

# Fire Plan for Otago 2024–2027



WHAKARATONGA IWI

**FIRE  
EMERGENCY**

NEW ZEALAND



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**Status of this document**

This document is issued by Fire and Emergency New Zealand.

**Recommendations for change**

The document, its content and specific processes are not to be altered except through Fire and Emergency New Zealand document management processes.

Requests or recommendations for changes to this material should be sent to the District Manager, Otago District. See [Local contacts](#).

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**Approval**

Full Name: Mike Grant

Title: Region Manager

Date: 2 July 2024

Signature

## Introduction

### How to use this document

The front sections of this document cover:

- general information about fire plans
- the basics of Fire and Emergency New Zealand's fire control powers
- how we use these powers to reduce the risk of unwanted fires, particularly in the open air.

The back section, [Otago information](#), is for specific local information about this fire plan area. Fire plans must take the local fire risk conditions into account and not just apply a blanket standard across the country. All of our areas have different levels of risk, so what may be appropriate for one area of the country may not apply somewhere else.

### Why do we have fire plans?

Fire plans are required by [section 22](#) of the [Fire and Emergency New Zealand Act 2017](#) (the Act) and the [Fire and Emergency New Zealand \(Fire Plans\) Regulations 2018](#).

According to [Regulation 5](#) of the Regulations, the purpose of a fire plan is to:

- provide transparency and predictability in relation to the use of Fire and Emergency's fire control powers under sections [52 to 58](#) and [62 to 68](#) of the [Fire and Emergency New Zealand Act 2017](#) in each local area; and
- ensure that the particular fire risk conditions in each local area are considered by Fire and Emergency when it establishes policies and procedures for, and exercises fire control powers within, that local area.

This means that we need to explain how we:

- set locally appropriate triggers for changing fire seasons for outdoor fires to:
  - require permits
  - prohibit fires
  - restrict activities that may cause unwanted fires
- apply our other powers to manage fire hazards or require firebreaks.

These explanations help people to understand what to expect, how to plan for this and what they need to do to comply with any requirements.

### Content of the fire plans

This Fire Plan is about how, when and why Fire and Emergency will exercise its fire control powers to reduce the incidence of unwanted fires in the area.

Fire plans are not about how we fight fires in the local area, or the resources available to do so.

Fire plans must do the following.

#### Describe local fire risk conditions

A fire plan must describe the particular fire risk conditions that exist or are likely to exist in the local area. This means that each fire plan:

- is accurate and relevant for its area
- can be broken down into specific zones within the area where fire risk conditions or control measures differ.

## Set out policy

A fire plan must set out the policy for fire control in the local area. It must specify when and why we:

- restrict or prohibit fires in the outdoors
- restrict activities that may cause unwanted fires
- manage fire hazards
- require firebreaks.

## Set out procedures

A fire plan must set out fire control procedures for the local area. These include:

- details of the processes that Fire and Emergency will follow
- factors that Fire and Emergency will consider when deciding to:
  - issue notices of prohibitions or restrictions for fire control under [section 52](#) of the Act
  - declare a prohibited or restricted fire season in relation to the local area, or a part of that area, under [section 56](#) of the Act
  - issue notices in relation to firebreaks under [section 62](#) of the Act
  - issue notices to remove or destroy vegetation or other things on land under [section 65](#) of the Act.

This means that our communities understand how we have come to those decisions, and that we can show that they are evidence-based decisions that don't impact on recreational and economic activities unnecessarily.

## Take Fire and Emergency's other requirements, agreements and policies into account

A fire plan must be consistent with:

- Fire and Emergency's national strategy
- any local planning by Fire and Emergency for the local area
- any current operational service agreement and memorandum of understanding that Fire and Emergency has with other agencies or people relevant to the local area
- any relevant Fire and Emergency policies. The first part of this template highlights policies that impact our regulatory role, However, fire plans must comply with other Fire and Emergency internal policies, such as records management.

## Cover the entire area

A fire plan must cover the entire local area that it relates to, but we can break each area down into smaller zones to manage them individually. This ensures that each fire plan is relevant to everywhere within its area.

## Set out Fire and Emergency's fire control powers

Fire plans are not about how we fight fires in the local area, or the resources available to do so. This plan is about how, when and why Fire and Emergency will exercise its fire control powers to reduce the incidence of unwanted fires in the area.

## Local area and zones

### Local area

In these fire plans, local area is the area within each Local Advisory Committee's (LAC's) boundaries.

The Fire and Emergency New Zealand (Fire Plans) Regulations 2018 indicate that Fire and Emergency must prepare and issue a fire plan for each local area as soon as possible after the boundaries of the LAC for the local area are set.



In May 2019, the Board of Fire and Emergency New Zealand approved LAC boundaries aligned with the Civil Defence Emergency Management Group (CDEMG) boundaries as originally proposed and publicly consulted. There was one modification in the Hawke's Bay LAC area to include the Tararua District.

## Zones

When dividing a local area into zones, we consider factors such as climatic conditions, geographical features, land use or territorial authority.

We also look at previous analyses of the wildfire threat.

### Applying fire seasons to zones

When we apply fire seasons to a zone, we consider:

- whether they season make sense from a fire science point of view
- how we can communicate to the public where the boundaries are.

## Consultation

Before issuing a fire plan for a local area, or an amended fire plan, Fire and Emergency must do the following:

### Publish a notice

The notice should:

- outline the proposed plan
- say where you can see and read a copy of the plan
- say how you can make a submission on the plan and where to send your submissions
- give the closing date and time for submissions.

It must be published in the Gazette, or in a newspaper circulating in the local area, or a website.

### Consider submissions

Fire and Emergency New Zealand must consider every submission received by the closing date and time for submissions.

### Include a list of key stakeholders

A fire plan should include a list of key stakeholders in the local area and zone information. Stakeholders include those who:

- were involved in creating the plan
- should contribute to maintaining it and making relevant decisions.

### Record stakeholder engagement

Fire and Emergency will record stakeholder engagement and their inputs in the stakeholder engagement plan for the fire plan.

## Review and amendment

Fire and Emergency may amend a fire plan at any time.

However, we must review the fire plan for each local area at least once every 3 years, or if there are significant changes to the boundaries of the local area.

When we review the fire plan for a local area, we must either:

- confirm that the fire plan is still appropriate for that area
- amend the fire plan as necessary and consult on changes.

## 4 Rs of emergency management

The '4 Rs' sum up New Zealand's approach to emergency management – reduction, readiness, response and recovery.

Fire plans are a part of reduction space. Previous fire plans issued under the old rural fire authorities also included readiness and response. We now put that information in our other planning work and operational procedures.

The next sections outline the work Fire and Emergency does in each of the 4 Rs.



### Reduction

Reduction means:

- identifying and analysing long-term risks to human life and property
- taking steps to eliminate these risks if practicable
- if not, reducing their impact and the likelihood of them occurring.

The first of Fire and Emergency's principal objectives is to reduce unwanted fires.

For Fire and Emergency, this work includes

- our national framework for fire control. This framework includes:
  - these fire plans
  - our fire control powers for reducing the likelihood of unwanted fire from the use of fire in the open air
  - our fire control powers for reducing the likelihood of other causes of wildfire by setting fire seasons, requiring fire permits, firebreaks and fire hazard removal
- evacuation procedures and evacuation schemes for buildings
- input into building design for fire safety, and our part in the building consent application process
- the national automatic fire alarm system
- influencing policies within standard-setting bodies and with central and local government

- public education campaigns around escape planning, fire safety, and smoke alarms.

## Readiness

Readiness means developing operational systems and capabilities before an emergency occurs. These include self-help initiatives for the public, specific programmes for emergency services, lifeline utilities and other services.

For Fire and Emergency, this includes:

- establishing and maintaining our response capability (our fire stations and trained people) across the country
- the 111 call centre where the public can report fires and other emergencies
- contact lists and contracts with service providers that we can use in response
- tactical plans (how we plan to respond to a particular site or location)
- community planning, including rural communities
- work with local government around provision of water for firefighting
- response and tactical plans (how we plan to respond to a particular site or location.)
- fire weather data and indices that determine the fire danger rating.

## Response

Response means:

- attending incidents
- taking any actions from the time our communications centres are notified until to the incident controller moves the incident to recovery phase.

For Fire and Emergency, this includes:

- firefighting
- responding to hazardous substance incidents
- rescuing trapped people
- urban search and rescue.

It can also include responding to:

- medical emergencies
- maritime incidents
- other rescues
- weather events and disasters
- incidents where substances present a risk to people, property or the environment
- any other situation where we can assist.

**Note:** This fire plan is not a response related plan.

## Recovery

Recovery means helping people who have suffered loss and trauma to receive the appropriate support. It involves coordinated efforts and processes to bring about the immediate, medium-term and long-term recovery of a community following a major emergency.

For Fire and Emergency, this includes:

- during our immediate actions at emergencies, following good incident management practices that minimise the short-term and long-term impact and consequences of the original event

- helping those immediately affected by the emergency get the support they need, including making sure people suffering loss and trauma receive appropriate support from the relevant agency.

In addition, as a precursor to recovery, we:

- support and encourage communities to pre-plan for major events
- support recovery/clean-up activities to strengthen community resilience following an incident.

## Our commitment to working with Māori as tangata whenua

Fire and Emergency recognises the status of Māori as tangata whenua and, as such, the importance of Māori communities as key stakeholders in Fire and Emergency's work.

We recognise:

- iwi and Māori as community leaders with an important role to play in preventing fires and other emergencies, building community resilience, and informing emergency response
- iwi as our partners in risk reduction as significant and growing land and forest owners
- Māori are disproportionately affected by unwanted fires, and that needs to change.

By committing to working with tangata whenua, we contribute to a safer environment not only for Māori but for all New Zealand communities.

We will do this by building strong relationships that enable us to engage with iwi and Māori as we design and deliver services. This will require us to engage in culturally appropriate ways. We will strengthen our cultural capability, diversity and inclusion, so that we better reflect and engage with the communities we serve.

## National Framework for Fire Control

Not all fires are unwanted. New Zealand has a long history of using fire as a tool, for land management, cooking, recreation, comfort, and warmth.

The National Framework for Fire Control consists of policies, procedures, tools and agreements that enable Fire and Emergency to manage fires. The framework supports people to use fire safely where appropriate and restricts or prohibits its use when there is a risk of unwanted fire.

The public face of the framework is:

- the [Checkitsalright.nz](https://www.checkitsalright.nz) website
- the [fire permit application system](#)
- these fire plans
- additional information on our public website – [fireandemergency.nz](https://www.fireandemergency.nz).

This plan outlines Fire and Emergency's statutory fire control powers and how we can apply them to help reduce risk by:

- setting fire seasons
- prohibiting fire in open air or revoking the prohibition
- prohibiting or restricting activities or revoking the prohibition or restriction
- fire permitting
- control of firebreaks
- fire hazard removal

## Our policies

This table sets out the current internal policies and supporting processes that guide our decisions and actions.

