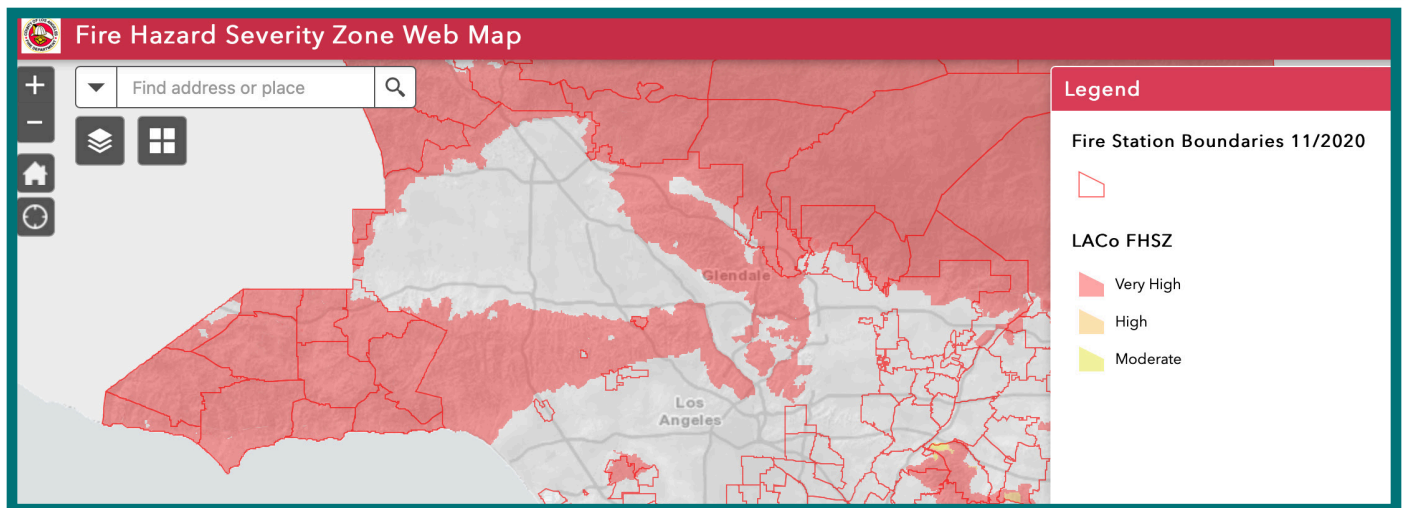


Image source: FHSZ Web Map, <<https://lacounty.maps.arcgis.com/apps/webappviewer/index.html?id=d2ea45d15c784adfa601e84b38060c4e>>.

## Assessing Your Church's Risk

Now that you have looked at your hazards, you need to look at your risks. Begin by evaluating what is at risk in the church that would potentially limit or impede the ability to provide essential services to the community.

Churches are made of many ministries, committees, programs, small groups, and teams, not to mention the buildings and properties that are the Churches physical manifestation. After a disaster strikes a church may have many assets that can help speed the recovery process, like a food pantry, but there may be no one around to facilitate the distribution of supplies.



**Task A** - For each of the following five critical assets, determine what elements exist in your organization. Check boxes if you have them, and add any that are missing.

People Onsite:

- Priests
- Other paid staff
- Volunteers
- Visitors
- School teachers/ students
- \_\_\_\_\_

Buildings:

- Sanctuary
- Parish hall
- Offices
- Storage
- Classrooms
- \_\_\_\_\_

People Offsite:

- Lay leaders
- Congregants
- Homebound members
- \_\_\_\_\_
- \_\_\_\_\_

Ministries and Programs:

- Church administration
- Building and grounds
- Music
- Christian formation
- Children's ministry
- Outreach
- \_\_\_\_\_
- \_\_\_\_\_

Church Records:

- Computers
- Office equipment
- Data Storage
- Church archives
- \_\_\_\_\_
- \_\_\_\_\_

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Now that you have identified your hazards and the levels in the Church that will be impacted as well as what assets exist in your organization (Task A), it is time to calculate what is at risk in your organization. This exercise will help you to determine what is most important to your Church so you can focus on reducing risk.

