Tsunami information and evacuation zones for the Waimakariri District









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### FIND YOUR HOUSE AND TSUNAMI ZONE ON OUR DIGITAL MAP AT: waimakariri.govt.nz/tsunami

## WHAT IS A TSUNAMI?

### The entire Canterbury coast including Waimakariri is at risk from tsunamis.

A tsunami is a series of powerful waves caused by a sudden movement of the sea or lake floor, or by something falling into water. Most tsunamis are caused by underwater earthquakes, but they can also be caused by volcanic eruptions or underwater landslides.

A tsunami consists of many waves or surges that arrive over several hours or even days. The first wave is often not the largest – the largest wave can arrive hours after the first wave.

When they reach shore, tsunami waves are often no higher than normal ocean waves, but they are more dangerous because they have much more water behind them so can move a long way inland very fast. Fortunately, most tsunamis we experience are not big enough to flood land, but they can cause strong and unpredictable currents and surges around the coast, which can be dangerous for people in or around the water.

Occasionally, perhaps a few times in your lifetime if you live in Canterbury, a tsunami will be big enough to flood some land.

The biggest tsunami threats for Waimakariri are those created by large earthquakes on the Hikurangi or Kermadec subduction zones (to the east and north of the North Island) or by large earthquakes off the coasts of Central or South America.

The place where a tsunami starts will determine how much, and what kind of warning we get.

## **NORMAL VS TSUNAMI WAVES**



## TSUNAN VARNINGS

Don't wait to act, if you experience any of these warnings evacuate immediately inland.

## **NATURAL WARNINGS**

Official warnings will normally be issued

**OFFICIAL WARNINGS** 

Waimakariri District Council and/or

emergency services.

by Civil Defence Emergency Management,

Official warnings may arrive from

a variety of sources including:

Some tsunami sources could arrive in minutes and there won't be time for an official warning. It is important to recognise natural warning signs and act quickly.

If you are in the red or orange evacuation zones, or near the shore and experience any of the following warnings, don't wait evacuate immediately.



Feel a long earthquake that lasts more than a minute or a strong earthquake that makes it hard to stand



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See a sudden rise or fall in sea level

Hear loud or unusual noises from the sea (like a jet plane or train)



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Radio and television

**Emergency Mobile Alert** 



Council website waimakariri.govt.nz



return.

Social media

Coastal warning sirens

**Emergency services** 

going door-to-door

when necessary

If there is an announcement to

evacuate the zone you are in, follow the

instructions immediately. Stay out of

the evacuation zone until you are told

by an official source that it's safe to

## COASTAL WARNING SIRENS

There are three siren locations in the Waimakariri District, they are stationed in the coastal communities at The Pines Beach/Kairaki, Woodend Beach and Waikuku Beach.

If you hear the coastal warning sirens, comply with any of its voice messages and check the sources listed in this booklet for further information.

In some tsunami scenarios there won't be sufficient time to activate the sirens.

# DON'T FORGET Long or Strong **GET GONE**

## TSUNAMI EVACUATIONS

Following a long or strong earthquake or an official evacuation warning - head immediately inland until you are outside of the tsunami evacuation zones.

# DON'T FORGET Long or Strong GET GONE

## WHERE YOU'LL GO:

If you have a household evacuation plan (see page 11), travel to your pre-arranged location that is outside of the evacuation zones. Use your pre-planned route when possible.

If you don't have a home evacuation plan already in place, your priority is to make sure you are outside of the tsunami evacuation zones. In Waimakariri, this generally means you should be west of State Highway One. You may wish to travel inland to a nearby town such as Rangiora to wait for the official all-clear.

The Council will open Civil Defence Centres for those evacuating. Check the Waimakariri District Council website or Facebook page for their locations.

## HOW YOU'LL GO:

If you're able to, walk or cycle to evacuate. Evacuating on foot or bike could make your evacuation faster.

If you have to drive, plan to take extra passengers with you. Have a chat with your neighbours to see if they need a ride or help to evacuate. Carpooling reduces the number of cars on the road and helps everyone evacuate faster.

Public transport, like buses, may not be operating during an evacuation. If you normally use public transport to get around, plan other options to evacuate.

## WHAT TO TAKE:

You may be asked to stay out of the evacuation zone for many hours.

Take a grab bag with anything you urgently need and can easily carry. This could include medicine, glasses, baby supplies, pet food and family documents.

Plan to take your pets and anything they need. It's a good idea to talk with neighbours or nearby friends to see if they could take your pets if you're not at home.

Secure your home as you normally would when leaving.

## **STAY INFORMED**

Information could change, so make sure you have a way to stay up-to-date with official information, like a portable radio, or your mobile phone.