Policy	Detail
Fire seasons, prohibitions and restrictions policy	Relates to sections <a href="#">52 to 58</a> of the Act and decisions to: <ul style="list-style-type: none"> <li>• declare or revoke a prohibited or restricted fire season</li> <li>• prohibit fire in open air or revoke a prohibition</li> <li>• prohibit or restrict activities that may cause a fire to start or spread and revoke prohibition or restriction.</li> </ul>
Fire permitting policy	Supports the policy above and defines actions for: <ul style="list-style-type: none"> <li>• supporting a member of the public who is applying for a fire permit</li> <li>• assessing a fire permit application</li> <li>• granting or renewing a fire permit</li> <li>• refusing to grant or renew a fire permit</li> <li>• suspending or cancelling a fire permit</li> <li>• operational decisions when responding to an alarm of fire in open air.</li> </ul>
Firebreaks policy	Relates to sections <a href="#">62 to 64</a> of the Act to support decisions and actions relating to requirements for landholders to: <ul style="list-style-type: none"> <li>• make and clear any firebreak on the landholder's land</li> <li>• remove any vegetation or other thing from an existing firebreak</li> </ul>
Fire hazard removal policy	Relates to sections <a href="#">65 to 68</a> of the Act and decisions about what to do when: <ul style="list-style-type: none"> <li>• a potential fire hazard is reported to Fire and Emergency</li> <li>• we assess a potential fire hazard</li> <li>• we arrange for the removal or destruction of a confirmed fire hazard.</li> </ul>
Regulatory compliance policy	Covers how we monitor and take action to identify and influence landowners and others to comply with the requirements of the Act and other relevant legislation. This covers activities which: <ul style="list-style-type: none"> <li>• reduce harm from unwanted fire</li> <li>• support the safe use of fire as a land management tool and reduce harm if fire escapes control</li> <li>• minimise avoidance of the Fire Emergency levy</li> <li>• reduce non-compliance with any legislation or regulations under which Fire and Emergency New Zealand has a compliance function.</li> </ul>

## Fire risk conditions

The Act defines the circumstances where we can use our fire control powers to prohibit fire and or restrict other activities as when:

- fire risk conditions exist or are likely to exist in the area; and
- the prohibition or restriction is necessary or desirable for fire control.

We also take these into account when setting fire seasons.

The Act defines fire risk conditions as weather or other conditions that will, or are likely to, endanger persons or property by increasing the risk of the outbreak or spreading of fire.

Decision-makers must be satisfied that:

- fire risk conditions, and potential ignition sources exist, or are likely to exist in the area
- these will endanger people or property by increasing the risk of outbreak or spread of fire.

They make decisions based on evidence, not for the convenience of Fire and Emergency.

This table sets out other fire risk conditions we consider to be fire risk conditions for the purposes of exercising our fire control powers.

Condition	Description
Fire weather science	The NZ Fire Danger Rating System includes measures such as: <ul style="list-style-type: none"> <li>• Build-up Index (BUI)</li> <li>• Initial Spread Index (ISI)</li> <li>• Fire Weather Index (FWI)</li> <li>• Grass curing percentage</li> <li>• Fine Fuel Moisture Code (FFMC)</li> <li>• Drought code (DC).</li> </ul>
Topography	Factors that influence how a fire spreads, including: <ul style="list-style-type: none"> <li>• steepness of slope</li> <li>• direction fire is facing, i.e. aspect</li> <li>• terrain features, e.g. gullies and chimneys.</li> </ul>
Fuel behaviour models	The characteristics of fuel, or vegetation, that contribute to fire ignition and spread.
History of fires	History of recent fires and their ignition sources in the area, based on available fire data.
Socio-economic factors	Factors that influence the likelihood of fires being lit for cooking purposes and to dispose of rubbish in backyards, e.g. absentee owners and lifestyle blocks burning during holiday season. Expectations of the public to be able to light certain types of fires, e.g. cultural cooking fires.
Time of year	Time of year, e.g. land clearing forestry, land clearing hill and high country, late winter to spring.
Public knowledge – awareness of the risks	The expected public awareness of risks may be low, e.g. a large influx of visitors during summer holiday periods who may reasonably be expected to have little understanding of the risks of lighting fires in an area.
Proximity to property or other values	The closeness of property or other valuables to fire, for example: <ul style="list-style-type: none"> <li>• life values, e.g. size of land parcels in an urban area</li> <li>• distance from commercial forestry.</li> </ul>
Ability to respond effectively	Factors that contribute to our ability to respond to an out of control fire include: <ul style="list-style-type: none"> <li>• availability of response resources, i.e. people and equipment</li> <li>• isolation</li> <li>• accessibility issues</li> <li>• availability of water supplies.</li> </ul>
Impacts from natural hazards	Natural hazards impacts are likely to influence resource availability and the likelihood of fires.
People	The presence of people increases the risk of fire.
Impact of other events that increase the risk of the outbreak or spread of fire	Events that increase the risk of potential fire, e.g. the rupture of an oil pipeline.

## Fire seasons

Fire and Emergency uses fire seasons to:

- inform people about the requirements for or restrictions on lighting fires in the open air
- manage the use of fire to protect communities from the consequences of unwanted fire.

There may be other legal requirements and regulatory approvals needed for a fire under other legislation, such as the [Resource Management Act 1991](#), or Council by-laws. It is your responsibility to comply with all other legislation and get all other necessary approvals.

Fire and Emergency can declare or revoke a prohibited or restricted fire season in an area. We use our fire seasons, prohibitions and restrictions policy and associated processes (including stakeholder and partner consultation) to manage this.

Fire seasons are applied to geographic zones based on:

- the fire environment (fuel types, fuel condition (curing/dryness), weather, topography, historic trends)
- fire climatic zones
- topographical boundaries/features (rivers, roads, coastlines, forest and national park boundaries)
- fire control considerations.

There are three types of fire season is in force at any time in an area or zone:

### Open fire season



Open fire seasons are for periods when conditions enable people to safely use fire and manage the risks themselves. There is still a requirement to not cause or allow a fire to get out of control or leave a fire smouldering in a way that increases the likelihood of harm or damage arising from the start or spread of fire.

### Restricted fire season



Lighting a fire is riskier than usual and you must get a fire permit. This permit may also have specific conditions to make sure you can light a fire safely and it will remain under control.

### Prohibited fire season



Lighting fires in the open air is not permitted. Existing fire permits are suspended, though fire permits may still be granted in exceptional circumstances.

It is important that people know what the current fire season is and understand how they can comply with the requirements.

To see what the current fire season is within a local area (or zone within an area) go to [checkitsalright.nz](https://checkitsalright.nz).

## Open fire seasons

We use an open fire season when the fire danger is consistently low enough that Fire and Emergency does not need to apply additional controls on when people can light fires in the open air. To help you to use fire

safely, we have a set of guidelines for fire types that you should follow even when there are no restrictions or prohibitions in place, see the [Authorised fire types, descriptions and conditions table](#) below for guidance.

Note that this does not mean that you can light fires anywhere you want to. You should still check the conditions at [checkitsalright.nz](https://checkitsalright.nz) and follow any advice provided.

Those lighting a fire have a duty of care to ensure that fire remains under control and is fully extinguished once complete. [Section 60 \(1\)](#) of the Act requires this: 'A person must not cause or allow a fire to get out of control and to spread to vegetation or property.'

Other legislation or regulatory requirements, such as local council or regional council by-laws or air quality plans, may apply additional restrictions, or not allow you to light a fire at all.

You must also have permission from the landowner or occupier to light a fire, even in an open fire season.

We still like to hear from you if you are lighting a large fire, e.g. for land management, so that we can share advice on how and when to light and use your fire safely. Go to our [Fire Permit website](#). Select **Lighting a fire in an open season** and complete the address info or use the map. Once the address information updates and confirms an Open fire season, select the **Notify Us of your fire button** at the bottom of the screen and complete the form.

This also helps us manage notifications about your fire that might be made by members of the public.

## Restricted fire seasons

We use restricted fire seasons when the fire danger has increased enough that we need more control over where, when and how people use fire.

Requiring permits for particular types of fires in the open air lets us know where and when fire is being used. This means our fire brigades don't need to respond unnecessarily.

It also gives us an opportunity to advise how to light and use the fire safely. We can also apply conditions about when the fire can be lit, how big it can be, or any other requirements that reduce the chance of the fire escaping control. Go to [firepermit.nz](https://firepermit.nz) to check and apply

**Note:** When you get a permit, it's important to read and follow the conditions of that permit.

## Prohibited fire seasons

When the fire danger reaches higher levels, we need to stop people from lighting fires that may escape. Fire behaviour during these conditions makes fires very difficult and dangerous to contain, control and extinguish.

Certain types of fires may still be used, but people need to be very careful with fire during these times. See the section on [Authorised fire types in a prohibited fire season](#).

## Trigger thresholds for changing fire seasons

The New Zealand Fire Danger Rating System and its component Fire Weather System are a consistent, scientific way to monitor the fire danger in an area.

Trigger thresholds are based on relevant fire weather measurements and values. They are set in consultation with stakeholders for declaring restricted and prohibited fire seasons within the fire plan area or fire season zone within that area. The trigger thresholds identify when prevailing weather conditions create ongoing potential for problem fires.

The trigger thresholds use:

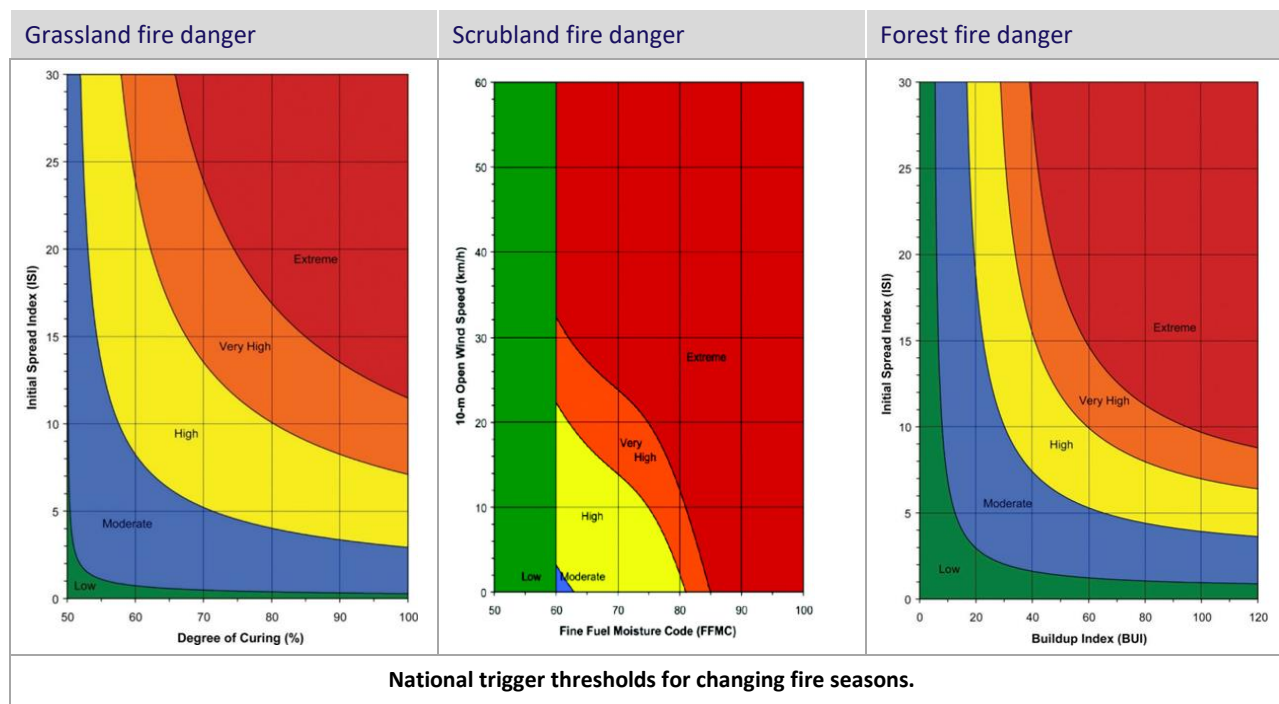
- the Remote Automatic Weather Station (RAWS) climatology data for the fire plan area or zone.
- historical fire data for the fire plan area or zone.



