

MILTON, TAIERI MOUTH & WAIHOLA

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# Bruce Community Response Plan



**Emergency  
Management Otago**  
Te Rākau Whakamarumarū Ōtākou



Clutha District Council

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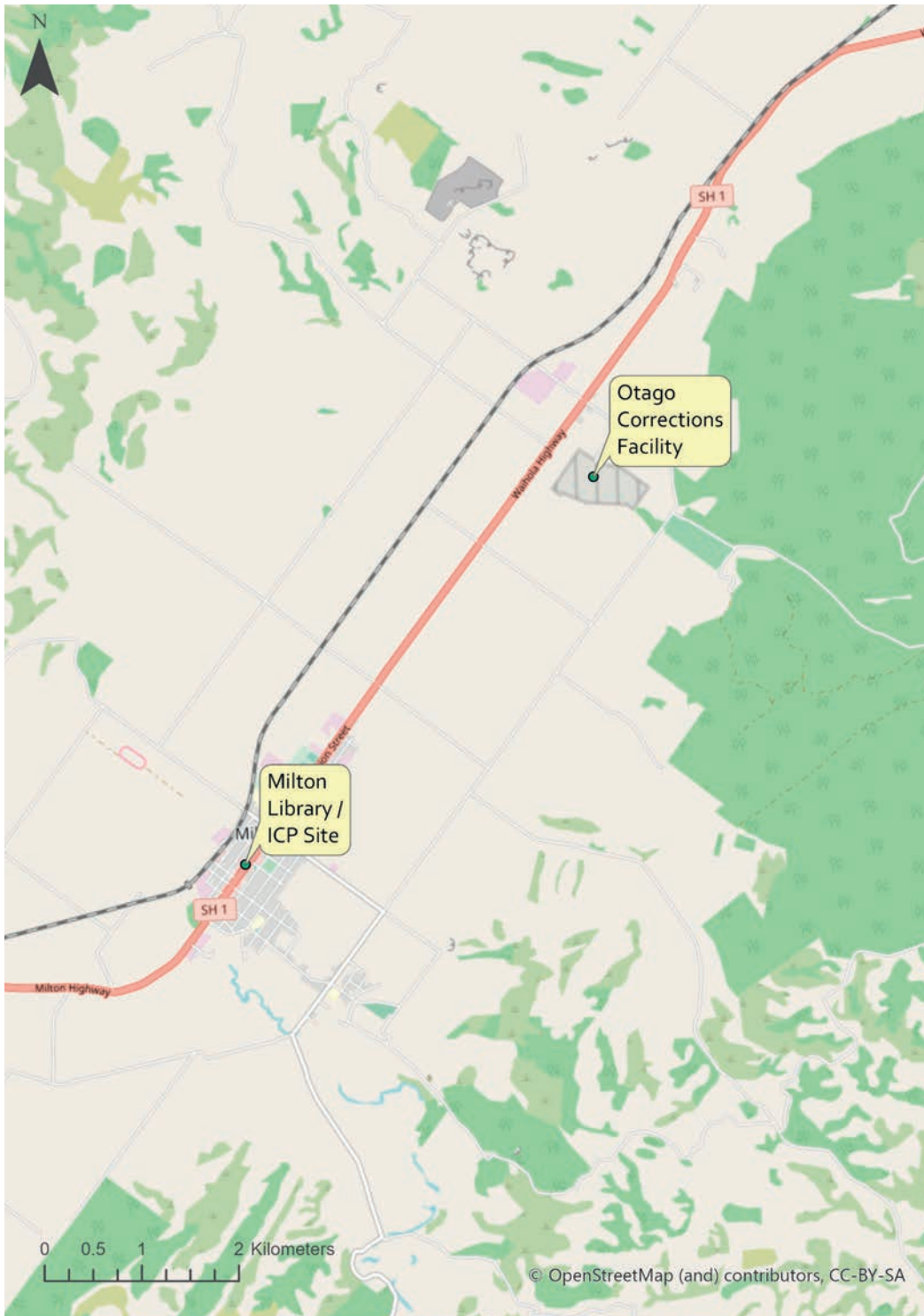


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# get ready...



## MILTON Milburn Area Map



The Bruce (Milton, Taieri Mouth, Waiholo) flyers are circulated to all members in the community to ensure you can respond and support each other quickly

# get thru...





## WAIHOLA Township Map



# get thru...



TAIERI MOUTH

## Township Map





## THE KEY HAZARDS IN BRUCE COMMUNITY

Earthquake // Tsunami // Flooding // Wildfire  
Major Storms // Snowstorms // Accident



## Earthquake

New Zealand lies on the boundary of the Pacific and Australian tectonic plates. Most earthquakes occur at faults, which are breaks extending deep within the earth, caused by movements of these plates.

There are thousands of earthquakes in New Zealand every year, but most of them are not felt because they are either small, or very deep within the earth. Each year there are about 150 – 200 quakes that are big enough to be felt. A large, damaging earthquake could occur at any time, and can be followed by aftershocks that continue for days, weeks or months. [www.geonet.org.nz](http://www.geonet.org.nz)



## Tsunami

Tsunami can be generated by either near or distant source earthquakes. A near source earthquake you will feel, a distant source one you will normally be notified of via media, your local coordinators, emergency services and you will usually have enough time to move inland to

family and friends away from the area. However, a near source tsunami will require immediate action. For a near source tsunami there may only be a few minutes warning. If your community is at risk of a tsunami you will have your evacuation point indicated in your Community Plan.

# get ready...



## Flooding

Floods can cause injury and loss of life, damage to property and infrastructure, loss of stock, and contamination of water and land.

Floods are usually caused by continuous heavy rain or thunderstorms. A flood becomes dangerous if:

- the water is very deep or travelling very fast

- the floods have risen very quickly
- the floodwater contains debris, such as trees and sheets of corrugated iron.

Getting ready before a flood strikes will help reduce damage to your home and business and help you survive. [www.water.orc.govt.nz](http://www.water.orc.govt.nz)  
[www.envdata.es.govt.nz](http://www.envdata.es.govt.nz)



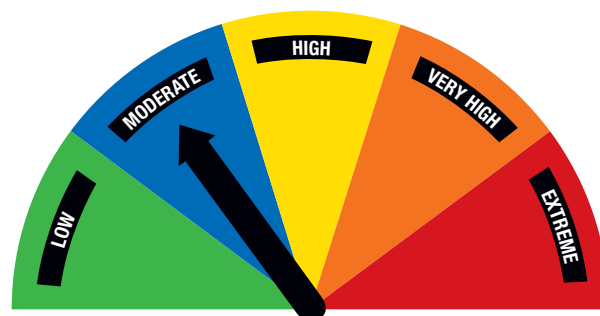
## Wildfire

Although there are many benefits to living in the country, rural property owners face a higher risk of fire than city dwellers.

If a fire starts it may not be detected as quickly and emergency services take longer to respond because of greater travel distances.

For information on fire danger, fire season status and requirements for fire permits visit [www.fireandemergency.nz](http://www.fireandemergency.nz)

### FIRE DANGER TODAY



## Major Storms / Snowstorms

Major storms affect wide areas and can be accompanied by strong winds, heavy rain, thunder, lightning, tornadoes and snow. They can cause damage to property, infrastructure, affect crops and livestock and disrupt essential services.

Severe weather warnings are issued by the MetService and available through the broadcast media, by email alerts, and online at [www.metservice.com](http://www.metservice.com)



## Road Transport Crashes

Otago's topography is predominantly flat to rolling however there are some mountainous areas throughout the region making for challenging road alignments and increased exposure to severe weather events such as strong winds, ice, snowfall and heavy rain events. Our popularity as a tourist destination and that the limited routes in and out

of the region are highly susceptible to periodic closure due to natural hazards (snow, flooding, landslip) all contribute to the challenges surrounding the management of transportation in our region. The New Zealand Transport Agency (NZTA) operates the state highways and local authorities operate the public local roads. [www.nzta.govt.nz](http://www.nzta.govt.nz)



# get ready...



NEVER HAPPENS? HAPPENS

## What would you do?

NEVER HAPPENS?

## HAPPENS

### Stuck at home?

In most emergencies, it's best to stay in your own home if it is safe to do so. But that may mean being without power and water or any way to get supplies for three days or more. Do you have enough food? What about family members who need medication? Do you have enough food for pets to get through too?