Before you begin completing the Risk Assessment table, you will need to understand the difference between the levels of impact. They are listed in order of severity:

**Slight** – limited to no disruptions or property damage;

**Mild** – a hindrance that may affect operations without shutting you down, you have no or minor damage, it may be an occurrence in your neighborhood;

**Serious** – temporary disruptions of operations or major damage to the facility, impacts are to the community; and

**Severe** – a disaster that affects an entire regional community, causing workplace disruptions and forces closure of building(s). This is an event of large proportions. It can include complete destruction, multiple injuries or deaths, and a regional event that means limited or no outside resources available for some time. Typically, in such events, this means no outside resources for at least days, often much longer.

**Task B** – Compare your identified hazards against your Church’s assets then prioritize addressing them.

1. Read through the general types of hazard events listed in the left-hand column. These are the hazards you examined in Section 2.
2. Start with the first listed disaster event, Earthquake.
3. Circle the number in each asset area to score how the hazard would likely impact your Church. You may be uncertain, but make your best guess. You can revisit this later and gather more information.
4. Complete the other rows then total your numbers for both columns and rows.

You can now see which peril you believe will have the biggest impact on your church and which aspects of your operation are most vulnerable. We will use this information in Section 3 to decide what you want in your disaster plan.

TYPE OF EVENT	ASSETS					SCORE
	PEOPLE ONSITE	PEOPLE OFFSITE	CHURCH RECORDS	BUILDINGS	MINISTRIES & PROGRAMS	
	1-Slight 2-Mild 3-Serious 4-Severe	1-Slight 2-Mild 3-Serious 4-Severe	1-Slight 2-Mild 3-Serious 4-Severe	1-Slight 2-Mild 3-Serious 4-Severe	1-Slight 2-Mild 3-Serious 4-Severe	
Earthquake	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Extreme Weather	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Flood	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Landslide	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Power outage	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Tsunami	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
Wildfire	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	
TOTALS						
PRIORITY						

## Outcomes of Session 2:

After creating and discussing this worksheet, think about which vulnerabilities your committee most wants to address?

**In the space below write the three vulnerabilities that are your highest priority:**

1.  \_\_\_\_\_
2.  \_\_\_\_\_
3.  \_\_\_\_\_

# 3.

## CREATE YOUR DISASTER RESILIENCE PROGRAM

*(one session to decide what you want to do- more as needed for each activity)*

You have already decided on scope, assessed your hazard, looked at your assets and analyzed your risk. Now it is time to create a program that will help you survive and thrive through the next disaster.

In Section 2, you compared the relative impact of the different perils. In deciding which ones you will address, you need to consider how likely each disaster might be. For instance, it is easy to imagine how a big earthquake will damage your church. But we need to remember that the level of shaking that causes the worst damage is also very uncommon. For most of southern California, the level of shaking most likely to occur in the next 30 years is about Intensity VII, a level that damages older structures but not buildings built to modern codes.

Back in section 1, you looked at the scope of the program you want to develop. Here we will give you suggestions for activities you could create. It is up to you to decide how much of this you want to undertake.

1. Communication plan
2. Record management and protection
3. Reducing vulnerability in your facility and homes
4. Supplies of water and food
5. Fire response
6. Cooling center for heat waves
7. Emergency shelter

### Communication Plan

We strongly recommend that every parish create a communication plan. In the aftermath of a disaster, people need information. They are desperate to know if their loved ones are safe, and they want to know whom they can turn to for help. During the next disaster and immediately after, is when your level of preparedness will make a difference in how you and others survive and can respond to emergencies.

Your communication plan is the first step in protecting your people, both on and off the campus. You need to know the needs before you can help.

Begin to identify how the church will account for people in your church and coordinate communication after a disaster:

### ***Discussion Questions:***

How are your staff and building occupants?

Who in your congregation needs help?

How can you do this quickly and effectively?

Can social media or texting be employed?

What works best for your church in particular?

How do you account for members not present?

How do you connect with other churches, organizations, and the larger community?

First, you will set the priorities about who is most important to talk to. Second, you will come up with a plan for how to do that. You will need two plans, one for when the communications infrastructure, phones and internet, is intact but of course will be overloaded. Then you need a backup plan for when the electricity and cell phone system go down.