Other factors, such as consultation with partners, resource availability or other emergency events, may also influence a decision to declare or revoke a fire season earlier or later than the trigger threshold would indicate.

Forecast weather trends must be taken into consideration when declaring a change in fire season. An upcoming rain event may defer a change in fire season or forecast dry weather. Strong winds may indicate a need to change fire season days before the trigger threshold would otherwise be reached.

Locally agreed thresholds will be listed in the zone information in this document.



## Prohibiting fires in open air (section 52)

Fire and Emergency may sometimes need to prohibit fires in the open air outside the usual fire season changes. These occasions are known as Extreme fire, Red Flag Days or Cross-Over conditions. Examples of these activities include but are not limited to:

- during large or multiple incidents that put firefighting resources under strain
- when extreme fire weather conditions occur during a restricted fire season, e.g. strong dry winds, high temperatures associated with very low humidity
- when emergency events occur, e.g. a rupture of the Marsden Point fuel pipeline, increasing the fire hazard in a specific area.

We can only prohibit fires in the open air when fire risk conditions exist or are likely to exist that indicate that the prohibition or restriction is necessary or desirable for fire control.

Fire and Emergency may also prohibit fires in the open air while any pandemic support legislation, such as the [Epidemic Preparedness \(COVID-19\) Notice 2020](#), is in force. Fire and Emergency can do this without needing to consider fire risk conditions or other factors. This might happen if our response capabilities are affected by any pandemic, and we aren't able to respond effectively if there is an unwanted fire.

Fire and Emergency can create temporary zones that are smaller than the zones in this fire plan for the purposes of limiting the impact of prohibiting fires in open air under [section 52](#) of the Fire and Emergency New Zealand Act 2017.

If someone breaches the ban, they can be charged under [section 54](#) of the Act.

## Trigger thresholds for prohibiting fire in open air

We can use the same Fire Weather System trigger thresholds for prohibiting fires in the open air under [section 52](#) as we do for changing to a prohibited fire season, but use [section 52](#) when the fire risk conditions are not expected to last long enough to make changing to a prohibited fire season practical.

If Fire and Emergency has come to an agreement with stakeholders on other thresholds for when to implement a [section 52](#) prohibition of fire in open, these will be included in the zone information in this document.

## Restricting and prohibiting activities (section 52)

There are times when fire risk conditions are elevated to an extent that certain activities may cause a fire to start or spread. These occasions are known as Red Flag Days or Cross Over conditions. Examples of these activities include but are not limited to:

- roadside mowing
- ‘hot works’ – cutting or welding operations outdoors using portable gas, disc grinder or arc welding equipment that produces sparks, flames or heat
- chainsaw use or scrub-cutting
- mowing, ploughing or harrowing fields
- use of retail fireworks and, in certain conditions, pyrotechnics (See the [Retail fireworks](#) and [Pyrotechnics](#) sections below)

[Section 52](#) of the Act allows us to prohibit or restrict one or more activities in an area or areas when we assess that:

- the activity (including access to an area) may cause a fire to start or spread and adequate controls are not available
- [fire risk conditions](#) exist or are likely to exist in the area
- the prohibition or restriction is necessary or desirable for fire control purposes
- it’s not possible to adequately mitigate the assessed risk.

This table defines prohibition and restriction.

When an activity is...	It means the activity...
Prohibited	must not be undertaken at all by any person while the prohibition is in effect (except if it is an excluded activity that relates to the carrying out of essential services in the area).
Restricted	can be undertaken subject to certain conditions, such as restrictions on: <ul style="list-style-type: none"> <li>• the times of the day</li> <li>• the manner in which it is undertaken.</li> </ul>

If we have restricted or prohibited access to a location under [section 52](#), we can’t prevent someone who lives or works in the location from entering. [Section 52](#) also doesn’t prevent someone from carrying out essential services where it applies.

Essential services are:

- supplying and distributing of food, water, fuel, power, and other necessities
- maintaining transport and communication facilities that are essential to the well-being of the community
- maintaining the health of the community
- maintaining law and order, public safety, and the defence of New Zealand
- preserving property at immediate risk of destruction or damage.

Fire and Emergency can create temporary zones that are smaller than the zones in this fire plan for the purposes of limiting the impact of restricting or prohibiting activities under [section 52](#).

If someone fails to comply with the restriction or prohibition, they can be charged under [section 54](#) of the Fire and Emergency New Zealand Act 2017.

## Trigger thresholds for restricting or prohibiting activities under section 52

Some industries have their own restrictions that they place on themselves when fire risk increases. However, we will use [section 52](#) to apply the restrictions or prohibitions to everyone within the zone when either:

- these voluntary restrictions are not enough to reduce the risk of a fire starting or spreading, or
- we need to restrict or prohibit the public from the same high risk activities.

Our policy for fire seasons, prohibitions and restrictions says that we only prohibit or restrict activities if:

- we have engaged with stakeholders
- they are unable to satisfactorily mitigate the identified risks.

Legally restricting or prohibiting activities can have a significant economic impact, so we won't do it without due consideration.

If we've agreed with stakeholders on set thresholds for implementing a [section 52](#) restriction or prohibition, we'll include these in the zone information in this document.

## Activities and risk mitigation

### Forestry operations

The NZ Forest Owners Association have developed the [Forest Fire Risk Management Guidelines \(2018\)](#) which contains example trigger point tables and what fire prevention actions are suggested during different fire danger levels. Fire and Emergency supports these guidelines.

The National Environmental Standard – Commercial Forestry (NES-CF) regulations and SCION research confirms that the risk of heating and spontaneous combustion in slash can be reduced by eliminating embedded rubbish (metal), monitoring depth and compaction of slash piles and local fire environment conditions.

If local trigger values have been set, they will be listed in the zone information in this document. NIWA's fire weather website [www.fireweather.niwa.co.nz](http://www.fireweather.niwa.co.nz) will be updated to display the levels decided locally.

### Powerline auto-reclosers

Most power companies use a computer-controlled auto recloser system. This attempts to reconnect the power up to three times after a fault, before they send a technician. If a downed wire caused the fault, this creates three potential sparking events.

If local trigger values have been set, they will be listed in the zone information in this document. NIWA's fire weather website [www.fireweather.niwa.co.nz](http://www.fireweather.niwa.co.nz) will be updated to display the levels decided locally.

To comply with the [Electricity \(Hazards from Trees\) Regulations 2003](#), power companies also take other risk reduction measures. These include trimming trees around power lines, reporting faults to the public, putting power lines underground, and giving guidance on tree planting.

### Hot works

This includes activities such as welding, grinding, and metal cutting.

If local trigger values have been set, they will be listed in the zone information in this document. NIWA's fire weather website [www.fireweather.niwa.co.nz](http://www.fireweather.niwa.co.nz) will be updated to display the levels decided locally.

Fire and Emergency will work with Waka Kotahi (NZTA) and local councils on roadside mowing issues during days with elevated fire danger and changing operations to suit conditions.

We will also work with rural land managers to discuss the approach to fire measures, using machinery and equipment during high fire danger periods and the potential effect on local landholders and communities.

### **Retail fireworks and pyrotechnics**

Fire and Emergency does not regulate the use of fireworks or pyrotechnics when fire risk conditions are not elevated.

The term 'firework' is reserved for retail fireworks that are specifically sold to the public. A display of 'fireworks' does not require written agreement from Fire and Emergency. However, pyrotechnics are classed as a hazardous substance and must be under the control of a person who holds a certified handler compliance certificate for the substances they are working with. This person must get written approval from Fire and Emergency before they hold a display.

When fire risk conditions are elevated, Fire and Emergency can restrict or prohibit the use of fireworks, and in certain circumstances, pyrotechnics, as an activity under [section 52](#) of the Fire and Emergency New Zealand Act 2017.

#### **Fireworks**

Sale of fireworks is regulated by the [Hazardous Substances \(Fireworks\) Regulations 2001](#). Storage is regulated by the [Health and Safety at Work \(Hazardous Substances\) Regulations 2017](#).

Council by-laws may limit where and when fireworks may be used.

Whether fireworks should be banned is a decision for Government, and our work related to fireworks will continue to reflect decisions made by central Government.

Fire and Emergency is responsible for promoting fire safety, so we advise the public on using fireworks safely. We recommend people attend publicly organised displays where possible.

#### **Pyrotechnics**

Applications for indoor and outdoor pyrotechnic displays need to comply with sections [9.35](#) and [9.43](#) of the Health and Safety at Works (Hazardous Substances) Regulations 2017.

The person in charge of a pyrotechnics display must get written agreement from Fire and Emergency before holding the display.

The exception to requiring written agreement is for a class 1 category G pyrotechnic display. This is where the pyrotechnics are used for special effects (e.g. film set) and there is no intention to display them to the public.

Fire and Emergency is not an enforcement agency for hazardous substances.

Fire and Emergency's agreement or otherwise to a specific pyrotechnic display proceeding will be determined in accordance with Fire and Emergency's policy and standard operating procedures relating to the same.

Sometimes, after we consider the relevant risk conditions in a particular area, we may decide that, even where the requirements of the Health and Safety at Work (Hazardous Substances) Regulations 2017 could be met in terms of controlling fires igniting within an exclusion zone, the risk to the surrounding area outside of any exclusion zone nevertheless requires a prohibition or restriction of pyrotechnic displays generally under [section 52](#). However, we are only likely to do this in situations where, for example, the terrain, weather and substrate are such that there is a risk of a pyrotechnic display causing fire to ignite outside of any exclusion zone in the area.

## Communicating changes in fire seasons and restrictions or prohibitions

It's important that people planning to light fires in the open air know whether they can do so safely and legally. This means they need to know:

- the current fire season in the area
- whether any other prohibition applies
- whether a permit is required.

We notify our communities, stakeholders and partners of fire season changes and restrictions and prohibitions under [section 52](#) of the Act in several ways. These include:

- direct contact with our partners and stakeholders, including email
- local newspaper and radio ads
- social media and media
- email and text directly to permit holders
- on the Check It's Alright website [checkitsalright.nz](https://checkitsalright.nz)
- via information available by phoning 0800 658 628
- with fire danger or fire season signs – we change these to reflect season status by adding 'Fire by permit only', 'Total fire ban' or similar messaging.

During periods of elevated and extreme fire danger days, we increase our communication of fire safety and prevention messages. This is to build awareness of the dangers of wildfires and promote positive behaviour changes. Since fire danger/fire risk conditions are locally specific, Districts will make local decisions about the best ways to communicate this to their communities.

We can also target messaging using traditional and digital media, such as social media and on-demand video, at affected areas at the most effective times.

When a fire season change affects public conservation land (PCL), we must also notify the Department of Conservation (DOC) if we intend to declare or revoke a prohibited or restricted fire season on public conservation land. This must also be followed up with a written notification.

Department of Conservation informs visitors of the controls or bans on lighting fires, including for cooking, warmth and campground fires, through notices and advertising.

## Fire permits

The information included with a fire permit helps people understand how to light a fire safely and to reduce the risk of their fire burning out of control. Fire permits carry conditions which vary based on the type and size of the proposed fire, along with the current local fire risk conditions. To check and apply for a fire permit, visit [firepermit.nz](https://firepermit.nz).

Fire risk conditions vary by time and other factors such as fuel, weather and topography, so the acceptable conditions for burning are set for each fire permit.