#### LIGHT UP

Your emergency supplies don't have to be in a kit, but you might have to find them in the dark. Make sure everyone knows where the torches and batteries are.

#### FRIDGE FIRST

If the power goes out, eat the food from your fridge first, then your freezer, before you eat the food in the cupboard or your emergency kit.

#### KNOW YOUR NEIGHBOURS

Get to know your neighbours. In an emergency, they may need your help or you may need their help, and you may be able to band together to get through.

#### TOP TIP

Keep up to date with emergency information by listening to a radio (get one with batteries), and checking the Clutha District Council and Emergency Management Otago websites and social media channels. Follow official emergency instructions.

### Can't get home?

In an emergency, public transport may not be able to operate, roads may be closed and streets or neighbourhoods might be blocked off. If you can't take your normal route home, how will you get there? Who will you go with? Where will you meet up if your street is a no-go zone?

#### SECOND MEETING PLACE

Agree on a meeting place if you can't get home. It might be the school, a friend's place, or with whānau.

#### PACK A GETAWAY BAG

Have a getaway bag at work or in your car, with walking shoes, warm clothes, some snack food and a bottle of water. A torch, batteries and radio are useful too.

#### TRAVEL TOGETHER

If you work away from home, find workmates who live in your area. In an emergency, you could travel together.

#### TOP TIP

Give the school or day care a list of three people who can pick the children up if you can't get there.

# get ready...



## Have to evacuate?

In an emergency, some houses, streets and neighbourhoods may not be safe to stay in and you may have to leave home in a hurry. If your street was evacuated where would you go? What would you take? What about pets? Do you have neighbours who might need your help?

### PACK A GETAWAY BAG

Have a getaway bag ready for everyone in your family with warm clothes, a bottle of water, snacks, copies of important documents and photo ID. Remember any medications you might need and keep your first aid kit, torch, radio and batteries somewhere you can grab them in a hurry.

### CHECK YOUR ZONE

If you live in a potential flood area, make sure your evacuation place is outside of the affected area. See pages 24 & 25 for maps.

### DECIDE WHERE TO GO

Decide where you will go (and make sure everyone in your family knows, in case you're not all together). Your evacuation place will probably be with friends or family, so make sure they know your plans.

### TOP TIP

If you have to leave home, take your pets with you. If it's not safe for you, it's not safe for them. Make sure your evacuation place will take your pets or you have the contact details for kennels, catteries and pet friendly motels.

## No power?

What would you do if the power was out for days? How will you see, cook, keep warm? Power cuts could affect EFTPOS and ATM machines, so make sure you have some cash at home, or enough supplies to see you through three days or more.

### LIGHT UP

Make sure you have torches and batteries, either in your emergency kit or somewhere everyone can find them in the dark.

### STAY TUNED IN

Have a solar or battery powered radio so you can keep up with the latest news and alerts. Know which radio stations to tune in to for information during an emergency.

### FRIDGE FIRST

If the power goes out, eat the food from your fridge first, then your freezer, before you eat the food in the cupboard or your emergency kit.

### STOCK UP

Have a stock of food that doesn't need to be cooked (canned is good) or something to cook your food on (bbq, camp stove). Don't forget food for babies and pets.

### TOP TIP

Talk to your neighbours about what they'll do if the power is out. You might find they have a gas bbq and you have enough food to share (or the other way around).

# get ready...



NEVER HAPPENS? HAPPENS

## What would you do?

### No Water?

To be prepared in case of a Civil Defence emergency you will need enough water for at least three days. You will need at least 3 litres of water for drinking per person, per day. You will also need extra water for washing and cooking. This is for everyone whether you are on a town supply or a rural water scheme. Those on a rural water scheme should consider having more than just three days water supply, as the magnitude of the emergency may be widespread throughout the district and your Council may have to prioritise repairing other water supplies over yours. Make sure you check and replace your Civil Defence water supply every 6 months (daylight saving changes are a great reminder). You could consider stocking a two-week supply of water for prolonged emergencies such as a pandemic.

#### BOTTLING WATER

Keep your empty water, juice and fizzy drink bottles, give them a good clean and fill them with water – you need three litres of water for each person for each day that you are without water. Don't forget to store water for babies and pets too.

#### LONG TERM WATER STORAGE

You can keep stored drinking water for up to a year if you add non-scented household bleach (half a teaspoon for every ten litres of water and don't drink for at least half an hour after mixing).

#### STAY FED AND WASHED

Remember to store water for cooking and cleaning as well. You can use the water in your hot water cylinder, but store some extra in large plastic containers.

#### RAINWATER COLLECTION

Please check that your storage and collection channels have not been damaged or contaminated.

#### TOP TIP

You can also fill plastic ice cream containers with water and keep them in the freezer. These can help keep food cool if the power is off and can also be used for drinking. Remember to change your water when daylight savings begins and ends.

#### RURAL WATER SCHEMES

Ensure you have at least three litres per person per day stored in case of disruption. Allow extra water for your pets and livestock. Change your stored water every 6 months. Please check your storage and infrastructure have not been damaged or contaminated.

#### URBAN WATER SCHEMES

Ensure you have at least three litres per person per day stored in case of disruption. Allow extra water for your pets and livestock. Change your stored water every 6 months.

**Note:** Don't forget your pets and livestock need water and it is your responsibility under Animal Welfare to ensure they have access to fresh drinking water. Your vet should be able to advise you on how much you should store for them.



# get ready...



## No Phone or Internet?

If the phone and internet lines were down how would you keep in touch, arrange to meet up, keep up with news and weather alerts? In most emergencies, it's best to stay in your own home, so make your home your meeting place and have an alternative in case you can't get there.

### PLAN A MEETING POINT

Talk to your family about how you will get in touch and where you will meet up in an emergency if the phone lines and/or internet are down.

### IF YOU HAVE CHILDREN

If you have children, make sure you know the school/day care's emergency plans and give the school the names of three people who could pick the children up if you can't get there.

### STAY TUNED IN

Have a solar or battery powered radio so you can keep up with the latest news and alerts. Know which radio stations to tune in to for information during an emergency.

### OUT OF TOWN CONTACT

Have an out of town contact that everyone knows about (sometimes when local phone lines are down you can still reach people outside your area). Get everyone to check in with your out of town contact by text or online messaging in an emergency if you can.

### KEEP A LIST

Keep a written list of important phone numbers.

### TOP TIP

In an emergency phone lines can become overloaded quickly. Keep them clear so emergency calls can be made and, if you can, use text or online messaging to keep in touch.

## Caring for Pets and Livestock

If you have pets, domestic animals or livestock, include them in your emergency planning.

- Attach a permanent disc to your pet's collar that clearly states your phone number, name and address. Microchip your pets.
- Ensure you have a carry box, towel or blanket, emergency food, a lead and muzzle as part of your pet's emergency getaway kit. Put your name, phone number and address on the box.
- In the event of an evacuation take your pets with you if you can safely do so. Take their vaccination records and essential medications with you as this will help your pet be re-housed if necessary.
- Make in-case-of-evacuation arrangements with friends or relatives outside your neighbourhood or area.
- Keep a list of "pet-friendly" hotels and motels and their contact details in case you have to evacuate your home or neighbourhood.
- If you have domestic animals (such as horses, pigs or poultry) or livestock, know which paddocks are safe to move livestock away from floodwaters, landslides and power lines. In the event of an evacuation, ensure you have a plan in place so that they will be secure and have food, water and shelter.
- The responsibility for animal welfare remains with the owner.

# get ready...



3 SIMPLE THINGS TO MAKE SURE YOU'RE READY

## Emergency Planning

### STEP 1 PLAN

A household emergency plan will help protect what matters most - you, your loved ones and your pets. It includes knowing the best way to leave your home in an emergency, where to meet and how to contact one another if separated.

### STEP 2 CREATE

Whether you're just starting out or you're a preparedness pro, gathering your emergency supplies is easy. A good rule of thumb is to have supplies for about 3 days. You'll be surprised at how much you already have.

### STEP 3 CONNECT

In an emergency or disaster situation you'll need to know how to get information and how to connect with people around you in your community. Now is a good time to connect so you'll be ready if it occurs.