One option is a congregation communication plan for immediately after the disaster, to determine the status of the community members and mobilize aid if needed. We provide a Communications Drill Template in the Appendix. This template involves forming teams of community members who live near each other and who commit to check on each other after the disaster. The communication drill, called TEXT, DON'T TALK, reminds people that at high use times like a natural disaster, it is much easier to get a text message to go through than to make a phone call. The program is based on communicating through texts. Also, if power is disrupted to the whole region, cell phone towers only have 4 hours of backup power, so the goal is to make sure the check-in is complete in under 4 hours. The Drill Template assumes you are planning for an earthquake but can be used for any disaster.

Elements of plan will include:

1. Assign tasks for post-disaster assessment and response.
2. Establish a post-disaster phone tree to ensure parishioners are okay. Connect people by where they live. Assign an able-bodied parishioner to each mobility-impaired parishioner with the task of connecting and ensuring safety after the disaster and then reporting to the Rector/safety committee.
3. Storage of plan. Primary will be a cloud website and all clergy and staff will keep a copy on their phones/computers.

Drill the communication plan. Once a year near ShakeOut (the third Thursday in October), practice connecting with each other including checking on neighbors.

## Record Management and Protection

The church has many documents that you want to protect. Some of the oldest are physical and should be stored in a secure location. Consider the risk from fire when you determine storage areas. In addition, many of the records are in digital form. This includes information like investments, bank records, and insurance records. Online records should be backed up in cloud storage and thumb drives that could be stored in other locations. For instance, the Treasurer could be given a thumb drive with backup financial information. The parish administrator and the treasurer can be asked to organize important documents which are critical for their church.

## Reducing Vulnerability

The risk we face from fires and earthquakes can often be reduced. Building codes are only as good as the code that was in place when the building was built and the degree to which it was enforced. Churches are often some of the oldest buildings in a community and therefore not to modern standards. In addition, many of the losses we suffer are to the contents of buildings and therefore not covered by codes.

We recommend two steps that can be taken. For the buildings themselves, you can evaluate its structural integrity. Find your building plans and any information about previous retrofit projects. You may want to bring in a structural engineer. You can get a referral from the Structural Engineers Association of Southern California, or the California Earthquake Authority. The biggest change to building codes in California happened in 1976, so if your buildings are newer than that, your problems should not be too significant.

The second step is to secure the contents of the buildings. This involves actions like securing bookshelves or electronics, removing heavy items from high shelves, etc. The appendix supplies a **Secure Your Space Worksheet** that will take you through the major activities. This work can be done by church volunteers or your sexton. For more information, the State has produced a guide for non-structural mitigation in schools. Churches are much like schools in their layout and this is a useful approach to think about it.

## Supplies

The point of emergency supplies is to limit dangerous situations and make life more comfortable after a disaster disrupts the normal services that we depend on for our lives.

The likely problems are:



Injuries



Damage to your house that makes it difficult to stay



Disruption of utilities



Damage to transportation systems that disrupt supplies

You need to evaluate what supplies you already have, who depends on you, and what is important to you. (If you can't survive without your morning coffee, you may need to plan for Starbucks being closed for a week.) How much you do has to be an individual choice that you make to be better prepared for what life in earthquake country will throw at you.

This is not about putting supplies out in an emergency bin and ignoring them until after they have gone bad. Rather, we encourage you to consider how you can use your existing supplies in a way that they get used and renewed on a regular schedule.

**Water** is the most important supply as many disasters can affect the water supply. However, water can only be stored for a limited time before it is no longer considered safe for consumption. Discuss how you want to supplement the water supply at the church. When you do this, consider how many people are at the church on an average day and how many could be at the church after a disaster. If you use bottled water, buy ahead and then rotate the bottles so that the new delivery is put in storage and the stored water is brought out to be used. This way, you always have a several week supply on hand. The water in your hot water heater is another resource. Make sure your water heater is secured to a wall so that it will not be damaged in earthquake shaking.

**First aid Supplies.** You probably already have first aid supplies. Review what you have, how it is stored, and who knows where it is stored. Refresh or add to the supplies as needed. Set up a schedule to review the supplies at least once a year.

**Food.** Only consider storing food if you have a significant population likely to be onsite during the day. If you have a food security ministry, you probably already have enough food on hand. Food should be liked by your people, complement your pantry and not thirst making. Food supplies in southern California could be low for a few weeks when the earthquake disrupts transportation.