Official information will be available on:

- Council website <u>waimakariri.govt.nz</u>
- Council Facebook page facebook.com/WaimakaririDistrictCouncil
- · Compass FM 104.9 FM
- RNZ National Radio 101.7 FM or 675 AM
- Newstalk ZB 100.1FM or 1098 AM
- More FM 92.1 FM, 94.9FM or 99.1 FM

Do not return home until you receive the all-clear from an official source.

## RED, ORANGE & YELLOW ZONES

### Waimakariri has three distinct tsunami evacuation zones.

There is no one tsunami that would inundate an entire zone, and most tsunamis we will experience will only inundate a small amount of a zone, if any at all. These zones represent an 'envelope' around many different possible extreme tsunami scenarios.

## **RED ZONE**

This is an area that is most likely to be affected by a tsunami. It includes estuaries, rivers, beaches and harbours. A tsunami of any size could cause strong currents and surges in the water. You can expect to evacuate the red zone several times in your lifetime.

#### You should leave this zone immediately, if:

- You experience a long or strong earthquake
- You see sudden sea level changes or hear unusual noises coming from the sea
- You receive an official warning from Civil Defence Emergency Management

## **ORANGE ZONE**

This area is less likely to be affected by a tsunami than the red zone. It includes areas on land that could be flooded in a large tsunami. You can expect to evacuate the orange zone a few times in your lifetime.

#### You should leave this zone immediately, if:

- You experience a long or strong earthquake
- You see sudden sea level changes or hear unusual noises coming from the sea
- You receive an official warning from Civil Defence
  Emergency Management

## **YELLOW ZONE**

This is an area that is less likely to be affected than the red or orange zones, but could be flooded or isolated in a very large tsunami. It is possible this zone will be evacuated in your lifetime, however it's unlikely.

You do not need to leave this zone if you feel a long or strong earthquake.

#### You should leave this zone immediately, if:

• You receive an official warning from Civil Defence Emergency Management.

Note: In most other parts of New Zealand, yellow zones need to be evacuated in a long or strong earthquake. You should check local tsunami evacuation zones when spending time on the coast.

## NO ZONE

We do not expect to ever evacuate the area outside of the three evacuation zones due to the risk of a tsunami.

## If you're in this area:

- You don't need to evacuate in a long or strong earthquake
- You don't need to evacuate if you hear the warning siren system
- You don't need to evacuate during an official tsunami warning from Civil Defence Emergency Management

You may wish to open your home to family or friends who need to evacuate from a tsunami evacuation zone.



# **BE PREPARED**

The most important part of being prepared is discussing the plan with the household and people you care about. Everyone should know what to do in case of a tsunami.



Know the tsunami risk for where you are. Search for your address online at waimakariri.govt.nz/tsunami



Know the natural warning signs (a long or strong earthquake, a change in sea level or a strange noise from the ocean).



Have an evacuation plan for your household, including pets. Think about where you would go and, if possible, make arrangements now with family or friends who live outside the tsunami zone to stay with them if you need to evacuate.



Think about what your family would do if it happened during working hours or when the kids are at school. Do you know your school or preschool's plan?



## Plan and practice your

evacuation route. How will you travel? Walking or cycling may make your evacuation faster. Taking extra passengers or carpooling with neighbours can reduce the number of cars on the road and help everyone evacuate faster.

Check <u>waimakariri.govt.nz/</u> <u>tsunami</u> to see if your area has a community response plan.

Work or spend time in Christchurch or Hurunui? -Familiarise yourself with the tsunami evacuation zones on their council websites.

Have a getaway kit or grab bag ready with your essentials in case you need to evacuate.

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## OUR FAMILY EVACUATION PLAN

## **WHO IS THIS PLAN FOR?**

### WHERE WILL WE MEET?

Where will you go if you have to evacuate? Make sure it is outside of all tsunami evacuation zones. How will you get there?

### WHAT WILL WE TAKE?

Do you have supplies in a grab bag in case you need to leave in a hurry? Does anyone rely on mobility devices, prescription medicine or other special equipment?

### WHO WILL PICK UP THE KIDS?

If it's inside the evacuation zones, does the school or day care centre have an evacuation plan? If you are not able to pick children up, who will?

## WHAT WILL WE DO WITH THE PETS?

Your animals are your responsibility, so make sure you include them in your emergency planning. Do you have someone to collect and look after your animals if you can't get home?

### ANYONE ELSE WHO MIGHT NEED HELP?

Are there any nearby friends, family or neighbours who might need your help to evacuate?

Visit <u>getready.govt.nz</u> for more steps you can take to be prepared.







waimakariri.govt.nz/tsunami