### STEP 1 CREATE AND PRACTICE

COMPLETE YOUR HOUSEHOLD PLAN ON PAGE 32

## Household Emergency Plan

**Plan to look after yourself and your loved ones for at least 3 days or more.**

Many emergencies will affect essential services and possibly disrupt your ability to travel or communicate with each other. You may be confined to your home, or forced to evacuate your neighbourhood. In the immediate aftermath of an emergency, emergency services will not be able to get help to everyone as quickly as needed. This is when you are likely to be most vulnerable. So it is important to plan to look after yourself and your loved ones for at least three days or more in the event of an emergency.

Get your family or household together and agree on a plan. A functional emergency plan helps alleviate fears about potential emergencies, and can help you respond safely and quickly when an emergency happens. You can get a copy of a household emergency plan and checklist from your local council, download it from [www.getthru.govt.nz](http://www.getthru.govt.nz), or complete the Household Emergency Plan on the next page.

**IF LIFE OR PROPERTY IS THREATENED, ALWAYS DIAL 111**

### YOUR PLAN

**Your plan will help you work out:**

- What you will each do in the event of emergencies such as an earthquake, flood or storm.
- How and where you will meet up during and after an emergency.
- Where to store emergency survival items and who will be responsible for maintaining supplies.
- What you will each need to have in your getaway kits and where to keep them.
- What you need to do for members of the household, family or community with a disability or special requirement.
- What you will need to do for your pets, domestic animals or livestock.
- How and when to turn off the water, electricity and gas at the main switches in your home or business.
- Turn off gas only if you suspect a leak, or if you are instructed to do so by authorities. If you turn the gas off you will need a professional to turn it back on and it may take them weeks to respond after an event.
- Which local radio stations to tune in to for information during an event.
- How to contact your local council's civil defence emergency management office for assistance during an emergency.

# get ready...



## STEP 2 CREATE

# Emergency Survival Kit

In most emergencies you should be able to stay in your home. Plan to be able to look after yourself and your household for at least three days or more. Assemble and maintain your emergency survival items for your home as well as a portable getaway kit in case you have to leave in a hurry. You should also have essential emergency items in your workplace and in your car.



### EMERGENCY SURVIVAL ITEMS



Torch with spare batteries or a self-charging torch



Radio with spare batteries



Wind and waterproof clothing, sun hats and strong outdoor shoes



First aid kit and essential medicines



Blankets or sleeping bags



Pet supplies



Toilet paper and large rubbish bags for your emergency toilet



Face and dust masks

### GETAWAY KIT

Everyone should have a packed getaway kit in an easily accessible place at home and at work which includes:

- Torch and radio with spare batteries
- Any special needs such as hearing aids and spare batteries, glasses or mobility aids
- Emergency water and easy-to-carry food rations such as energy bars and dried foods.
- First aid kit and essential medicines
- Essential items for infants or young children such as formula and food, nappies and a favourite toy
- Change of clothes (wind/waterproof clothing and strong outdoor shoes)
- Toiletries – towel, soap, toothbrush, sanitary items, toilet paper
- Blankets or sleeping bags
- Face and dust masks
- Pet supplies.

### TOP TIP

Keep strong black garbage bags and kitty litter in your response bag. You can put the black bag and some kitty litter in it then place into your toilet or a bucket and use as emergency toilet if you have no flushing toilet available.

# get ready...



## STEP 3 HOW TO Stay Connected

**In a power outage**, only analogue phones on a copper wire network will continue to operate (fibre optic networks will fail).

Cell phone communications can become easily overloaded in a crisis. **Texting** is a better way to communicate with friends and family.

**Use your car** radio to listen to instructions and information if you don't have a battery operated radio.

**Use your car** for charging your cell phone/computer. A 12v charger is required for this. Make it part of your kit or keep in the car.

## Civil Defence Primary Contact Centre

Your Primary Incident Control Point is the Milton Service Centre/Library Milton. The community's needs will determine whether and which Community Led Centres' are opened in each township.



### CONNECT WITH YOUR NEIGHBOURS

**Communities that recover best from emergencies are those that have good social networks.**

**Connect with a few people on your street so in an emergency you can:**

- Check on your neighbours if you are evacuating to ensure they are also aware of the situation.
- Remember to take all your pets with you.
- Make sure everyone is looked after, especially those who might need extra help.
- Share resources and skills to help each other – three families cooking on one BBQ uses a lot less gas than three families cooking by themselves.
- Recover faster with less chaos or duplication of effort.
- Even better, you'll be helping build a friendlier, more resilient community every day of the year.

Start with a simple smile and introduction. The first step is always the hardest! Then suggest a few of you exchange contact details in case of an emergency.

### YOUR COMMUNITY FLYER

Please refer to your relevant Community Plan flyer for contact details of core members and facilities in the community and follow the communication processes indicated.

Make sure you advise your Community Response Coordinators (Street Captains) or the Milton Control Point of any checks you have completed on your neighbours and any needs that people may have i.e. medical, mobility etc.

# get thru...



COMMUNITY LED CENTRES

## Waihola



Waihola School



Waihola Town Hall



# get thru...



COMMUNITY LED CENTRES

## Milton



*Tokomairiro Rugby Club*



*Tokomairiro School*



## In an Emergency

In the event of an emergency i.e. tsunami, the Clutha District Council Civil Defence alert FENZ, Street Contacts/Captains (designated officials) found in your relevant Community Plan Leaflet.

These designated officials will contact the street coordinators (who in turn will endeavour to contact residents) only if evacuation is imminent. Please refer to the Community Plan Leaflet for your area for information on where you can obtain an update of a civil defence warning and/or please contact any one of the named coordinators/captains or officials

Those residents that are contacted by the street coordinator may be asked to make contact with other residents within the area. This will help speed up the process of alerting people.

Taieri Mouth Residents: Refer to your Community Guide for details of the Safe Forwarding Points.

The Emergency Contacts may sometimes be contacted by the Civil Defence only as a precaution i.e. there is no immediate danger.

**Civil Defence**  
(In the event of an emergency)



**FENZ**



**Street based  
point of contact**



**Residents**  
(If evacuation is imminent)



**Evacuate**

## Stay in touch

In an emergency, tune in and/or contact the following for more information with what is happening in your area.

### LOCAL RADIO STATIONS

**Big River Radio** // 92.9FM | 93.7FM

**National Radio NZ** // 101.4FM | 810AM

**More FM** // 97.3FM | 92.9AM



### WEBSITES

Log on to one of the following websites for more information.

[www.cluthadc.govt.nz](http://www.cluthadc.govt.nz)

[www.civildefence.govt.nz](http://www.civildefence.govt.nz)

[www.otagocdem.govt.nz](http://www.otagocdem.govt.nz)

[www.geonet.org.nz](http://www.geonet.org.nz)

[www.dunedin.govt.nz](http://www.dunedin.govt.nz)

[www.orc.govt.nz](http://www.orc.govt.nz)

[www.facebook.com/otagocdem](http://www.facebook.com/otagocdem)

### LOCAL COUNCIL

**Clutha District Council** // 0800 801350 | 03 419 2000



## EARTHQUAKE

### Before an earthquake

- Getting ready before an earthquake strikes will help reduce damage to your home and business and help you survive.
  - Develop a Household Emergency Plan. Assemble and maintain your Emergency Survival Items for your home and workplace, as well as a portable getaway kit.
  - Practice Drop, Cover and Hold.
- Identify safe places within your home, school or workplace.
  - Check your household insurance policy for cover and amount.
  - Seek qualified advice to make sure your house is secured to its foundations and ensure any renovations comply with the New Zealand Building Code.



- Secure heavy items of furniture to the floor or wall.
- Visit [www.eqc.govt.nz](http://www.eqc.govt.nz) to find out how to quake-safe your home.

### During an earthquake



**IF YOU ARE INSIDE A BUILDING**, move no more than a few steps, drop, cover and hold. Stay indoors till the shaking stops and you are sure it is safe to exit. In most buildings in New Zealand you are safer if you stay where you are until the shaking stops.



**IF YOU ARE IN AN ELEVATOR**, drop, cover and hold. When the shaking stops, try and get out at the nearest floor if you can safely do so.



**IF YOU ARE OUTDOORS** when the shaking starts, move no more than a few steps away from buildings, trees, streetlights, and power lines, then Drop, Cover and Hold.



**IF YOU ARE DRIVING**, pull over to a clear location, stop and stay there with your seatbelt fastened until the shaking stops. Once the shaking stops, proceed with caution and avoid bridges or ramps that might have been damaged.