Consider encouraging food storage by your congregation at home for disaster preparedness that also

supports your food ministry. In the Appendix, the *Food Ministry Program handout* describes this plan in more detail, including suggestions for foods to be included. In short, members are asked to buy a small supply of emergency food to keep at home. Every year (perhaps with ShakeOut in October), they bring in last year's supplies to donate to the food ministry (if you don't have an outreach program in your church, you could donate to a neighborhood food program). You then encourage them to buy a new supply then to keep at their homes for a year and donate the next year.

Special note for Day and Elementary Schools: if you operate a school, you need to think about supplies for the children if a disaster means they cannot be picked up. At the beginning of the school year, ask each family to bring in a can of fruit (sugar and liquid and kids like it). Keep it as an emergency supply and give it to a food bank at the end of the year. You can also ask families to bring in a comfort bag for their child, including a picture of their family, and an old toy. (Children can regress under stress and want their old toys.)

## Fire Response

Wildfires are increasing in number and severity in California because of climate change. Few church buildings are in the wildland-urban interface and directly at risk from wildfires, but many of us have parishioners who are at risk.

### **Discussion Questions:**

Can you help your parishioners if they are evacuated?

Do you want to plan how you would find them a place to stay?

While only some of us face the possibility of evacuation, we all will be affected by extreme smoke events. The smoke that covered the Bay Area from fires in 2020 caused a significant health crisis across the region. As climate change progresses, we know that this is an event likely to affect all of us. Churches could help their members by knowing who in the congregation suffers from breathing issues, helping vulnerable people with breathing filters and air conditioning, providing food or shopping services to vulnerable people so they can stay indoors with air conditioning, and providing shelter with air conditioning and filtered air to vulnerable people.

## Cooling Centers for Heat Waves

Extreme heat days are becoming more common and the extremes are increasing. Shelter during the day for people without air conditioning could be life saving. If the church has solar power, this could be even more significant if the power grid fails during extreme heat. Consider how the church could welcome parishioners in these times.



## Emergency Shelter

Churches can provide emergency shelter during various disasters

If you want to create a plan for shelter, these are factors to consider:

### **Discussion Questions:**

Is your building structurally sound? You don't want to plan to be an earthquake shelter if your building is likely to be damaged.

Do you have solar power? How reliable is your electricity?

What facilities can you provide? (Kitchen, sanitation, playrooms for children, etc.)

If you provide these types of services, you may be eligible for FEMA reimbursements. It is critical that you keep clear records of what you spend, separate from regular church expenses to receive any reimbursements.

### **Outcomes of Session 3:**

Which programs are we going to take on to improve our church's resilience? These programs are not limited to the seven listed above. If your committee was able to come up with other programs that you think would help your church during and after a disaster, include them here.

**In the space below note who will take the lead in developing each program at your church:**

**Plan**

**Lead (First name, Last name)**

Communication Plan

Record management and protection

## 4.

# KEEP IT GOING

You have now created a plan. For it to be useful to you when the disaster actually comes, you will need to keep it fresh and relevant. This implies a program that practices the pieces of your plan and updates the information as people join or leave the congregation. Remember, resilience is an ongoing commitment. Regular renewals of the drills, disaster committee members and the plan are necessary.

### Practice Your Communication Drill

In Section Three you created a communications plan, grouped congregants, assigned team leads (and subleads if needed), and decided how everyone will check in with each other.

We encourage you to practice your communications program once a year, preferably in October. This coincides with the annual ShakeOut earthquake drill held in many schools and businesses and thus is a time when people are already thinking about earthquakes. It is also the time when most congregations are holding their Stewardship Drive. Preparing for the inevitable disasters is part of good stewardship of the church's resources.

This drill should have everyone that is a part of the program participate and check in with their team leads as if an earthquake or other disaster had just occurred. Consider including Drop Cover Hold On as a part of your drill, the ***Drop Cover Hold On handout*** is included in the Appendix.

The goal is to have everyone checked in and accounted for within 4 hours of the start of your drill. To make sure that all parts of your plan are working as intended, randomly assign specific participants to act injured, out of communication, or similar such that their team lead would go and physically check on them.