We may also suspend or cancel fire permits in certain circumstances, such as:

- where fire risk conditions change
- for fire control purposes
- as fire seasons change or we imposed prohibitions.

Under [section 190\(8\)](#) of the Act, granting a fire permit does not impose any liability on Fire and Emergency.

## Council by-laws, regional plans, legal covenants, or restrictions

Fire and Emergency must only consider the fire risk conditions when issuing permits. We can't apply other organisations' requirements, so even if we've issued a fire permit, you may still not be allowed to light your fire due to other requirements.

Even if you don't need a fire permit from us, due to an open fire season etc., you may not be able to light fires in some places. You must also follow council by-laws and regional plan rules relating to smoke and air pollution.

Managing smoke nuisance comes under local government jurisdiction and not Fire and Emergency's, unless the smoke is an immediate threat to life. However, we will still promote good practice and suggest alternatives.

There may also be legal covenants or restrictions which restrict the ability to light a fire in some areas, regardless of the fire season – for example, if there are power pylons or other infrastructure nearby.

You will also need private landowner or occupier approval before lighting a fire, even if Fire and Emergency has issued a fire permit.

If there is signage in a location that says to light no fires or equivalent, then you must follow those instructions.

Where relevant, information about applicable bylaws and regional plans is included in the area overview of this document.

## When a permit is needed

The need for a fire permit is based on the:

- type of fire
- fire season, or restrictions or prohibitions on fires in the open air.

## Fire types

Some fire types may be allowed in restricted and prohibited fire seasons by making them:

- authorised (no permit required)
- permit required

For more information on fire types, see [Open air fires – rules and permits](#) on the Fire and Emergency website [www.fireandemergency.nz](http://www.fireandemergency.nz).

## Authorised fire types, descriptions and conditions in a restricted fire season

This table lists the fire types that are authorised in a restricted season and the conditions for using them. As long as people using these fire types in a restricted season meet these conditions, they don't need to get a fire permit, because Fire and Emergency doesn't consider them to be fires in open air.

Fire type	Description and conditions
Gas-operated appliances	Manufactured gas-operated appliances, such as barbecues, outdoor fireplaces and outdoor gas heaters. Find out more about the safe use of <a href="#">Gas BBQs, cookers and heaters</a> .
Charcoal barbecues or grills	Barbecues or grills that use either charcoal briquettes or natural lump charcoal as their fuel source. <b>Conditions</b> <ul style="list-style-type: none"> <li>• Don't use on an apartment balcony, deck, under a roof overhang or within other enclosed areas.</li> <li>• You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away.</li> <li>• You must not leave the fire unsupervised while burning</li> </ul> If you cannot meet this condition, you must apply for a permit.

Fire type	Description and conditions
Open-top liquid fuel cooker	<p>Examples include (but are not limited to) portable smokers.</p> <p>These are usually small portable cooking devices that are liquid-fuelled with an open fuel container either under or in the cooking device.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Must be on a non-combustible area/base.</li> <li>• You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away.</li> <li>• Don't light your fire within 3 metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• You must not leave the fire unsupervised while burning.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>
Non-pressurised liquid-fuelled heaters	<p>Examples include (but are not limited to) frost pot, smudge pot, diesel heater.</p> <p>Usually fuelled by diesel, vegetable oil, kerosene or waste oil.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Must be at least 3 metres clear of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• Must be placed on a non-combustible surface, not directly on grass or wooden decks.</li> <li>• You must not use the heater in small, confined areas.</li> <li>• If refuelling, ensure heater has cooled down before refilling.</li> <li>• You must not leave the fire unsupervised while burning.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>
Permanent outdoor fireplace Wood-fired pizza oven/wood oven	<p>Purpose-built or manufactured woodburning fireplace/wood oven with an open front and a vertical smoke vent/chimney.</p> <p>Generally constructed of concrete, concrete blocks, stone, or bricks, fixed in place (not mobile/movable).</p> <p>Usually in home outdoor entertaining areas.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Must have a non-combustible hearth or base that extends a minimum of 500 mm either side of the left and right edges and a minimum of 1 metre from the front edge of the fire box. This is to stop any burning material falling from the fire box landing onto anything combustible.</li> <li>• Smoke vent/chimneys must have a purpose-built manufactured cap, or maximum of 5 millimetre steel mesh fitted in the top to stop any hot ash or embers from escaping.</li> <li>• Firewood storage must be in areas not affected by heat from the fire and clear of any possible hot ash or ember-affected areas.</li> <li>• You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away.</li> <li>• You must not leave the fire unsupervised while burning, or</li> <li>• It must have a solid or mesh screen/door that prevents any burning material from escaping the fire box.</li> <li>• Fireplaces with external construction made of steel must be at least 1 metre clear of any part of a building, hedge, shelter belt or any other combustible material.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>

Fire type	Description and conditions
Movable/ portable free- standing front- loading fireplace.	<p>Examples include (but are not limited to) <b>chiminea</b>.</p> <p>A freestanding front-loading fireplace or oven, usually with a bulbous body – usually has a vertical smoke vent or chimney.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Don't light your fire within 3 metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away.</li> <li>• You must not leave the fire unsupervised while burning or</li> <li>• It must have a solid or mesh screen/door that prevents any burning material from escaping the fire box.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>
Cultural cooking fires	<p>Examples include hāngī, umu and lovo.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Your fire area must be less than 4 square metres.</li> <li>• Don't light your fire within 5 metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• You must have a suitable way to extinguish it within easy reach – a maximum of 5 metres from your cultural fire.</li> <li>• You must not leave the fire unsupervised while burning.</li> <li>• On completion of cooking or the purpose required for cooking food the fires must be extinguished.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p> <p>Find out more about the safe use of <a href="#">Cultural cooking fires</a>.</p>
Braziers Fire pits/bowls (Recreational)	<p>Brazier: a container for hot coals – usually an upright standing or hanging metal bowl or box.</p> <p>Fire pit/bowl: a pit dug in the ground, made from stone, brick or metal, or a bowl on an upright stand.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Your fire area must be less than 1 square metre.</li> <li>• Where hot embers/ash are able to escape, there must be a non-combustible base/tray that will contain these hot embers or ash, to prevent any risk of fire escaping.</li> <li>• Don't light your fire within 3 metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• You must have a suitable way to extinguish it within easy reach – a maximum of 5 metres from your brazier or fire pit/bowl.</li> <li>• You must not leave the fire unsupervised while burning.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>
Manufactured or drum incinerators	<p>A drum or container, with a mesh or solid lid designed to prevent the escape of hot ash or fire, often with a vertical smoke vent or chimney; designed exclusively for incineration.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Don't light your fire within 5 metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• You must have a suitable way to extinguish it within easy reach – a maximum of 5 metres from your incinerator.</li> <li>• Smoke vent/chimneys must have a purpose-built manufactured cap or maximum of 5-millimetre steel mesh fitted in the top to stop any hot ash or embers from escaping.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>



## Authorised fire types on public conservation land in a restricted fire season

This table lists the fire types that are authorised on public conservation land (PCL) in a restricted fire season and the conditions for using them. As long as people using these fire types in a restricted season meet these conditions, they don't need to get a fire permit, because Fire and Emergency doesn't consider them to be fires in open air.

Fire type	Description and conditions
Gas-operated appliances	<p>Manufactured portable gas-operated appliances, such as butane tramping stoves, gas barbeques and outdoor gas heaters.</p> <p>Find out more about the safe use of <a href="#">barbeques and gas cylinders</a> and <a href="#">outdoor gas-operated appliances</a>.</p> <p><b>Conditions</b></p> <p>The gas-fire must not be:</p> <ul style="list-style-type: none"> <li>lit if the appliance is not in full operational condition in accordance with the manufacturer's specifications</li> <li>lit unless on a flat, level surface, stable and solid enough to support the weight of the appliance plus any containers and food used during cooking</li> <li>lit unless at least one metre clear of all combustible material</li> <li>lit in conditions where wind or other factors may cause the fire to spread to surrounding flammable material</li> <li>left unsupervised while flame is present.</li> </ul>
Pressurised liquid appliances	<p>Manufactured portable liquid cookers which use liquid under pressure to fuel the cooker. The type of liquid is not specific (e.g. White spirits, kerosene or methylated spirits) but the delivery mechanism is.</p> <p><b>Note:</b> This excludes <a href="#">cookers using an open top, non-pressurised system</a>.</p> <p><b>Conditions</b></p> <p>The pressurised liquid fire must not be:</p> <ul style="list-style-type: none"> <li>lit if the appliance is not in full operational condition in accordance with the manufacturer's specifications</li> <li>lit unless it is on a flat, level surface, stable and solid enough to support the weight of all the appliance parts plus any containers and food used during cooking</li> <li>lit unless at least one metre clear of all combustible material</li> <li>lit in conditions where wind or other factors may cause the fire to spread to surrounding flammable material</li> <li>left unsupervised while flame is present and/or the liquid is still turned on.</li> </ul>
Campfires in a permanent fireplace	<p>Positioned and constructed by the Department of Conservation (DOC) to minimise the threat of fire spread and located within formally established DOC overnight campsites or daytime amenity areas.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>The campfire in a permanent fireplace must not be:</li> <li>lit if the fireplace has any damage that could allow the fire, hot embers, or ash to escape and spread beyond the constructed fireplace</li> <li>within three metres of any combustible material</li> <li>lit where notices and advertising are present which specifically prohibit the lighting of fires</li> <li>lit during a prohibited fire season</li> <li>lit in conditions where wind or other factors may cause the fire to spread to surrounding flammable material</li> </ul>

Fire type	Description and conditions
	<ul style="list-style-type: none"> <li>• left unsupervised while burning and without the ashes being fully extinguished</li> <li>• used to burn rubbish.</li> </ul>
Cooking and warming fires	<p>Small, open outdoor wood-burning fires are only permitted to be lit on PCL in remote areas and only if required for essential cooking or survival purposes. As a guide, remote areas for this purpose are considered to be at least 3km from the nearest public road, public vehicle easement accessway or publicly accessible jetty or wharf.</p> <p>Additionally, fires must not be lit in locations fitting the freedom camping criteria, as defined in the <a href="#">Freedom Camping Act (2011)</a>.</p> <p><b>Conditions</b></p> <p>The cooking and warmth fire must not be:</p> <ul style="list-style-type: none"> <li>• more than 0.5 m diameter x 0.5 m height (including wood and flames)</li> <li>• within three metres of any tree or any place underneath overhanging vegetation; and</li> <li>• within three metres of any log or any dry vegetation</li> <li>• lit unless and until the ground surface within three metres of the site of the fire has been cleared of all combustible material</li> <li>• lit where notices and advertising are present which specifically prohibit the lighting of fires or specify the lighting of fires only in other types of receptacles or places</li> <li>• lit in National Parks which have bylaws prohibiting the lighting of wood burning fires in the open air</li> <li>• lit during a prohibited fire season</li> <li>• lit in conditions where wind or other factors may cause the fire to spread to surrounding flammable material</li> <li>• left unsupervised without the ashes being fully extinguished</li> <li>• used to burn rubbish.</li> </ul> <p><b>Note:</b> This only applies to small open fires (as described above). Solid fuel fires, front loaded portable fires, non-gas barbecues or chimineas are all <b>prohibited</b> fire types on Public Conservation Lands at all times.</p> <p>Find out more about the safe use of <a href="#">campfires</a>.</p>

## Authorised fire types, descriptions and conditions in a prohibited fire season

This table lists the fire types that are authorised in a prohibited season and the conditions for using them. As long as people using these fire types in a prohibited season meet these conditions, they don't need to get a fire permit, because Fire and Emergency doesn't consider them to be fires in open air.