**IF YOU ARE IN A MOUNTAINOUS AREA** or near unstable slopes or cliffs, be alert for falling debris or landslides.



**IF YOU ARE NEAR A LAKE, BAY OR RIVER MOUTH** consider evacuating to higher ground immediately as a seiche (inland tsunami) may be generated with the potential to rapidly flood or inundate low lying areas to a depth of 5 metres or greater.



## After an earthquake

- Monitor social media and listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.
- Expect to feel aftershocks.
- Check yourself for injuries and get first aid if necessary. Help others if you can.
- Be aware that electricity supply could be cut, and fire alarms and sprinkler systems can go off in buildings during an earthquake even if there is no fire. Check for, and extinguish, small fires.
- If you are in a damaged building, try to get outside and find a safe, open place. Use the stairs, not the elevators.
- Watch out for fallen power lines or broken gas lines, and stay out of damaged areas.
- Only use the phone for short essential calls to keep the lines clear for emergency calls.
- If you smell gas or hear a blowing or hissing noise, open a window, get everyone out quickly and turn off the gas if you can. If you see sparks, broken wires or evidence of electrical system damage, turn off the electricity at the main fuse box if it is safe to do so.
- Keep your animals under your direct control as they can become disorientated. Take measures to protect your animals from hazards, and to protect other people from your animals.
- If your property is damaged, take notes and photographs for insurance purposes. If you rent your property, contact your landlord and your contents insurance company as soon as possible.

### POST DISASTER

## Building management

Following the 2011 Canterbury earthquake, changes were made to how rapid building safety evaluations are carried out after earthquakes or floods. The Ministry of Building, Innovation & Employment (MBIE) has developed a number of documents to reflect these changes.

These documents are available on [www.building.govt.nz/post-disaster-building-management](http://www.building.govt.nz/post-disaster-building-management) for your information and are designed to be used by trained professionals during a State of Emergency.

**SAMPLE OF RED  
"ENTRY PROHIBITED" PLACARD**

**ENTRY PROHIBITED**  
(THIS IS NOT A DEMOLITION ORDER)

There has been a quick visual inspection of this building:  
 This building is at risk from an external hazard  
 This building has been seriously damaged

Description of hazard observed: \_\_\_\_\_

Extent of barricades required: \_\_\_\_\_

Diagram attached showing restricted areas

Access is not permitted without written authorisation from the Civil Defence Emergency Management Controller.

Building Name and Address: \_\_\_\_\_

This building has been subject to a rapid assessment:  
 Exterior Only  
 Exterior and Interior

Assessor ID: \_\_\_\_\_  
Date: \_\_\_\_\_ Time: \_\_\_\_\_

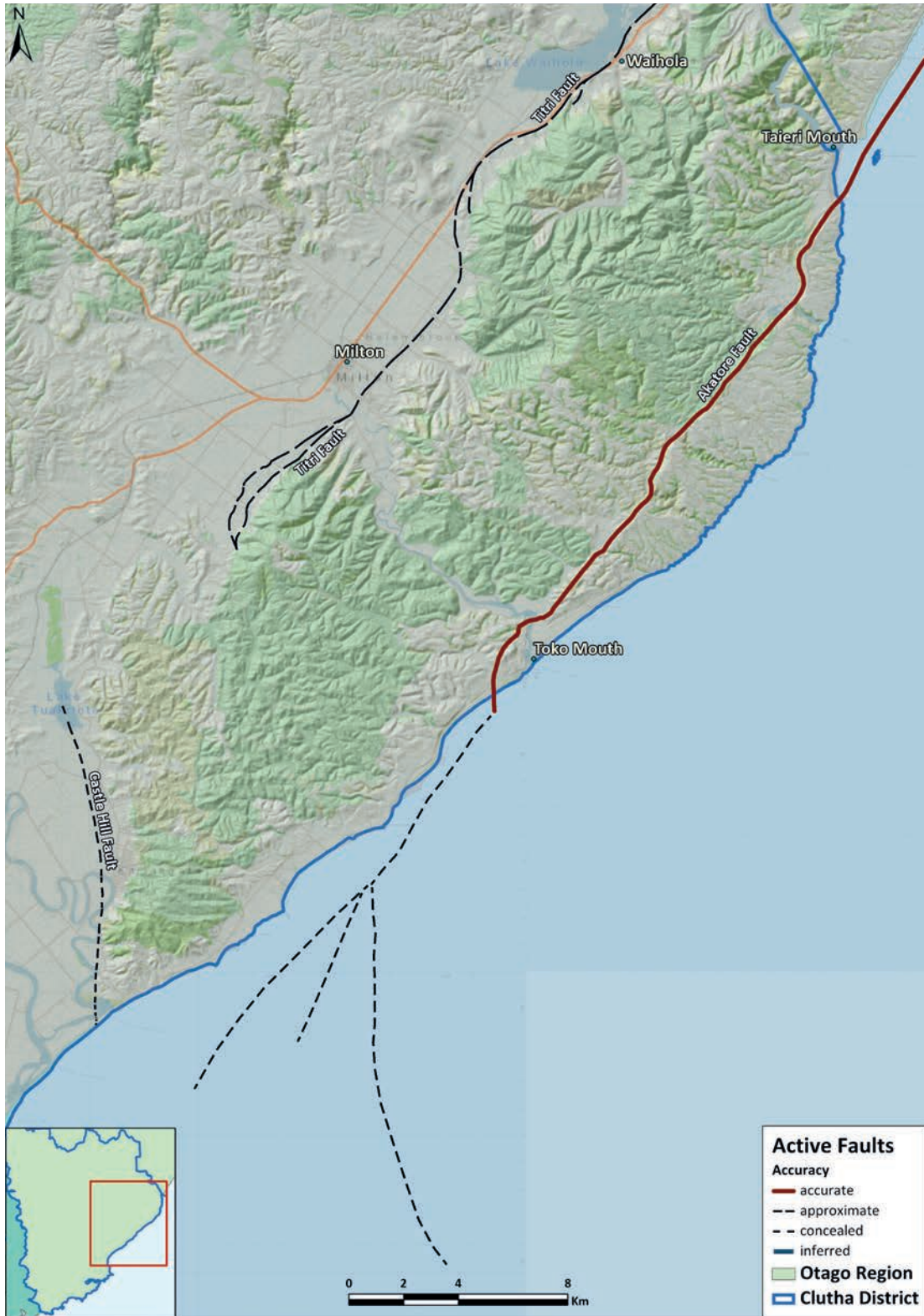
This placard has been placed on behalf of the Civil Defence Emergency Management Controller under the authority of the Civil Defence Emergency Management Act 2002.

For further information:  
• [www.bie.govt.nz/post-disaster-building-management](http://www.bie.govt.nz/post-disaster-building-management)  
• For enquiries about this building: \_\_\_\_\_

**DO NOT REMOVE THIS NOTICE**



## Local Seismic Fault Lines





## TSUNAMI

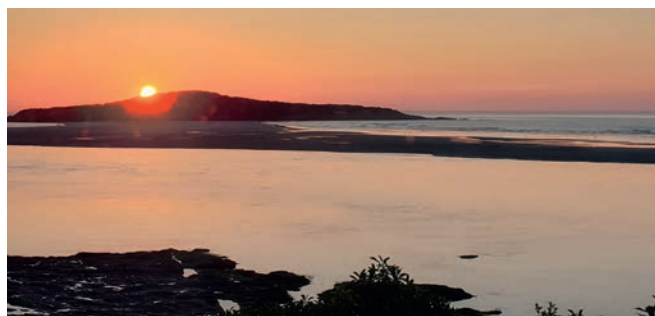
# Tsunami

A tsunami is a series of waves generated after a large disturbance of the sea caused by earthquakes, volcanic eruptions or underwater landslides. The source of the disturbance may be close to the New Zealand coastline or across the other side of the Pacific Ocean.

A near-source tsunami is generated close to the coastline. The water level will fall rapidly past the low tide mark and then quickly return. If this happens, there won't be enough time to issue a warning.

An earthquake centered on the Puysegur Trench, off the coast of Southland, could trigger a near-source tsunami which may affect coastal communities south of Otago Peninsula.

A distant source tsunami may start as far away as South America, taking much longer to reach New Zealand and affecting more of the coastline. National warnings will be issued by the Ministry of Civil Defence and Emergency Management.