Once everyone in the drill has been accounted for and all the "injuries" have been addressed, follow up with all the participants and begin taking feedback and brainstorming improvements.

### Maintaining Membership Information

You can use the annual drill to make sure you have updated membership information. Assign someone to be responsible for contacting new members and inviting them to participate. Examine your communication teams and adjust as needed for new members.

## Looking Forward

We hope that we will never have to use these plants for a real disaster, but we know that eventually some of us are going to be dealing with exactly that. The real thing will not be the same as what you planned for, but the planning process will have made you better equipped to handle what comes.

And you will not be alone. Your Diocese and fellow parishes will be with you to help. There will also be government aid, but you will need to be prepared to request it. Following federally declared disasters (most large disasters trigger a federal declaration), nonprofits with disaster-related damage should contact the state as soon as possible to find out how to file a request under FEMA's PA program. *The initial request must be filed via your state's emergency services agency (CalOES in California) within 30 days of the date your county was designated as a federal disaster area.*

To ensure reimbursement costs that are eligible under FEMA programs are captured, it is important to begin documenting potentially eligible costs immediately following the event. Eligible items such as staff overtime, contracted labor and other costs associated with debris removal and emergency protective measures can be difficult to reconstruct at a later date, and eligible funding can be lost.

Key actions:



Photo documentation of all damage prior to beginning clean-up.



Careful documentation of debris and debris removal. These costs are difficult to recoup if documentation is not clear prior to clean-up activities.



Debris removal contracts/contractors must separate hazardous materials to remain eligible for reimbursement.

## Outcomes of Session 4:

**Determine how your committee will continue these projects and turn them into ongoing programs:**

**Ongoing Program**

**Lead (First name, Last name)**

Communication Plan

Maintaining membership information

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# Appendices

**Appendix A:**

Sample Email for Congregation

**Appendix B:**

Earthquake Communications Drill for Churches “Text, Don’t Talk”

**Appendix C:**

Secure Your Space

**Appendix D:**

Food Ministry Program

**Appendix E:**

Drop Cover Hold On



# Sample Email for Congregation

Our church is developing a disaster resilience and response program and we would like you to be a part of it. In this program, we will be contacting all our parishioners after a disaster to determine if you need help or if you are available to help others. If you do not want to be included, please let us know by responding to this email.

Our goal is to be able to help each other in a time of disaster. To do that, we need to understand the needs and know how to connect in the crisis. We therefore want to get some information from you and plan to practice how we would respond on a regular basis.

Below is a questionnaire we hope you will complete and return to the church office by date. This will help us know what particular issues you and your household face, as well as determine what skills we have to help each other.

---

I (we) would *not* like to be included in this program

## Members of your household (including yourself):

**Name (and Age)**

**Daytime location (work/home/school/**

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

**Special Needs:**

Does someone in your household have asthma or similar breathing problems that could be exacerbated by wildfire smoke? \_\_\_\_\_

Does someone in your household have mobility limitations? \_\_\_\_\_  
\_\_\_\_\_

Does someone in your household depend upon electricity for life-sustaining equipment? \_\_\_\_\_  
\_\_\_\_\_

Are there any other health needs to be aware of in the event of a disaster?  
(Specific medication storage, etc.) \_\_\_\_\_

**Skills:**

In the event of a disaster what skills would you or a member of your household be able and willing to share with our community? Do you or a member of your household have:

First Aid Certification (Name[s]) \_\_\_\_\_

CPR Certification (Name[s]) \_\_\_\_\_

Medical Training (Name[s]) \_\_\_\_\_

Search and Rescue training (Name[s]) \_\_\_\_\_

Ham Radio Operation (Name[s]) \_\_\_\_\_

Other Useful Skills:

Skill \_\_\_\_\_ (Name[s]) \_\_\_\_\_

Skill \_\_\_\_\_ (Name[s]) \_\_\_\_\_

Skill \_\_\_\_\_ (Name[s]) \_\_\_\_\_

For some skills (e.g., medical training), you may be obliged to report to work in the event of a major disaster. Please let us know the limitations on your availability.

Thank you for returning this completed form by     date    . We will schedule an educational session and a communications drill to practice     date    .