Fire type	Description and conditions
Gas-operated appliances	<p>Manufactured gas-operated appliances, such as barbecues, gas outdoor fireplaces and outdoor gas heaters.</p> <p><b>Conditions</b></p> <p>Find out more about the safe use of <a href="#">Gas BBQs, cookers and heaters</a>.</p>
Charcoal barbecues or grills	<p>Barbecues or grills that use either charcoal briquettes or natural lump charcoal as their fuel source.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Don't use on an apartment balcony, deck, under a roof overhang or within other enclosed areas.</li> <li>• You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away.</li> <li>• You must not leave the fire unsupervised while burning.</li> </ul> <p>If you cannot meet these conditions, you must not light the fire.</p>
Open top liquid fuel cooker	<p>Examples include (but are not limited to) portable smokers.</p> <p>These are usually small portable cooking devices that are liquid-fuelled with an open fuel container either under or in the cooking device.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Must be on a non-combustible area/base.</li> <li>• You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away.</li> <li>• Don't light your fire within 3 metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• You must not leave the fire unsupervised while burning.</li> </ul>
Non-pressurised liquid-fuelled heaters	<p>Examples include (but are not limited to) frost pot, smudge pot, diesel heater.</p> <p>Usually fuelled by diesel, vegetable oil, kerosene or waste oil.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Must be at least 3 metres clear of any of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• Must be placed on a non-combustible surface, not directly on grass or wooden decks.</li> <li>• You must not use the heater in small, confined areas.</li> <li>• If refuelling, ensure heater has cooled down before refilling.</li> <li>• You must not leave the fire unsupervised while burning.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>

Fire type	Description and conditions
Permanent outdoor fireplace Wood-fire pizza oven/wood oven	<p>Purpose-built or manufactured woodburning fireplace/wood oven with an open front and a vertical smoke vent/chimney.</p> <p>Generally constructed of concrete, concrete blocks, stone, or bricks, fixed in place (not mobile/movable).</p> <p>Usually in home outdoor entertaining areas.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Must have a non-combustible hearth or base that extends a minimum of 500 mm either side of the left and right edges and a minimum of 1 metre from the front edge of the fire box. This is to stop any burning material falling from the fire box landing onto anything combustible.</li> <li>• Smoke vent/chimneys must have a purpose-built manufactured cap, or maximum of 5-millimetre steel mesh fitted in the top to stop any hot ash or embers from escaping.</li> <li>• Firewood storage must be in areas not affected by heat from the fire and clear of any possible hot ash or ember-affected areas.</li> <li>• You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away.</li> <li>• You must not leave the fire unsupervised while burning, or</li> <li>• It must have a solid or mesh screen/door that prevents any burning material from escaping the fire box.</li> <li>• Fireplaces with external construction made of steel must be at least 1 metre clear of any of any part of a building, hedge, shelter belt or any other combustible material.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>
Movable/ portable free-standing front-loading fireplace.	<p>Examples include (but are not limited to) <b>chiminea</b>.</p> <p>A freestanding front-loading fireplace or oven, usually with a bulbous body – usually has a vertical smoke vent or chimney.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Don't light your fire within 3 metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• You must have a suitable way to extinguish that will easily reach it, a maximum of 5 metres away.</li> <li>• You must not leave the fire unsupervised while burning or</li> <li>• It must have a solid or mesh screen/door that prevents any burning material from escaping the fire box.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p>
Cultural cooking fires	<p>Examples include hāngi, umu and lovo.</p> <p><b>Conditions</b></p> <ul style="list-style-type: none"> <li>• Your fire area must be less than 4 square metres.</li> <li>• Don't light your fire within 5 metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• You must have a suitable way to extinguish it within easy reach – a maximum of 5 metres from your cultural fire.</li> <li>• You must not leave the fire unsupervised while burning.</li> <li>• On completion of cooking or the purpose required for cooking food the fires must be extinguished.</li> </ul> <p>If you cannot meet these conditions, you must apply for a permit.</p> <p>Find out more about the safe use of cultural cooking fires – <a href="https://fireandemergency.nz">fireandemergency.nz</a> &gt; <a href="#">Traditional or cultural use of fire</a>.</p>

## Authorised fire types on public conservation land in a prohibited fire season

This table lists the fire types that are authorised on public conservation land (PCL) in a prohibited fire season and the conditions for using them. As long as people using these fire types in a prohibited season meet these conditions, they don't need to get a fire permit, because Fire and Emergency doesn't consider them to be fires in open air.

Fire type	Description and conditions
Gas-operated appliances	<p>Manufactured gas-operated appliances, such as barbeques, outdoor fireplaces and outdoor gas heaters.</p> <p>Find out more about the safe use of <a href="#">Gas BBQs, cookers and heaters</a>.</p>

## Permits in prohibited fire seasons or during prohibitions under section 52

Fire and Emergency may grant permits:

- during a prohibited fire season, or
- when there is a prohibition under [section 52](#) of the Act but the fire or activity is necessary to prevent, reduce, or overcome any hazard to life or because of any other serious emergency.

**Note:** Fire and Emergency may grant permits for the purposes of assisting compliance with other legislation such as Bio-security measures. For example:

The Management Agency for the American Foulbrood (AFB) Pest Management Plan implements the Biosecurity (National American Foulbrood Pest Management Plan) Order 1998.

- Where AFB is discovered, beekeepers have an obligation within 7 days of becoming aware of that case to destroy all honeybees, bee products, and appliances associated with that infected honeybee colony by burning.
- If it's a PROHIBITED fire season – Fire and Emergency New Zealand will promptly (24hrs) produce a District Manager-approved special Fire Permit to Burn during a prohibited season, under biosecurity emergency response status.

Permits issued in a prohibited fire season (e.g. for biosecurity reasons) remain active when the fire season changes.

## Applying for a permit

To check if a fire permit is required, use the website [checkitsalright.nz](#). If you need a permit, this site will automatically take you to the fire permits website.

When you know you need a fire permit, you can apply:

- online through Fire and Emergency's fire permitting system – [firepermit.nz](#)
- over the phone – 0800 658 628. Your application is then completed in the online system on your behalf
- in person, by asking local Fire and Emergency fire permitting personnel for a fire permit
- by email or post, using the manual [fire permit application form](#). You can print and complete the form by hand or complete the editable pdf and send it back to us.

## Assessment

The fire permit assessors will make a risk-based decision about whether a desk-based assessment or an on-site inspection of the burn location is required before deciding to grant or refuse the fire permit.

**Note:** Where an application has multiple burn locations, they must consider each location.

The assessor must inspect a permit applications if:

- they have insufficient information to make a desk-based assessment, or

- where any of the following apply to the proposed fire:
  - it is during a prohibited fire season
  - it requires a burn plan
  - it is in a location where the predominant fuel type is considered to be of high flammability
  - it is in a location that is adjacent to areas of significant commercial or environmental values
  - it involves multiple fires burning at the same time in different locations on a property
  - it is located on steep or complex terrain
  - it involves burning large amounts of material unless the applicant has a history of successfully managing similar fires.

The follow additional factors can be considered to be fire risk conditions or relevant fire control matters:

- The environment around the burn site
- The actual site area and boundaries of the proposed burn
- Other property and/or values at risk from a possible escaped fire
- Other relevant hazards
- Time of ignition, light-up sequence and method of the proposed fire
- Potential fire behaviour and rate of fire spread
- Firebreaks around the area to be burnt
- Resources available to carry out the burn safely and effectively
- The applicant's understanding of the risks associated with the proposed fire, and their ability to manage those risks effectively.

Prescribed burn plans may be required for complex and higher-risk burns, e.g. land clearing. They help the person proposing to burn to:

- go through a planning process
- consider how to undertake the proposed fire safely.

The applicant is responsible for developing the [prescribed burn plan](#). However, we can advise them what the plan should contain to carry out the proposed fire safely.

## Mandatory conditions

Every permit must contain standard conditions that are required by the [Fire and Emergency New Zealand \(Fire Permits\) Regulations 2017](#) and cannot be removed. These are:

- You must not light a fire in fire risk conditions that make it likely that the fire will spread beyond the limits of the location or property specified in the permit as the location of the fire.
- If this permit was issued for a proposed fire in an area which is in a restricted fire season:
  - it is suspended if we declare a prohibited fire season or prohibit fire in open air
  - you must, immediately before lighting a fire, make reasonable efforts to confirm that, in the location of the fire:
    - no prohibited fire season is in place; and
    - no prohibition on the lighting of fires in open air is in place.

If the fire permit is issued when fire has been prohibited in open air ([section 52](#) (1) of the Act) the following condition must be included on the permit:

- immediately before lighting a fire you must make reasonable efforts to confirm that no restricted or prohibited fire season under [section 56](#) (1) of the Act is in place in the location of the fire. Use [Checkitsalright.nz](#).

The permit will also include a condition to notify the Communications Centre immediately before lighting the fire. For example:

- notify us before lighting the fire using the text code or email links provided or at <https://www.firepermit.nz/FENZ/Default.aspx>.
- call Southern fire communications on 03 341 0266.

For fire permits where the public are likely to notice the fire call 111, we prefer you notify us electronically.

For example, where the fire:

- is close to a road, or to other houses or buildings
- covers a large area, such as land clearing.

During an open fire season, you can notify us by contacting the fire communications centre, or preferably by clicking **Need to notify us** on [firepermit.nz](https://www.firepermit.nz) and completing the **Permit Activation** form.

These notifications are flagged within the call centre system, so if they get a 111 call, it's clear there is a permitted/controlled fire.

## Firebreaks

Fire and Emergency has the authority under [section 62](#) of the Act to require landholders to make or clear firebreaks on the landholder's land or keep them clear if we think it's needed for fire control. This can include green firebreaks, or strips of lower flammability or removing all vegetation down to mineral earth

Sections [63–68](#) of the Act explain appeal provisions and compliance pathways.

We use our [Firebreaks policy and guideline](#) to apply the relevant science-based calculation to check if a fire break is the right solution. The policy guides us on working closely with affected landholders to work towards a voluntary solution.

Fire and Emergency has powers to:

- require compliance
- make or clear any firebreak
- issue an infringement notice if compliance is not reached voluntarily.

**Note:** This power relates to making and clearing firebreaks outside of incident response – before a fire happens. Our powers during response in [section 43](#) allow us to create firebreaks as needed to prevent the spread of fire.

## Fire hazard removal

Sometimes, Fire and Emergency reasonably considers that vegetation, or some other thing, is a fire hazard, meaning that it is likely to endanger people or property by increasing the risk of outbreak or spread of fire. In these situations, we can require that the vegetation or thing be removed or destroyed.

We will work with affected people to fix the issue first, but we're authorised under [section 65](#) of the Act to legally require action. You then have one month to fix the problem, although you can appeal against the requirement. You must appeal within 14 days and your appeal will be handled through Fire and Emergency's dispute resolution scheme.

Our fire hazard removal powers apply to anything on the land, but not to anything on or inside a building. Local councils have the authority to address fire risk related to buildings, such as hoarding.

If it's urgent (an imminent danger) we can tell you, and immediately fix the problem ourselves to keep people and property safe.

## Reporting fire hazards

Anyone who becomes aware of a fire hazard, or is worried that something is a fire hazard, can report it to Fire and Emergency.

To do this:

1. Go to [Fire hazards in your community](#).
2. Scroll down the page and choose **Submit a Fire Hazard Assessment Request**.
3. At the bottom of the page, under **Report a Potential Fire Hazard**, click **Start process**.
4. Complete the 'Potential Fire Hazard Advice' form.