*This image depicts a calm and normal Taieri Mouth scene at sunset*

These warnings are sent to the police, Civil Defence, and emergency management organisations. Warnings are also issued direct to enabled cellphones via the Emergency Mobile Alert System, as well as radio, television and social media.

Distant source tsunami may affect coastal communities in Otago. People living near the mouth of rivers such as the Taieri and Clutha could also be affected as a tsunami wave can travel up a river.

Tsunami can threaten lives, property and essential services.

## Before a tsunami

Getting ready before a tsunami strikes will help reduce damage to your home and business and help you survive.

- If you live in a coastal area, ask your council about your tsunami risk and local warning arrangements.
- If you have a disability or special requirements, arrange with your support network to alert you of any warnings and emergency broadcasts.
- Develop a Household Emergency Plan and have a Getaway Kit ready.
- Know where the nearest high ground is and how you will reach it. Plan to get as high up or as far inland as you can. Plan your escape route for when you are at home, as well as for when you may be working or holidaying near the coast.

**If you are at the coast and experience any of the following:**

- Feel a strong earthquake that makes it hard to stand up, or a weak rolling earthquake that lasts a minute or more.
- See a sudden rise or fall in sea level.
- Hear loud and unusual noises from the sea, Move immediately to the nearest high ground, or as far inland as you can.



**KNOW THE NATURAL WARNING SIGNS**



## TAIERI MOUTH

# Tsunami Warnings

Warning messages and signals about a possible tsunami can come from several sources – natural, official or unofficial.

### NATURAL WARNINGS

For a local source tsunami which could arrive in minutes, there won't be time for an official warning. It is important to recognise the natural warning signs and act quickly.

### OFFICIAL WARNINGS

Official warnings are only possible for distant and regional source tsunami. The Ministry of Civil Defence and Emergency Management will issue official warnings using the Emergency Mobile Alerting System and broadcast media. Emergency Management Otago and the Clutha District Council will use every possible means to share these alerts, including local media, sirens and ring lists.

### UNOFFICIAL OR INFORMAL WARNINGS

You may receive warnings from friends, other members of the public, international media and from the Internet. Verify the warning only if you can do so quickly. If official warnings are available, trust their message over informal warnings.

## Types of tsunami

There are three distinct types of tsunami. The type you encounter depends on the distance you are from the place where it is generated.

- **Distant tsunami** are generated from a long way away, such as from across the Pacific in Chile. In this case, we will have more than three hours warning time for New Zealand
- **Regional tsunami** are generated between one and three hours travel time away from their destination. An eruption from an underwater volcano in the Kermadec Trench to the north of New Zealand, could generate a regional tsunami
- **Local tsunami** are generated very close to New Zealand. This type of tsunami is very dangerous because we may only have a few minutes warning.

## Evacuation Zone Guide

<b>RED ZONE</b>	<b>Higher Probability</b>	<b>20cm - 1 metre</b>
<b>ORANGE ZONE</b>	<b>Moderate Probability</b>	<b>1 metre - 5 metres</b>
<b>YELLOW ZONE</b>	<b>Lower Probability</b>	<b>5 metres - 8 metres</b>

**RED** Evacuate if you feel a long or strong earthquake or after an official warning for a beach and marine threat with wave height of 0.2 metres and above.

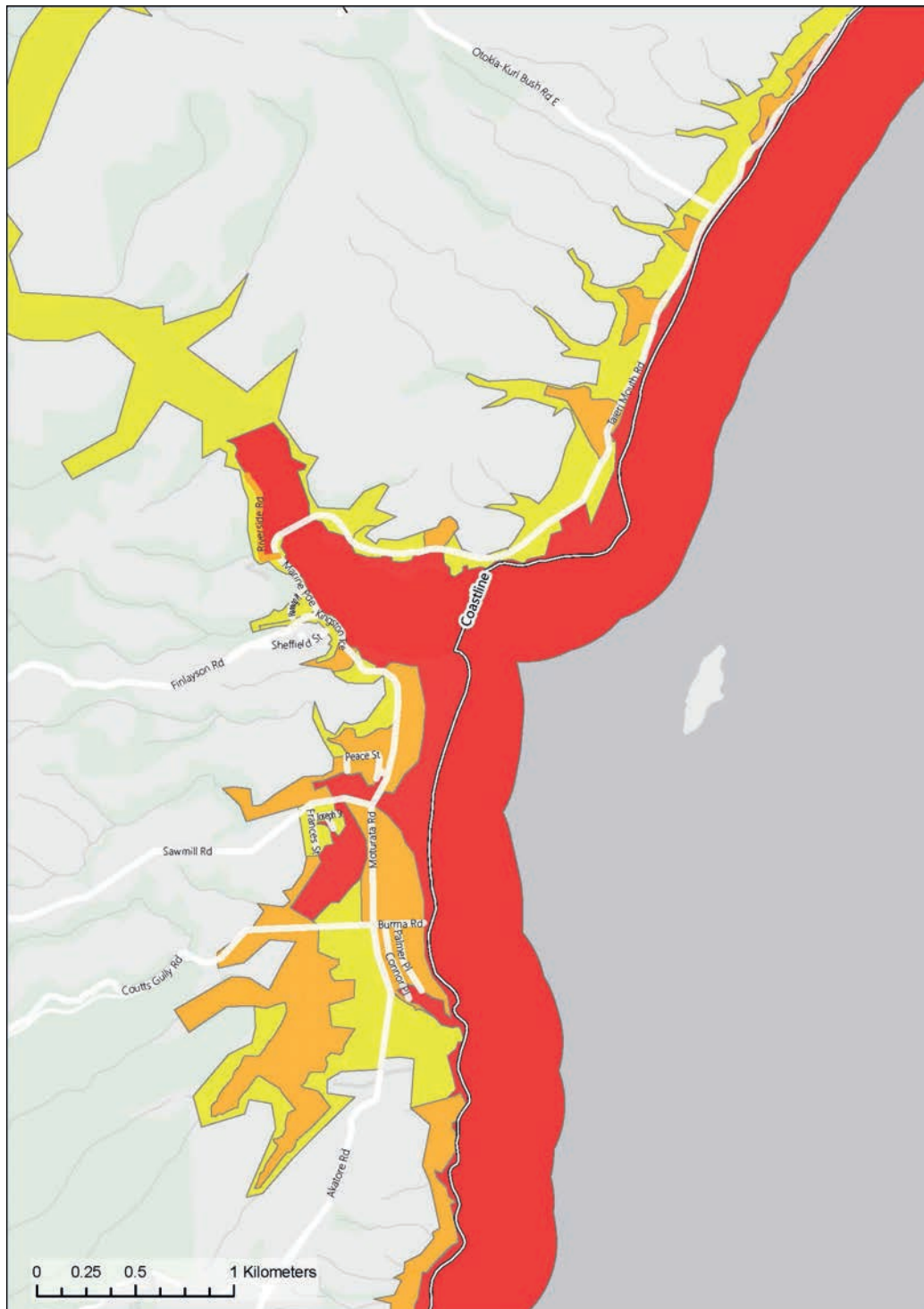
**ORANGE** Evacuate if you feel a long or strong earthquake or after an official warning for a wave height 1-3 metres.

**YELLOW** Evacuate after an official warning for a wave height more than 3 metres.



TAIERI MOUTH

## Tsunami Evacuation Zones



For more information about the Tsunami Evacuation Zones, please visit [www.otagocdem.govt.nz/hazards/Tsunami](http://www.otagocdem.govt.nz/hazards/Tsunami)





## During a tsunami

Take your getaway kit with you if possible. Do not travel into the areas at risk to get your kit or belongings.

- Take your pets with you if you can do so safely
- Move immediately to the nearest higher ground, or as far inland as you can. If evacuation maps are present, follow the routes shown
- Walk or bike if possible and drive only if essential. If driving, keep going once you are well outside the evacuation zone to allow room for others behind you
- Boats are usually safer in water deeper than 20 metres than if they are on the shore. Move boats out to sea only if there is time and it is safe to do so
- Never go to the shore to watch for a tsunami. Stay away from at-risk areas until the official all-clear is given
- Listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.

## After a tsunami

Continue to listen to the radio for civil defence advice and do not return to the evacuation zones until authorities have given the all-clear.