# Earthquake Communications Drill for Churches “Text, Don’t Talk”

## **Goal:**

To develop, implement, and drill a plan to help your congregation be better prepared for an earthquake to foster greater connection and capacity for response and recovery.

## **Instructions for Church Leaders:**

In the aftermath of a disaster, people need information. They are desperate to know if their loved ones are safe, and they want to know whom they can turn to for help. Your Church can be that resource for your members and for your community.

This exercise is for you to talk through and decide how you are going to contact the people you need to contact after a disaster and how you will organize and prioritize them.

You will need two plans, one for when the communications infrastructure is intact but of course will be overloaded. Then you need a backup plan for when the electricity and cell phone system go down.

Create a communication plan for immediately after the earthquake, to determine the status of the community members and mobilize aid if needed.

Form teams of church members who live near each other and who commit to check on each other after an earthquake. The mantra TEXT, DON’T TALK, reminds people that at high use times like a natural disaster, it is much easier to get a text message to go through than to make a phone call. The program is based on communicating through texts. Also, if power is disrupted to the whole region, cell phone towers only have 4 hours of backup power, so the goal is to make sure the check-in is complete in under 4 hours.

## **Creating Your Plans:**

1. Create teams of church members to figure out who each individual will need to communicate with after an earthquake. After an earthquake, they will text a team leader or a sub- team leader to indicate that they are okay. The sub- team leaders will then text the team leaders to indicate who on their teams are okay. To create the teams, answer the following questions:

- a. How many people will make up the teams? (e.g. 100 people broken up into 12 teams of ~8, etc.)

b. How will team members be decided? (e.g. geographical distance of homes, etc.)

c. Who are the team leaders?

Contact numbers for designated church leaders:

- |          |          |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

d. If applicable, who are the sub- team leaders?

Contact numbers for designated church leaders:

- |          |          |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

2. To be fully prepared as a community, it is important to answer the following questions to serve those most vulnerable in your organization and what happens if someone is not okay:

a. What do you do if someone doesn't respond?

(e.g. Can you drive or walk to their house to check on them? How do you pass on the message that you haven't heard from someone?)

b. What do you do if someone is injured?

(e.g. How will the team leaders coordinate medical assistance? Are medical supplies readily available to your church?)

c. Who manages the database of who is okay and who isn't? Is this a responsibility of the team leaders? Someone at the church?

d. Who will check on members of the community without text- capable phones? How?

e. Who will check on elderly members and other members who aren't able to be mobile?

3. Earthquakes can happen at any time of the day or week. Answer the following questions to anticipate



what the situation will be at different times of an earthquake event:

- a. How will the situation be different if an earthquake takes place during the week/ weekend/ Sunday?
- b. How will the situation be different if an earthquake takes place in the morning/ afternoon/ evening?

4. The program is based on communicating through texts. If power is disrupted to the whole region, cell phone towers only have 4 hours of backup power, so the goal is to make sure the check-in is complete in under 4 hours. If the check-in isn’t completed during this time or there are some other problems, set up an emergency back-up plan by answering these questions:

- a. Where will team leaders meet physically as an emergency meeting location? How will they get there?
- b. Will this emergency meeting location serve any other emergency purpose?

After answering these questions, you should have team members, team leaders, sub-team leaders, and an emergency meeting location assigned. Make sure phone numbers are shared amongst team members and leaders. Leaders should set up an editable database of phone numbers so members can easily access anyone’s information need-be. It could help to have connections to the fire department. See if you can share your plan with your local fire department and get them to participate in the practice drill.

### **“TEXT, DON’T TALK” Instructions for Drill Participants:**

You will be assigned to a team, and potentially a sub-team, depending on how many people are participating in this drill. When an earthquake happens, we are asking you to first, stay safe by practicing Drop, Cover, Hold On. After the earthquake is over, check your house for damage. Then, initiate the call down procedures (in the practice section below), to collect information to let the church know if anyone needs help.