## Assessment of fire hazards

Fire and Emergency will assess whether there is a potential for the fuel to harm people or damage property if a fire starts. We will assess the likelihood of a fire starting and the consequences in terms of risk to human life, structures and other values.

We use an assessment tool to provide a structured framework for determining whether:

- it is appropriate for us to exercise our fire hazard removal powers under [sections 65–68](#) of the Act
- it is more appropriate to educate the complainant or occupier/owner of the location of the potential fire hazard on how to mitigate risks from fires
- to refer the matter to another jurisdiction
- no further action is required.

## Initial review

The assessor starts by answering four key questions:

- Is the potential hazard:
  - trees close to power lines, or
  - hoarding inside a building?
 If yes, then the hazard is referred to the relevant lines company or local council for action.
- Is the material involved likely to pose a risk to life or property through ignition without spreading? This covers fuel types that are likely to endanger adjacent or downwind properties (either through creating significant health concerns or possible contamination damage), without spreading. This could be due to smoke toxicity or high intensity of burning.
- Is there sufficient material of appropriate type and composition to support a fire spreading to adjacent property or values? This captures the spread potential, taking into consideration the physical properties of the fuel as well as the general topography and onsite conditions. That includes continuity, size and shape, fuel load and flammability, as well as likely direction of fire travel.
- Is the burning material likely to produce enough heat to cause damage to property? Gives consideration to the fire having sufficient energy to actually cause damage to property if spread to it, or to compromise the health of property users.

## Risk assessment matrix

If it's appropriate, we then use a risk assessment matrix. This involves:

- assigning a risk of ignition rating, where 'rare' is a low rating and 'almost certain' is a high rating
- assigning a likely consequence rating for each component, and using the highest value of:
  - human life at risk
  - structure at risk
  - other values at risk



- using the risk of ignition and likely consequence ratings to determine the risk assessment score in the matrix

		Likely consequence (highest consequence rating)				
		1	2	3	4	5
Risk of ignition rating	5	5	10	15	20	25
	4	4	8	12	16	20
	3	3	6	9	12	15
	2	2	4	6	8	10
	1	1	2	3	4	5

- using the risk assessment matrix score to determine the next course of action.

Score	Next course of action
1-5	No further action.
6, 8, 9	Consider providing information/education to occupier/owner/complainant on how to mitigate risks from fire.
10, 12	Provide information/education to occupier/owner/complainant on how to mitigate risks from fire.
15, 16	Consider issuing a <i>Fire hazard removal notice (s 65)</i> , otherwise provide information/education to the occupier/owner /complainant on how to mitigate risks from fire.
20, 25	May issue a voluntary compliance letter citing a timeframe to meet that compliance. Failure to comply means the assessor must issue a <i>Fire hazard removal notice (s 65)</i> . Consider if an <i>Imminent danger notice (s 68)</i> is appropriate.

## Outcomes from the fire hazard assessment

The assessment will recommend one of the following courses of action:

1. No further action, because the vegetation or other thing does not present a fire hazard, or imminent danger. The matter may be referred to another agency, such as the local council if appropriate, e.g. hoarding or vermin infestation.
2. Providing education and information to the occupier or owner of the land, and/or to the complainant, on how to mitigate any risks from fire. We would do this where the notice threshold has not been reached but the assessment indicates that proactive action would be helpful.
3. Giving the occupier or owner of the land the opportunity to voluntarily mitigate the risk within an appropriate time period. We would do this if the threshold for issuing a Fire hazard removal notice ([section 65](#)) has been met. If the occupier or owner won't do this voluntarily, we will issue them with a Fire hazard removal notice ([section 65](#)). This notice gives them one month to remove or destroy the vegetation or other thing increasing the risk of the outbreak or spread of fire.
4. Give the owner or occupier of the land verbal notice that we are taking immediate action to remove or destroy any vegetation or other thing on the land that is a source of imminent danger under [section 68](#). We would only use this power when there is an 'almost certain' likelihood of a fire starting or spreading at any moment that would put life or property at risk.

**Note:** We will use this power very rarely.

## Powers of entry

We will not enter private property without permission from the occupier other than to knock on the front door or other entry point to find and speak with an occupier.

If the occupier doesn't give us permission or we can't find them, we will attempt to assess the potential fire hazard from outside of the property. For example, we might view it from the roadside or from a neighbouring property if the neighbour consents to us entering their property.

If we need to, a Fire and Emergency inspector can enter and inspect land that is not a home or marae (or a building associated with a marae) to determine whether certain materials (including timber, dry plant cuttings and other flammable material) are being stored outside a building in a way that creates a fire hazard to the building, another building, or to any road or other public place (see [regulation 13\(4\)](#) of the [Fire and Emergency New Zealand \(Fire Safety, Evacuation Procedures, and Evacuation Schemes\) Regulations 2018](#)).

A Fire and Emergency inspector must obtain a warrant to enter and inspect land that is a home or marae (or a building associated with a marae).

We can take photographs of private land (or things on private land) from public land as long as we don't take pictures of an area or thing that a person can reasonably expect to be private (e.g. a photo that includes a view into a shower or a secluded area where someone is sunbathing).

## Fire hazard removal notice (section 65)

A fire hazard removal notice ([section 65](#)) is formal written notification under [section 65](#) of the Act to an occupier or owner of land that they must remove or destroy the 'vegetation or other thing' that we've assessed as meeting the threshold for issuing a notice.

The notice:

- describes the vegetation or other thing that must be removed or destroyed, including a map if practicable identifying the specific location or extent of the vegetation or other thing
- explains the risk that Fire and Emergency reasonably considers that the vegetation or other thing presents
- specifies the actions that must be taken to mitigate the fire hazard risk, e.g. how much vegetation must be removed or destroyed.

Before we issue a fire hazard removal notice, we will always try to negotiate with the occupier or owner to give them an opportunity to fix the issue voluntarily.

The occupier of the land where the fire hazard is located is primarily responsible for removing or destroying it. If the land is unoccupied, then the responsibility passes to the owner of the land.

Occupier, in relation to any place or land, means any person in lawful occupation of that place or land; and includes any employee or other person acting under the authority of any person in lawful occupation of that place or land.

## Imminent danger notice (section 68)

An Imminent danger notice is verbal notification under [section 68](#) of the Act to an occupier or owner of land that Fire and Emergency is going to enter the land and remove or destroy any vegetation or other thing on land that we consider is a source of imminent danger from fire to life, property, or any road.

Anyone receiving the verbal notice should be able to understand:

- that Fire and Emergency has decided that [description of fire hazard] is a source of imminent danger to [life, property, and/or road]
- why the fire hazard is a source of imminent danger
- that Fire and Emergency has arranged for the [removal or destruction] of the fire hazard under [section 68](#) of the Act by [name of contractor] on [date]

- any arrangements for the storage of items removed from the land, and the terms under which the owner/occupier can retrieve those items.

In the event of an actual fire, we can use all of our powers to deal with the emergency, including [sections 42 and 43](#) to remove vegetation or material without telling you.

## Regulatory compliance

### Fire and Emergency's role

The Act gives Fire and Emergency compliance and enforcement responsibilities, and powers to support interventions in cases of non-compliance. In line with this, we have developed a comprehensive [Risk Reduction Strategy](#), supported by a Regulatory compliance policy. Our [Regulatory compliance guide](#) has details of our approach to compliance.

Our compliance activities generally focus on education and awareness first, followed by issuing warnings. If compliance is still an issue, then we may use more formal enforcement powers.

If there are cases of serious or repeated non-compliance, we may use infringement notices or prosecute. For more information on our regulatory compliance policies and procedures and other relevant topics, visit [Regulatory compliance](#).

### Contact Fire and Emergency

#### In case of an emergency please call 111

#### General enquiries and questions

- Recruitment/volunteering
- Fire safety information
- Fire permits and seasons
- Evacuation schemes
- Request for access to the site of an emergency.

[Submit a general enquiry or question](#) or call 04 496 3600.

#### Lodge a complaint

<https://www.fireandemergency.nz/contact-us/complaints/>

#### Fire hazards

- Complete [this online form](#)
- You can also call the Regulatory Compliance Group on 0800 336 942.

### Local contacts for this plan

To communicate with the District team for this fire plan please email [otagoriskreduction@fireandemergency.nz](mailto:otagoriskreduction@fireandemergency.nz)

## Glossary

**4Rs** – Reducing risk, ensuring response readiness, providing emergency response and making coordinated efforts to enable recovery following an emergency.

**Build-up Index (BUI)** – A component of the Fire Weather System. This index shows the amount of fuel available for combustion, indicating how the fire will develop after the initial spread. It is calculated using the Duff Moisture and Drought Code.

**Duff Moisture Code (DMC)** – A numerical rating of the average moisture content of loosely compacted organic layers of moderate depth. This code gives an indication of fuel consumption in moderate duff layers and medium-size woody material.

**Firebreak** – A natural or artificial physical barrier against the spread of fire from or into any area of continuous flammable material – e.g., a track bulldozed clear of all vegetation.

**Fire control** – Preventing, detecting, controlling, and putting out fire, and protecting persons and property from fire.

**Fire control powers** – Our ability to legally require people to stop doing things that increase the risk of a fire – e.g. restricting where and when they can use fire, requiring vegetation to be removed to prevent the spread of fire, etc.

**Fire danger** – A rating of how difficult a fire will be to control once it starts – e.g. low to extreme: low being easy to contain, extreme very difficult to contain.

**Fire Danger Rating System** - A relative class denoting the potential rates of spread, or suppression difficulty for specific combinations of temperature, relative humidity, drought effects and wind speed, indicating the relative evaluation of fire danger.

**Fire environment** – The surrounding conditions, influences, and modifying forces of topography, fuel, and weather that determine fire behaviour.

**Fire hazard** – Vegetation or other thing on the land that Fire and Emergency reasonably considers likely to endanger persons or property by increasing the risk of the outbreak or spread of fire.

**Fire in open air** – Fire that isn't in a fireplace in a building or structure or isn't in something else that Fire and Emergency says is not in the open air.

**Fire risk conditions** - Weather or other conditions that will, or are likely to, endanger persons or property by increasing the risk of the outbreak or spread of fire.

**Fire seasons** – Period when we restrict or prohibit the use of fire in the open air. Areas that are not in a Restricted or Prohibited fire season are in an Open fire season. Can also refer to the October to May period when fires are more likely.

**Fire weather** – Weather conditions which influence fire ignition, behaviour and suppression.

**Fire Weather System** – Numerical values that indicate weather and fuel conditions that influence fire behaviour, which feeds into the Fire Danger Rating System.

**Grass curing (GC)** – A component of the Fire Weather System. Grass goes through a natural process where after flowering/seeding it changes colour as it dies off. This process is known as 'curing.' The degree of curing (%) is the portion of dead grass vs live. Dead grass allows fire to spread easily.

**Important Bird Areas (IBAs)** – Sites recognised as internationally important for bird conservation and known to support key bird species and other biodiversity. Legal protection, management and monitoring of these crucial sites are all important targets for action. Many bird species may be effectively conserved by these means.

**Land cover** – What covers the land – trees, grasslands, scrub, residential property.

**Land use** – How the land is used – e.g. primary production (farming), forestry, residential, industrial.

**Local area** – The area within the boundaries of a local advisory committee that are set in accordance with [section 16](#) of the Act.

**Natural hazard** – has the meaning given in section 2 of the Resource Management Act 1991.

**Primary production** – Livestock farming for dairy, meat and wool. Horticulture, including kiwifruit, apples, avocados, grapes for wine production, vegetables, arable and seed crops, other horticultural crops, cut flowers, and other animal products. Also includes forestry, but this is dealt with separately in fire plans.