- Be aware that there may be more than one wave and it may not be safe for up to 24 hours, or longer. The waves that follow the first one may also be bigger
- Check yourself for injuries and get first aid if needed. Help others if you can
- Do not go sightseeing
- When re-entering homes or buildings, use extreme caution as floodwaters may have damaged buildings. Look for, and report, broken utility lines to appropriate authorities
- If your property is damaged, take notes and photographs for insurance purposes. If you rent your property, contact your landlord and your contents insurance company as soon as possible.





## FLOOD

### Before a flood

- Find out from your local council if your home or business is at risk from flooding. Ask about evacuation plans and local public alerting systems; how you can reduce the risk of future flooding to your home or business; and what to do with your pets and livestock if you have to evacuate
- Know where the closest high ground is and how to get there
- Develop a Household Emergency Plan. Assemble and maintain your Emergency Survival Items for your home as well as a portable getaway kit
- Check your insurance policy to ensure you have sufficient cover.

### During a flood

#### OR IF A FLOOD IS IMMINENT

- Monitor social media and listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation
- If you have a disability or need support, make contact with your support network
- Put your household emergency plan into action and check your getaway kit. Be prepared to evacuate quickly if it becomes necessary
- Where possible, move pets inside or to a safe place, and move stock to higher ground
- Consider using sandbags to keep water away from your home
- Lift valuable household items and chemicals as high above the floor as possible
- Fill bathtubs, sinks and storage containers with clean water in case water becomes contaminated
- Turn off utilities if told to do so by authorities as it can help prevent damage to your home or community. Unplug small appliances to avoid damage from power surges
- Do not attempt to drive or walk through floodwater unless it is your only escape route.

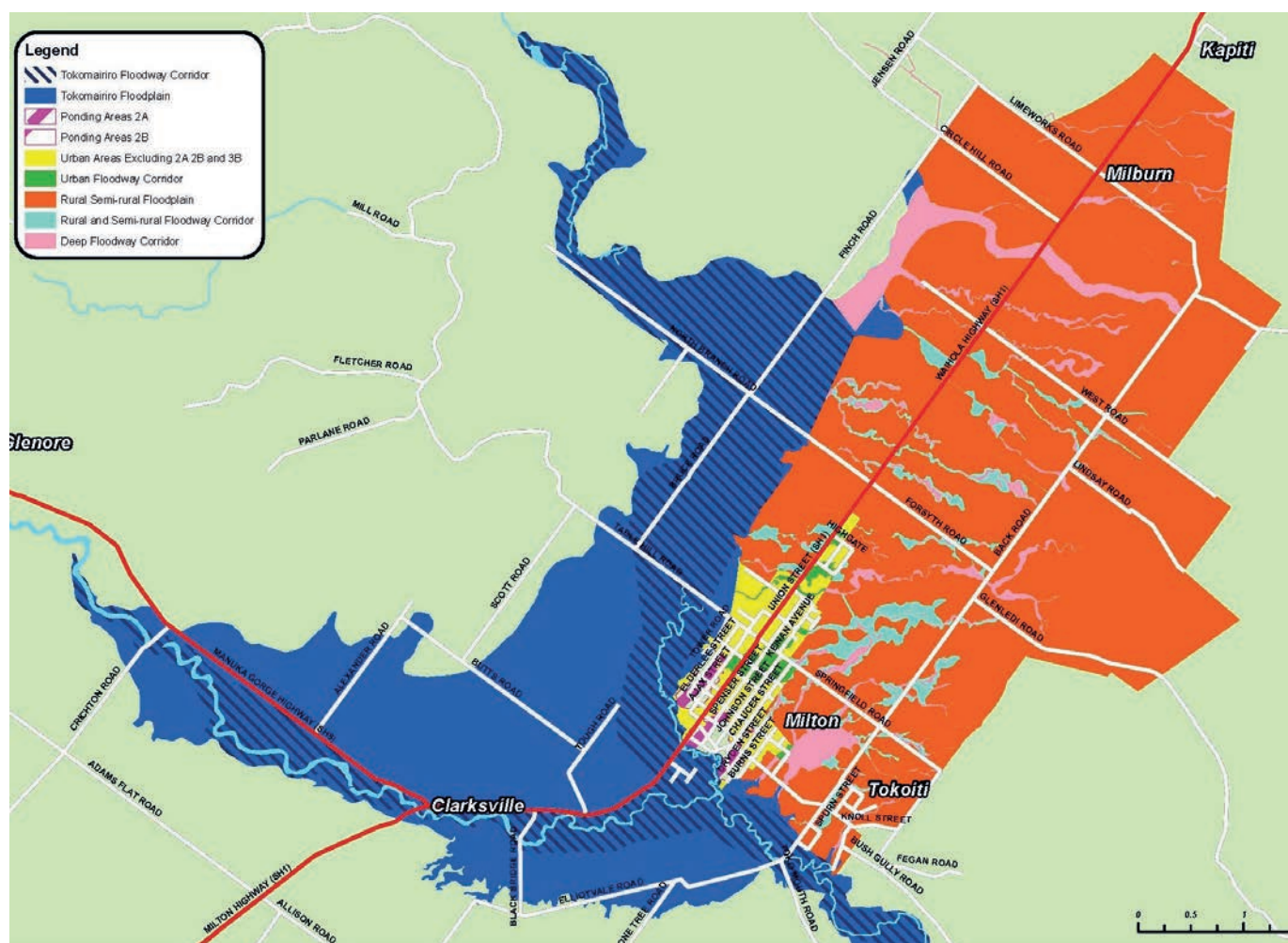
### After a flood

- It may not be safe to return home even when the floodwaters have receded. Continue to monitor social media and listen to your local radio station for civil defence instructions
- Help others if you can, especially people who may require special assistance
- Throw away food including canned goods and water that has been contaminated by floodwater
- Avoid drinking or preparing food with tap water until you are certain it is not contaminated. If in doubt, check with your local council or public health authority
- Look for and report broken utility lines to appropriate authorities
- If your property is damaged, take notes and photographs for insurance purposes. If you rent your property, contact your landlord and your contents insurance company as soon as possible.



## MILTON

# 2060 Flood Risk Management Strategy



Flooding as a result of heavy rainfall in the Tokomairiro catchment is a natural process which is largely uncontrollable. Milton is prone to flooding, often with adverse effects. The Otago Regional Council and Clutha District Council have proposed the Milton 2060 Flood Risk Management Strategy to enable long term sustainable occupation and development in Milton. A distant source tsunami may start as far away as South America, taking much longer to reach New Zealand and affecting more of the coastline. National warnings will be issued by the Ministry of Civil Defence and Emergency Management.

### The strategy's objectives are to:

- Identify the characteristics of flood events, and their effect on Milton and the northern Tokomairiro plain.
- Equip the community to understand, and live with, the effects of flooding.
- Guide the nature and extent of land use development so that flood risk does not increase and that this risk is progressively reduced, and
- Support the investigation and implementation of flood risk reduction measures.