1. During the earthquake, Drop, cover, hold on.  
(This is described in detail on <http://www.earthquakecountry.org/step5/>)
2. After the earthquake, check your family and house for injuries or damages.  
(This is described in detail on <http://www.earthquakecountry.org/step6/>)
3. Check on your team through text message
  - a. First text your sub-team leader that you are okay

- b. If you are the sub-team leader, reply to your members to acknowledge receipt.
  - i. When you have heard from all of your sub-team members and have replied, text your team leader
  - ii. OR If you have not heard from all of your sub-team members, walk/drive (depending on the condition of the street) to their house and determine if they are okay, and send a text to your team leader about the status of your sub-team
- c. If you are a sub-team member and have not heard back from your sub-team leader, walk/drive to their house (or whatever procedure you have decided upon) and determine if they are okay
- d. If you are a team leader, reply to your member to acknowledge receipt.
  - i. When you have heard from all of your sub-team leaders and have replied, text your designated church leader
  - ii. OR If you have not heard from all of your sub-team leaders, walk/drive (depending on the condition of the street) to their house and determine if they are okay, and send a text to your designated church leader about the status of your team

# Secure Your Space Worksheet

Securing Building (Non-Structural) Items

DATE: \_\_\_\_\_

BUILDING: \_\_\_\_\_

ROOM: \_\_\_\_\_

DO-IT-YOURSELF (DIY)						
ITEM	# of ITEMS	ASSIGNED TO	COMPLETION DATE	BUDGET	COMMENTS	SOLUTION
Computer						Strap or Velcro® monitor/ laptop to desk, latch desktop to desk
Tall Shelving						Attach to wall with brackets or flexible fasteners
Tall File Cabinets						Secure to wall, install cabinet latches to drawers
Equipment, on tabletop						Strap to tabletop
Equipment, on floor						Secure to wall/floor
Kitchen Cabinets						Install latches to cabinets
Drawers						Install latches to drawers
Windows/stained glass						Install protective film covering
Ceiling fans & Lights						Restrain/Secure ceiling fans and lights with safety cables
Refrigerator						Attach to wall with brackets or flexible fasteners
Water heater						Strap—wrap 1 1/2 times, bolt to studs
Partition (cubical) or Freestanding Walls						Bolt to structure

NEED ASSISTANCE							
ITEM	# of ITEMS	ASSIGNED TO	COMPLETION DATE	BUDGET	COMMENTS	SOLUTION	
Suspended Light Fixtures						Anchor and brace	
Suspended T-Bar Ceilings						Anchor and brace	
Exterior Signs						Reinforce/bolt to building	
Roof Parapets						Reinforce, bolt to roof	
Piping						Anchor and brace, especially between floors	
Fire Sprinkler Piping & Heads						Anchor and brace, especially between floors	
HVAC Equipment & Ducts						Anchor and brace	
Propane Tank						Bolt, secure in place	



# Food Ministry Program

If you have a food ministry at your parish, the following program developed at St. James in Pasadena is a helpful guideline to determine how to connect the food locker to disaster preparedness.

For parishioners, we want you to buy a set of supplemental food supplies that you will store for one year. At the end of the year, you will donate the supplies to the Food Locker and buy another set. Under this Earthquake Food Program: You always have extra food that could make life after the earthquake more comfortable for you and your family and you keep the receipt and get an extra tax deduction.

An important part of being prepared for earthquakes and other potential disasters is maintaining some emergency food supplies. The evolution of food distribution since the advent of the Internet has greatly reduced the number of food warehouses in southern California. A very large earthquake, especially on the San Andreas Fault, has the potential to disrupt transportation systems and create food shortages that could last for weeks. Some people store emergency rations but these need to be thrown away after 5 years and are not something that anyone wants to eat outside of an emergency situation. Regular canned goods only last for two to three years. This program keeps usable food in your kitchen *and* keeps the Food Locker stocked. To distribute the food intake to the Locker over time, we are asking you to make your annual donation (and the purchase of your next set) in the month of your birthday.

The primary purpose is to provide extra food for use at home. If you are unable to stay in your home, food will be supplied to the evacuation centers. But the most likely scenario is that your home will be habitable but you will not have water, gas or electricity and local stores will not be able to restock their supplies. So you are looking for what items will supplement what is in your (melting) freezer and pantry. You need to evaluate how many people are in your home and how much food you tend to stock to determine how much food you should keep in your emergency supplies.