**Public conservation land (PCL)** – Land used for conservation purposes, including National Parks and forest parks. Often managed by Department of Conservation or the regional council.

**Remote Automatic Weather Station (RAWS)** – Weather station that automatically provides the data used to determine weather and fuel conditions. Results are available from <https://fireweather.niwa.co.nz> and products such as Eco Connect.

**Scientific Reserves** – Per the [Reserves Act 1977](#), the principal purpose of these reserves is the protection and preservation in perpetuity of areas for scientific study, research, education and the benefit of the country.

**Special risk zone** - Areas or features with high values, which are particularly vulnerable to, or likely to be severely affected by unwanted fire, such that the use of fire should be avoided completely or strictly controlled. For example, fire may have a significant and irreversible impact on rare or fragile ecosystems or habitat, or due to fire risk conditions present in a particular area, fire may pose an unacceptable risk to persons or property.

**Spike day** - a defined and usually short period where fire danger is expected to be:

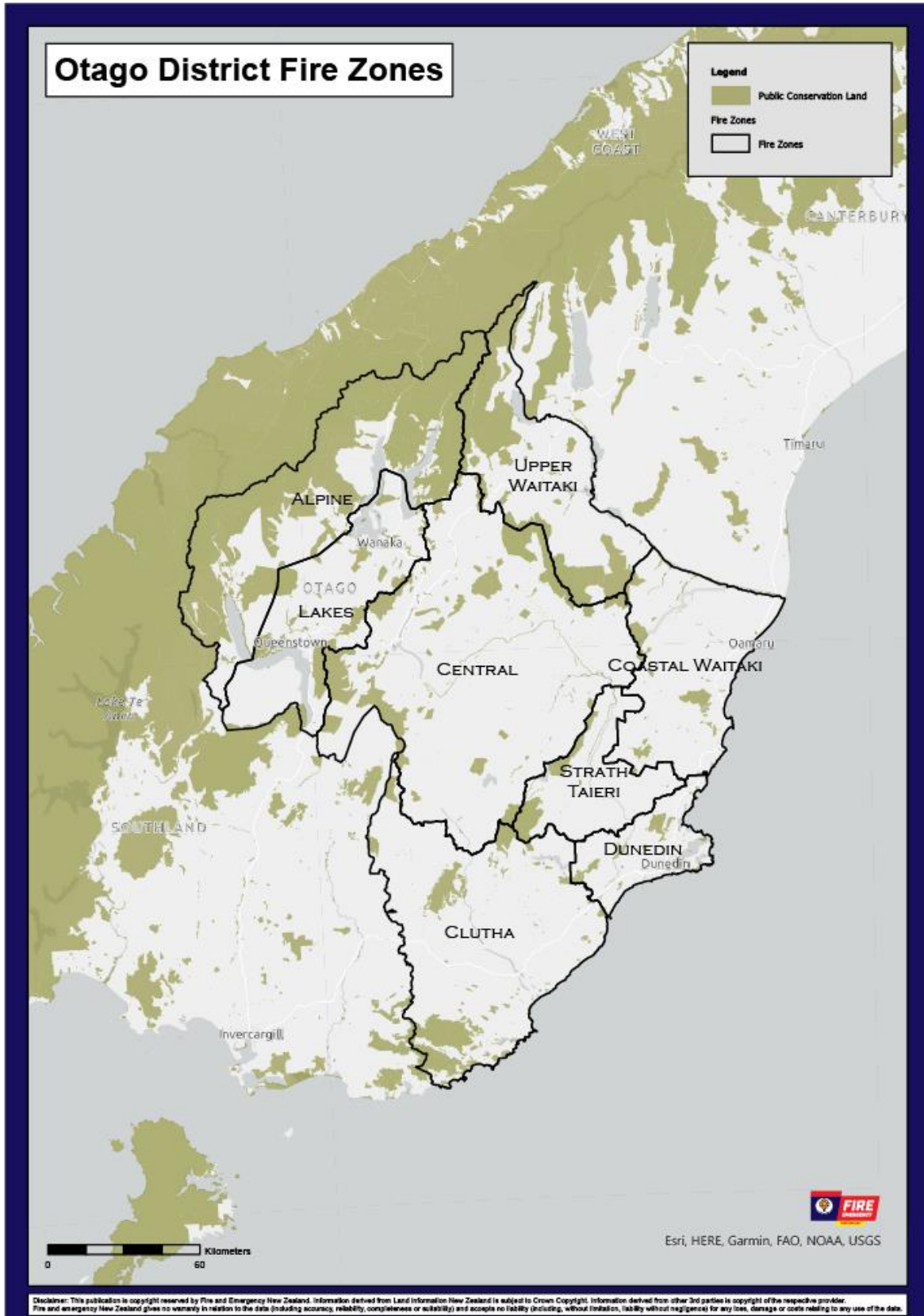
- Extreme; or
- Significantly elevated (i.e., beyond what would be typical, or observed either side of the spike day); and
- There is credible potential for large or multiple fires to start easily, spread rapidly, be very difficult to control and/or cause extensive damage.

There are other factors that may be considered (such as what is 'normal' in the area or time of year), but in general a fire weather index (FWI) value over 30 may be considered a spike day. This applies whether the FWI value is driven by high available fuel load, or high initial spread index (ISI).

**Values** - use of the term 'values' in this document may refer to people, property and/or the environment. It means collective appreciation of the intrinsic value of the natural or physical qualities and characteristics of an area or place, which contribute to public interest in, or community appreciation of, that place or area. That is, 'values' are significantly broader than individual or commercial interests, or financial value alone.

## Otago information

This section contains the information specific to the Otago Fire District, including an overview of the area, and more detailed information for each of the fire zones within the area. The map below shows only the main fire zones. Within each zone there are 'special risk zones', which are technically also fire zones.



## Area overview

### Geography

The area covered by this plan is the Otago Fire District, which for practical purposes is the same as the Otago Province. This is an area of some 37,000 square kilometres. Almost three-quarters of Otago land cover is grassland.

From the Otago Conservation Management Strategy 2016, the:

defining characteristics of Otago are the combination of block mountain, tussock grassland, and rocky dryland landscapes, and the indigenous bush-covered coastal hills of the Catlins. Extensive, intact snow-tussock grasslands and tundra-like vegetation found on the broad block mountains of Central Otago.

Significant biodiversity values exist across both public and private lands. These include fauna and flora values in coastal environments to alpine landscapes.

### Demographics

Otago District covers a region of over 35,000 square kilometres, the second largest region in New Zealand, and has a population of over 225,000. The approximate population breakdown within each main fire zone is as follows:

- Central: 21,552
- Clutha: 17,019
- Coastal Waitaki: 21,318
- Upper Waitaki: 1,140
- Dunedin (including Strath Taieri): 125,544
- Lakes: 38,292
- Alpine: 600

Seasonal variations are influenced by Otago's diverse geography and climate. Tourism-driven areas, particularly in areas like Queenstown Lakes, experience fluctuations in population during peak tourist seasons.

Seasonal variations are also closely tied to Otago's agricultural and horticultural industries and the need for seasonal labour. For example, communities in Central Otago experience higher population during planting and harvest seasons.

Educational institutions in Dunedin City contribute to fluctuation, with around 28,000 students arriving and (mostly) leaving at the end of the academic year.

Over 80% of Otago's population live in urban areas. The largest urban area is Dunedin, home to about 42% of Otago's population with the associated concentration of services, industries, and cultural amenities.

Otago towns with resident populations over 5000 include Wānaka, Queenstown, Cromwell, Alexandra, Oamaru and Mosgiel.

Outside these towns, Otago is comparatively sparsely populated.

## Zones

Because of the different fire risk conditions, activities and values that exist in different parts of the fire plan area, the area is divided into five different brigade groups, which may be further broken into one or more fire zones, to allow for appropriate fire control measures to be applied locally.

To simplify public messaging and for practical purposes, group boundaries are aligned with territorial authority and emergency management boundaries. Otago groups and main fire zones are as follows:

- Central Otago group: [Central Otago Zone](#)
- Clutha group: [Clutha Zone](#)
- Dunedin City group: [Dunedin Zone](#) and [Strath Taieri Zone](#)
- Waitaki group: [Coastal Waitaki Zone](#) and [Upper Waitaki Zone](#)
- Queenstown Lakes group: [Lakes Zone](#) and [Alpine Zone](#).

Each zone is described and its relevant trigger thresholds and other factors for changing fire seasons are listed in the zone information.

## Special risk zones

Special risk zones (SRZs) are smaller fire-zones that sit within, and in some cases across, the main fire zones listed above, but due to the special values or threats in that area, they may have different triggers for setting fire seasons and fire controls, or year-round fire controls.

The following localities have been assessed and designated as special risk zones that require application of year-round fire controls:

- Naseby SRZ, situated within Central Zone
- Waipori Falls SRZ, situated within Clutha Zone
- Shag Point SRZ, situated within Coastal Waitaki Zone
- Lake Ōhau Village and lakeshore, situated within Upper Waitaki Zone
- Mopanui SRZ, situated within Dunedin Zone
- Bucklands Crossing SRZ, situated within Dunedin Zone
- Flagstaff – Silverpeaks SRZ, situated within Dunedin Zone
- Mount Cargill – Mihiwaka SRZ, situated within Dunedin Zone
- Pīpikāretu SRZ, situated within Dunedin Zone
- Mount Iron SRZ, situated within Lakes Zone
- Albert Town Recreation Reserve SRZ, situated within Lakes Zone
- Queenstown SRZ, situated within Lakes Zone
- Ruby Island SRZ, situated within Lakes Zone
- Stevensons Island SRZ, situated within Lakes Zone
- Glendhu Bluffs SRZ, situated on the boundary of Alpine and Lakes Zones
- Mou Waho SRZ, situated on the boundary of Alpine and Lakes Zones
- Mou Tapu SRZ, situated on the boundary of Alpine and Lakes Zones
- Pig Island / Mātau SRZ, situated within Alpine Zone
- Pigeon Island / Wāwāhi Waka SRZ, situated within Alpine Zone.

## Criteria for designating special risk zones

### Special risk zones

The Fire and Emergency procedure for setting fire season thresholds allows for the creation of special fire zones for “areas with significant value(s) or particular vulnerabilities”.



When considering whether a prohibited or restricted fire season is necessary in such areas, decision makers are required to determine whether fire risk conditions exist, or are likely to exist in the area, that will endanger people, property, or environment.

In most of these areas, the risk and threat of wildfire is such that fire might be considered a natural hazard. Therefore, designation of a place or locality as a special risk zone may have implications for other jurisdictions, and most importantly for the people living, working, or recreating within them. Due to the gravity of those implications, in addition to the matters set out in the Fire and Emergency procedure for setting triggers for fire seasons, Otago District has identified risk-based criteria to inform decision-making as to:

- whether an area should be considered as a special risk zone
- which fire controls and other risk reduction or readiness measures are available and suitable
- how effective those measures are likely to be in reducing total risk
- how those measures are likely to impact upon industries and people, and whether the impact is reasonable and proportionate to the risk.

To be designated a special risk zone, the wildfire risk needs to be significantly higher than the surrounding fire zone, in terms of both the likelihood, and the consequences of unwanted fires.