## MILTON Flood Zone

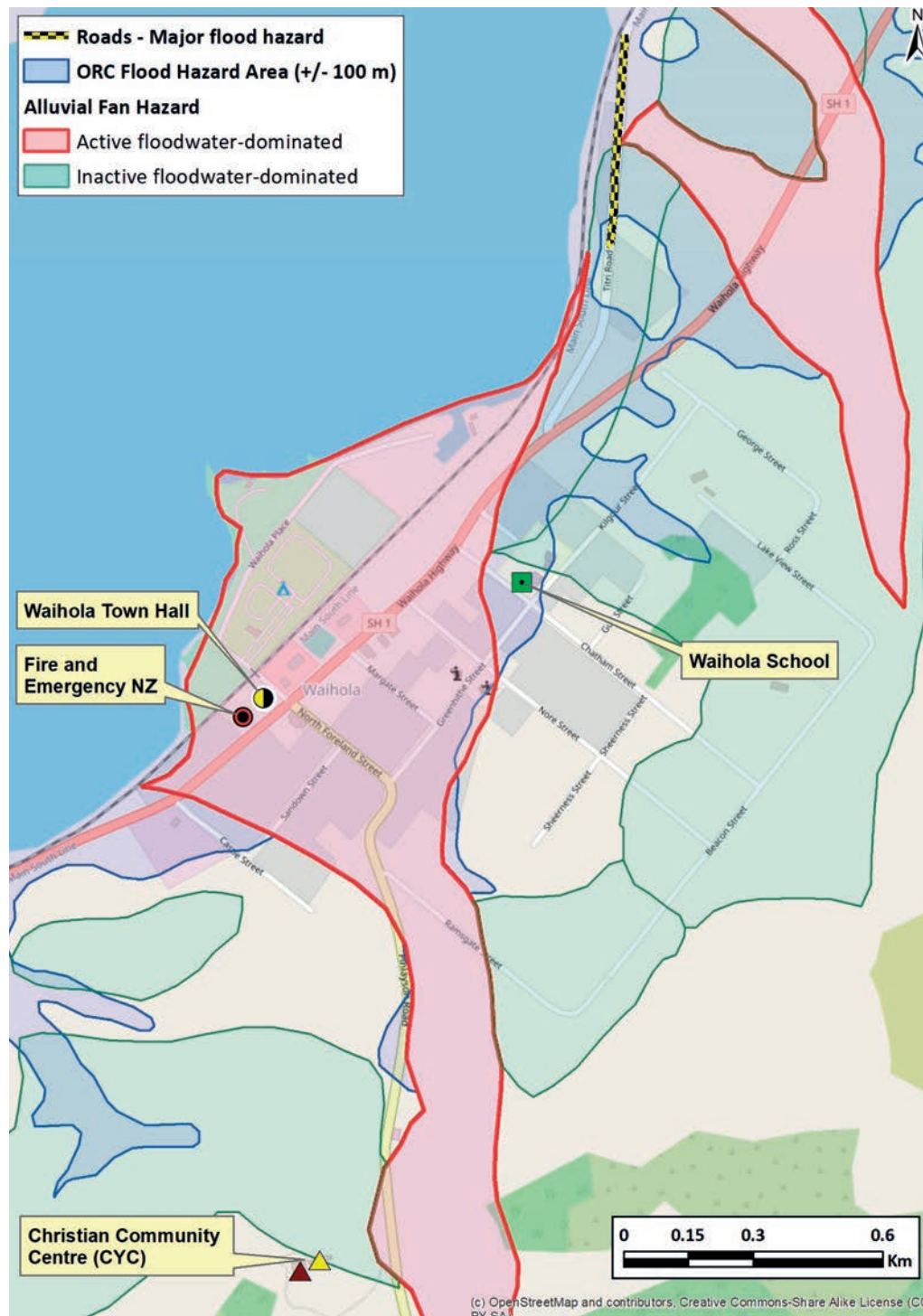


This map shows an overview map of the Tokomairiro River floodplain (blue), the rural and semi rural floodplain (red) and the urban ponding and corridor areas. The full strategy with detailed mapping and information is available on the Clutha District Council and Otago Regional Council websites.



## WAIHOLA

# Flood Zone



Much of Waihola township sits below current mean sea level and exposed to flood hazard from surrounding hill catchments and Lake Waipori or Lake Waihola. Alluvial Fans are a build up of river or stream sediments which form a sloping land form shaped like an open fan or segment of a cone. They typically occur near the boundary between hill slopes and valleys and owe their origins to changes in the slope of natural drainage systems, for example where a steep gully merges onto a flatter valley floor. Flooding on alluvial fans can be damaging as the fans have a steeper gradient than river floodplains. During a flood, water will spill across the fan surface. Often water flows down these fans in a thin continuous sheet and a considerable buildup of sedimentation and debris may result from alluvial fan floods. Waihola has a flood hazard risk from Alluvial Fans from the hills surrounding the township.



## SNOWSTORMS / MAJOR STORMS

### Before a storm

- Develop a Household Emergency Plan. Assemble and maintain your Emergency Survival Items for your home as well as a portable getaway kit.
- Prepare your property for high winds. Secure large heavy objects or remove any item which can become a deadly or damaging missile. Get your roof checked regularly to make sure it is secure. List items that may need to be secured or moved indoors when strong winds are forecast.
- Keep materials at hand for repairing windows, such as tarpaulins, boards and duct tape.
- If you are renovating or building, make sure all work complies with the New Zealand Building Code which has specific standards to minimise storm damage.
- If farming, know which paddocks are safe to move livestock away from floodwaters, landslides and power lines.

### WHEN A WARNING IS ISSUED AND During a storm

- Stay informed on weather updates. Monitor social media and listen to your local radio stations as civil defence authorities will be broadcasting the most appropriate advice for your community and situation [www.metservice.com](http://www.metservice.com)
- Put your household emergency plan into action and check your getaway kit in case you have to leave in a hurry.
- Secure, or move indoors, all items that could get blown about and cause harm in strong winds.
- Close windows, external and internal doors. Pull curtains and drapes over unprotected glass areas to prevent injury from shattered or flying glass.
- If the wind becomes destructive, stay away from doors and windows and shelter further inside the house.
- Water supplies can be affected so it is a good idea to store drinking water in containers and fill bathtubs and sinks with water.
- Don't walk around outside and avoid driving unless absolutely necessary.
- Power cuts are possible in severe weather. Unplug small appliances which may be affected by electrical power surges. If power is lost unplug major appliances to reduce the power surge and possible damage when power is restored.
- Bring pets inside. Move stock to shelter. If you have to evacuate, take your pets with you.





## After a storm

- Monitor social media and listen to your local radio stations as emergency management officials will be broadcasting the most appropriate advice for your community and situation.
- Check for injuries and help others if you can, especially people who require special assistance.
- Look for and report broken utility lines to appropriate authorities.
- Contact your local council if your house or building has been severely damaged.
- If your property or contents are damaged take notes and photographs and contact your insurance company. Inform your landlord if there is damage to the rental property.
- Ask your council for advice on how to clean up debris safely.

## Snowstorms

In a snowstorm, the primary concerns are the potential loss of heat, power and telephone service, and a shortage of supplies if storm conditions continue for more than a day. It is important for people living in areas at risk from snowstorms to consider the need for alternative forms of heating and power generation.

- Avoid leaving home unless absolutely necessary when a snow warning is issued.
- If you have to travel make sure you are well prepared with snow chains, sleeping bags, warm clothing and essential emergency items.
- At home, check fuel supplies for woodburners, gas heaters, barbeques and generators.
- Bring pets inside. Move domestic animals and stock to shelter.
- If you are caught in your car or truck in a snowstorm, stay in your vehicle. Run the engine every ten minutes to keep warm. Drink fluids to avoid dehydration. Open the window a little to avoid carbon monoxide poisoning. Make yourself visible to rescuers by tying a brightcoloured cloth to your radio aerial or door and keeping the inside light on.

### CLEARING SNOW ON LOCAL ROADS MANAGED BY CLUTHA DISTRICT COUNCIL

- The Council has a hierarchy of roads which prioritises clearing snow to give access to as many residents as possible as soon as possible
- Roads required for emergency services, access for other special purposes and for network operators receive priority over all others, depending on the circumstances
- Contractors will commence snow clearing when no further snow fall expected within 24 hours

#### The following times are aimed for:

- Arterial roads – cleared within 1 day
- Collector roads – cleared within 1 day
- Local roads to residences – cleared within 2 days
- Access roads to significant farming areas – cleared within 2 days
- Other roads – cleared within 3 days
- Snow is to be cleared as much as practicable without damaging the road surface to avoid future freezing creating more treacherous road conditions
- Please note all state highways are managed by NZTA and not your local council.



## WILDFIRE

### Before a fire

**To protect your rural property from fire, we recommend:**

- Installing smoke alarms and testing them regularly
- Designing an escape plan and practicing it.
- Keeping the grass green and mown or grazed around your home
- Creating a safety zone around your home of at least 10m by clearing any dead or dry material and replacing flammable plants and trees with low flammable species
- Making sure your property is clearly signposted with your RAPID rural property identification number
- Installing multipurpose dry powder extinguishers in your house and out buildings
- Keeping a garden hose connected and make sure it is long enough to reach around the house
- Ensuring your driveway has a minimum clearance of 4m wide and 4m high and adequate turning space for large vehicles
- Easy access to water supplies and making sure they are signposted
- Storing firewood and other flammable material away from your house
- Safe handling and storage of gas or liquid fuels
- Maintaining machinery and equipment in working order
- Disposing of ash safely in a metal container and using approved incinerators.

### During a fire

- Crawl low and fast to escape smoke  
**'Get Down, Get Low, Get Out.'**
- Shut doors behind you to slow the spread of fire
- Meet at the planned meeting place
- Once out, stay out - never go back inside
- Phone 111 from a safe phone.