In deciding what should be in your supplies, remember:

1. Water is your most important resource.
2. Fueling your body during an emergency is different from your everyday diet. You will likely expend more energy than you normally would, so include nutrient-dense, high-protein foods. Also include fiber to keep your diet normal.
3. Keep in mind family food preferences (to the extent you can). If you don't like tuna today, it may not be the best choice even though it's "good protein". This is particularly true for children, since

food can also be a source of comfort.

4. Dried and salty food (like nuts and beef jerky, or dehydrated items like beans) increase the need for water. Be aware of that as you plan. When stocking canned soups or veggies, choose the low-sodium variety. Canned fruit is one example of a food that can also provide extra “water”. Don’t forget a can opener!

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### Sample Earthquake Food Supplies Package:

*(This sample is for two people for 5-7 days)*

- 10 – 14 cans (5 – 7 per person) of any combination of the following: Canned tuna, canned chicken, soup (reduced sodium, NOT condensed), stew, reduced sodium beans.
- 1 16 oz jar peanut butter (If you are allergic to peanuts, substitute another 5-7 cans per person of tuna, chicken, etc.)
- 10 – 14 cans fruit (5-7 per person)  
(provides added liquid)
- 1 package (10 packets) instant oatmeal
- 1 2 lb bag rice  
(brown rice preferred for fiber)

If you have a fully stocked freezer and a good supply of canned goods, you could cut back some. If your kitchen tends to be bare and you rely on the neighborhood take-out on a regular basis, this should be considered a bare minimum.

In addition, although most of these items do not have a shelf life in excess of one year, so they probably are not items you would store for a year and then donate to the Food Locker, you should try to keep on hand in your pantry extra supplies of the following:

- Nutrient-dense snack foods.  
Examples: Dried fruit, crisp whole-grain crackers, trail mix, nuts.
- Electrolyte sources to ensure hydration when water is limited, such as sports drinks and gatorades.
- Comfort foods for your family’s psychological well-being. Examples vary depending on your family, but could include instant coffee, tea, fruit juice, chocolate, hard candies... even martini olives! Whatever might be specific to your family.

In addition, you will want to have the following available, but could be part of your regular home supplies:

- Vinegar (White Distilled) for cooking, preserving, first-aid, cleaning.
- Basic condiments (salt, pepper, sugar, honey)
- Vitamins to help replace nutrients you would have consumed in a normal diet.
- Water: 1 gallon per person per day for drinking. (Additional for hygiene.)



# Drop, Cover, Hold On

## What To Do During an Earthquake:

One of the cornerstone activities of the ShakeOut (<https://www.shakeout.org/>) is that participants are asked to perform the recommended personal-protective action during an earthquake: Drop, Cover, and Hold On. Federal, state, and local emergency management experts and other official preparedness organizations all agree that Drop, Cover, and Hold On is the appropriate action to reduce injury and death during earthquakes. It is the safest action to take during ground shaking. There are 3 steps:

- **DROP** to the ground (before the earthquake drops you!)
- Take **COVER** by getting under a sturdy desk or table
- **HOLD ON** to it until the shaking stops.

If there isn't a table or desk near you, drop to the ground and then (if possible) move to an inside corner of the building. Be in a crawling position to protect your vital organs and be ready to move if necessary, and cover your head and neck with your hands and arms. Do not try to run to another room just to get under a table - you are more likely to be injured if you try to run during strong shaking. The main point is: Even if you cannot Drop, Cover, and Hold On, you should immediately take action to protect your head and neck.

Earthquakes occur without any warning and may be so violent that you cannot walk or you therefore could likely be knocked to the ground where you happen to be. You will never know if the initial jolt will turn out to be the start of a large earthquake.

## What NOT to do:

DO NOT get in a doorway! An early earthquake photo is a collapsed adobe home with the door frame as the only standing part. From this came our belief that a doorway is the safest place to be during an earthquake. In modern houses and buildings, doorways are no safer, and they do not protect you from flying or falling objects. Get under a table instead!

DO NOT run outside! Trying to run in an earthquake is dangerous, as the ground is moving and you can easily fall or be injured by debris or glass. Running outside is especially dangerous, as glass, bricks, or other building components may be falling. You are much safer to stay inside and get under a table.

DO NOT believe the so-called "triangle of life"! In recent years, an e-mail has circulated which recommends potentially life threatening actions, and the source has been discredited by leading experts.