**TELL FIRE AND EMERGENCY NEW ZEALAND**

- House number
- Street
- Nearest intersection
- Suburb and City
- RAPID number if you have one







## After a fire

Nothing can really prepare you for the impact of a fire or other emergency on your family and property. Even a small fire or flood can make you feel helpless and unsure of what to do next. This is entirely understandable. Fire and Emergency New Zealand (FENZ) regularly sees home owners faced with the same distressing situation. Here's some guidance on the important things you need to do now that the unimaginable has happened.

Do not enter your damaged house unless you have to and have been advised it is safe to do so. Fire and Emergency NZ will check the water, electricity and gas supplies and either arrange to have them disconnected or advise you what action to take.

If you can't enter your home, you'll need to arrange accommodation. You may need to stay

with family, friends or in a motel for at least one night, and longer if the house has been seriously damaged.

### **When your house is safe and you are allowed back:**

- Try to find your identification, insurance information, medication information, eye glasses, hearing aid, wallet and valuables
- If the house is too badly damaged to live in, board up openings to discourage trespassers
- You may need to arrange security patrols to protect it from burglary
- Keep receipts for expenses resulting from the fire, such as accommodation or clothes
- Get supplies of medicine or eye glasses.

## Fire Seasons

There are three fire seasons you should be aware of:

### **OPEN FIRE SEASON**

A fire permit is not required to light a fire in the open air as long as certain conditions are met.

### **RESTRICTED FIRE SEASON**

In this season a fire permit from Fire and Emergency NZ Authority is required before you can light a fire in the open air.

### **PROHIBITED FIRE SEASON**

Means a total fire ban is in place. Lighting fires in the open air is not permitted.

For the current fire season and to apply for fire permits contact Fire and Emergency NZ or visit [www.fireandemergency.nz](http://www.fireandemergency.nz)



**HAVE YOU CONSIDERED  
INSTALLING FIRE SPRINKLERS?**

Home sprinklers will protect your family, home and contents from the threat of fire - 24 hours a day.

Sprinkler technology has come a long way in a short space of time. The cost of including home sprinklers into a new house or adding them as part of major renovations is probably a lot cheaper than you think.

Home sprinklers use the same domestic plumbing as your kitchen taps and can be installed by a qualified plumber in less than two days.

More importantly though, sprinklers provide the fastest possible means of extinguishing fires in rural homes.

For more information visit [www.fireandemergency.nz](http://www.fireandemergency.nz)



## ACCIDENT HOT SPOTS

2013–2018

# Serious & fatal traffic accidents



Heat Map of high risk accident spots 2013-2018. Scale from yellow to red (red indicating highest volume of serious or fatal crash sites)

# get ready...



## Roles and responsibilities

The roles and responsibilities of the emergency services and civil defence is defined by legislation. In the event of a “State of Emergency” being declared all activities are coordinated by civil defence.

	<p>Liaise with police and emergency services to initiate and assist in a response to a civil emergency, disseminate warnings and identify and make arrangements for civil defence centres if required.</p>
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	<p>Rural and Urban firefighting</p> <p>Containment of releases and spillages of hazardous substances</p> <p>Urban search and rescue</p> <p>Redistribution of water for specific needs</p> <p>Reducing fire risk in rural areas</p>
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	<p>Maintain law and order</p> <p>Protect life and property</p> <p>Assisting the coroner</p> <p>Search and rescue</p> <p>Evacuations</p>
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	<p>Provision of emergency medical care</p>
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	<p>Responsible for the planning, funding and provision of publicly funded health care services</p>
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## Contact Information

**Only call 111 in an emergency. Do not call 111 for information and advice. Calling 111 unnecessarily may put others who are in a genuine emergency situation at risk.**



[www.otagocdem.govt.nz](http://www.otagocdem.govt.nz)  
**0800 474 082**



**St John**

**Dial 111** (Emergencies Only)  
[www.stjohn.org.nz](http://www.stjohn.org.nz)



Clutha District Council

**03 419 0200 0800 801 350**  
[www.cluthadc.govt.nz](http://www.cluthadc.govt.nz)



Otago Regional Council

**0800 474 082**  
[www.orc.govt.nz](http://www.orc.govt.nz)



Ministry of Civil Defence & Emergency Management  
Te Rākau Whakamarumarū

[www.civildefence.govt.nz](http://www.civildefence.govt.nz)



**Dial 111** (Emergencies Only)  
Milton Police Station  
**03 417 8203**  
[www.police.govt.nz](http://www.police.govt.nz)



**Dial 111** (Emergencies Only)  
[www.coastguard.nz](http://www.coastguard.nz)



**0800 REDCROSS**  
[www.redcross.org.nz](http://www.redcross.org.nz)



Milton Community Health Trust  
7 Eden Street, PO Box 112  
Milton  
**03 417 4398**  
[milcomhealth@xtra.co.nz](mailto:milcomhealth@xtra.co.nz)



**Dial 111** (Emergencies Only)  
[www.fireandemergency.nz](http://www.fireandemergency.nz)



**0800 362 468**  
[www.doc.govt.nz](http://www.doc.govt.nz)



**0800 808 587**  
<https://outages.powernet.co.nz>



[www.nzta.govt.nz](http://www.nzta.govt.nz)



[www.metservice.com](http://www.metservice.com)

# get ready...



**YOUR HOUSEHOLD** Address

Name <input type="text"/>	Phone numbers <input type="text"/>
Name <input type="text"/>	Phone numbers <input type="text"/>
Name <input type="text"/>	Phone numbers <input type="text"/>
Name <input type="text"/>	Phone numbers <input type="text"/>
Name <input type="text"/>	Phone numbers <input type="text"/>

**1.** If we can't get home or contact each other we will meet or leave a message at:

Name

Contact details

Name (back-up)

Contact details

Name (out of town)

Contact details

**2.** The person responsible for collecting the children from school is:

Name

Contact details

**3.** Emergency Survival Items and Getaway Kit

Person responsible for checking water and food

Items will be checked and replenished on:

(check and replenish at least once a year)

The Getaway Kits are stored in the

**4.** The radio station (inc AM/FM frequency) we will tune in to for local civil defence information during an emergency

**5.** Friends/neighbours who may need our help or who can help us

Name

Address

Phone

Name

Address

Phone

**6.** On a separate sheet of paper draw a plan of the house showing places to shelter in an earthquake or storm, exits and safe assembly areas and where to turn off water, electricity and gas.

**IMPORTANT PHONE NUMBERS FOR POLICE, FIRE OR AMBULANCE CALL 111**

Local Police station <input type="text"/>	Water Supplier <input type="text"/>
Medical Centre <input type="text"/>	Gas Supplier <input type="text"/>
Insurance Company <input type="text"/>	Electrician <input type="text"/>
Vet/Kennel/Cattery <input type="text"/>	Plumber <input type="text"/>
Electricity Supplier <input type="text"/>	Builder <input type="text"/>
Council Emergency Helpline <input type="text"/>	

# Notes

**This pages have been left blank for you to add in other important information i.e. Neighbours contact details / Neighbours that may need assistance / Important personal information / Other emergency planning notes.**

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# get thru...



A series of 21 horizontal blue lines for writing.

# For further information:

## LOCAL COUNCIL

Clutha District Council  
**03 419 0200**  
**0800 801 350**  
**[www.cluthadc.govt.nz](http://www.cluthadc.govt.nz)**

Otago Regional Council  
**0800 474 082**  
**[www.orc.govt.nz](http://www.orc.govt.nz)**

## CIVIL DEFENCE SITES

Otago Civil Defence  
**[www.otagocdem.govt.nz](http://www.otagocdem.govt.nz)**

National Emergency  
Management Agency  
**[www.civildefence.govt.nz](http://www.civildefence.govt.nz)**

Get Ready  
**[www.getready.govt.nz](http://www.getready.govt.nz)**

## EMERGENCY SERVICES

Fire & Emergency NZ  
**[www.fireandemergency.nz](http://www.fireandemergency.nz)**

New Zealand Police  
**[www.police.govt.nz](http://www.police.govt.nz)**

St John Ambulance  
**[www.stjohn.org.nz](http://www.stjohn.org.nz)**



**Emergency  
Management Otago**  
Te Rākau Whakamarumarū Ōtākou



Clutha District Council