#### **Likelihood criteria:**

Exceptional fire risk conditions (factors that increase the probability of an event occurring, the speed of event development and the probability of substantial impact), compared to the surrounding fire zone(s); including at least three of the following criteria:

- Communities built within or immediately adjacent to heavy and/or volatile fuels
- History of fires and/or demonstrably higher chance of ignition, compared to the surrounding zone(s)
- A significantly higher likelihood of extreme fire behaviour and/or rapid fire spread
- Likelihood that the risk will be realised before effective response; i.e. due to a potentially volatile fire environment, remoteness or access constraints, there is increased potential for loss of values before Fire and Emergency could effectively control the fire.

#### **Consequence criteria:**

Significantly higher values threatened by fire, compared to the surrounding zone(s), including at least three of the following criteria:

- The presence of critical infrastructure; utilities or assets of regional or national significance
- The presence of cultural or historical sites that are regionally or nationally significant
- The presence of species that are listed as nationally critical or endangered
- Disproportionate community impact e.g. loss of values critical to local economy
- Limited ability for the community to escape a fire safely and promptly
- Limited ability, and/or extensive time and/or cost, for the community and/or values to recover from fire.

## Frequency of elevated fire danger

Otago seasonal severity differs markedly between and even within fire zones. Both the Central and Upper Waitaki Zones experience over a month of 'very high' to 'extreme' fire danger each year, whereas Clutha Zone averages less than one day of elevated fire danger (based on Scion fire danger climate data for seasonal severity).

Average number of days reaching 'very high' to 'extreme' fire danger per year:

- Central Zone: 32 days (note: ranges from 9 in Clyde to 42 at Naseby)
- Upper Waitaki Zone: 33 days
- Lakes Zone: 20 days (note: Wanaka 32 days, Queenstown 8.5 days)
- Strath Taieri Zone: 18 days
- Coastal Waitaki Zone: 9 days
- Dunedin Zone: 7 days
- Clutha Zone: < 1 day
- Alpine Zone: data not yet available.

## Fire history

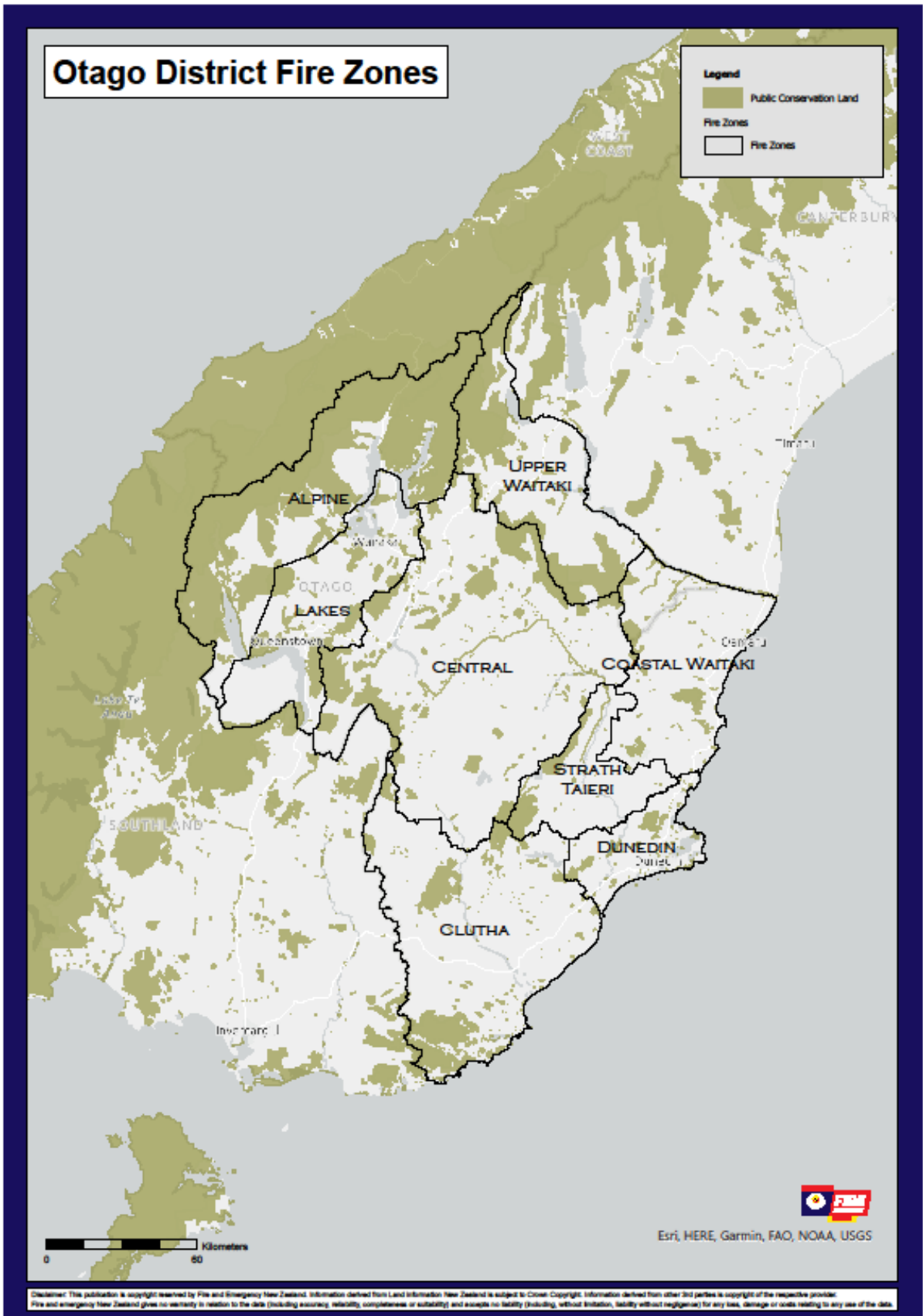
The fire history for this District (below) includes significant wildfires, and fires caused by or relevant to activities regulated by our fire control powers:

Year	Fire	Cause
2014	Northburn	Prescribed burn
2014	Wilson's Bay; 3 ha	Powerlines
2015	Aurum Terrace	Campfire
2015	Stoneburn; 100 ha	Powerlines
2015	Waitaki rail fires	Train
2016	Waitaki Island; 72 ha	Suspicious
2017	Rat Point; 300 ha	Campfire
2018	Burnside industrial fire	Incorrect disposal of ashes
2018	Mount Aspiring – Wanaka Road; 191 ha	Disposal of embers from BBQ
2019	Cornish Point	Explosives
2019	Deep Creek, Coronet Peak	Undetermined
2019	Dunback; 10 ha	Powerlines
2019	Duntroon; 10 ha	Escaped unpermitted burn
2019	Flagstaff	Suspicious
2019	Mount Pisa	Escaped prescribed burn – Unpermitted
2019	Mountain Track Road; 30 ha	Escaped burn
2019	Old Dunstan Road (Te Papanui) – 5400 ha	Suspicious
2019	Skippers	Unattended burn pile
2019	Waipiata	Dry lightning
2020	Ben Lomond – 1,000 ha	Escaped prescribed burn
2020	Gold Bar Road; 100 ha	Escaped burn
2020	Hyde–Middlemarch; 80 ha	Camp cooker
2020	Lake Ōhau; 5,000 ha	Powerlines

2020	McKenzie Road (Livingstone); 620 ha	Powerlines
2020	Pringle Gully Road; 10 ha	Escaped unpermitted burn
2020	Waipori Falls	Powerlines
2020	Mount Dasher	Escaped permitted burn
2022	Glendhu Bluffs	Accidental
2022	Mount Creighton	Escaped from burn piles
2023	Skippers Road	Under investigation
2023	Waenga Drive, Cromwell	Suspicious

**Public  
conservation  
land**

Due to the values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.



## Schedule of stakeholders

This schedule of stakeholders includes those who should be involved in the creation of these fire plans and their amendments or consulted before making use of the powers of section 52 of the Fire and Emergency New Zealand Act 2017 or notified when this happens. Zone-level stakeholders are listed with each zone description. Please note that many partners and stakeholders may have their own fire plans, which co-exist with and complement the purpose of this plan.

When we say...	What we mean is...
Consult while amending plan	You will have the opportunity for input into the fire plan before it is released for public consultation. Can include workshops and other opportunities to contribute.
Public consultation	You will have the opportunity to comment during the four-week public consultation period.
Consult during decision-making	The plan to change to a prohibited fire season or use section 52 will be discussed with you before it is implemented.
Notify of decision	You will be contacted directly when there is a change to a prohibited fire season, or when section 52 is implemented.
Notify using public channels	You will find out about the change in fire season, etc., the same way as other members of the public.
Notify via normal channels	This is relationship based, at either national or local level where existing relationships and engagement arrangements are used.

## National-level stakeholders

Stakeholders who have an interest in this fire plan area but are managed at national level.

Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Department of Conservation	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Environmental Protection Authority	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels
Federated Farmers of New Zealand	Public consultation	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Land Information NZ	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels

Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Taituarā – Local Govt Professionals Aotearoa (SOLGM)	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels
Local Government NZ	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels
Forest Owners Association	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Ministry for Primary Industries • Te Uru Rākau, New Zealand Forest Service	Consulted while creating plan	Consult while amending plan	Notify of decision	Notify of decision	Consult during decision making
NZ Farm Forestry Association	Public consultation	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Te Puni Kōkiri	Public consultation	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels
Ngā Whenua Rāhui	Public consultation	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels
Waka Kotahi NZ Transport Agency	Public consultation	Consult while amending plan	Notify using public channels	Notify using public channels	Consult during decision making
Nga Pirihimana O Aotearoa New Zealand Police	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Hato Hone, St John	Public consultation	Public consultation	Notify of Decision	Notify using public channels	Notify using public channels

If your organisation should be involved in fire plans at a national level, please contact us.

## Area-level and zone-level stakeholders

This list is for stakeholders who have an interest in the fire plan area or in specific zones. Fire and Emergency undertakes to consult as indicated for each zone's stakeholders.

Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Department of Conservation <ul style="list-style-type: none"> <li>• Ōtepoti– Dunedin Office (12 April 2021)</li> <li>• Ka Moana Haehae – Alexandra Office – Central zone</li> <li>• Wakatipu-wai-Māori – Queenstown Office</li> <li>• Tititea – Mount Aspiring National Park Office</li> <li>• Te Manahuna - Twizel</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
Public, including <ul style="list-style-type: none"> <li>• Landowner</li> <li>• Lifestyle property occupiers</li> <li>• Farmers</li> <li>• Agricultural workers</li> <li>• Public events</li> <li>• Tourism operators</li> </ul>	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Mana whenua: Ngāi Tahu <ul style="list-style-type: none"> <li>• Te Rūnanga o Moeraki</li> <li>• Kāti Huirapa Rūnaka ki Puketeraki</li> <li>• Te Rūnanga o Ōtākou</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Notifying using public channels
Port Blakely Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making

Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Calder Stewart Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
City Forest Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
Ernslaw One Ltd	Consult while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
PF Olsen	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
Wenita Forest Products	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
Ngāi Tahu – Dunback Forestry Development	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
New Zealand Carbon Farming	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
Skyline Queenstown; Gondola, Luge and Mountain Bike trails	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Ziptrek	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Local Fire and Emergency brigades	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels



Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Fire and Emergency neighbouring districts <ul style="list-style-type: none"> <li>• Southland</li> <li>• Mid-South Canterbury</li> <li>• West Coast</li> </ul>	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Otago Civil Defence Emergency Management Group	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Nga Pirihiimana O Aotearoa New Zealand Police – Southern District	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Hato Hone St John; Southland/Otago	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
KiwiRail	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Waka Kotahi (NZ Transport Agency)	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Aurora Energy	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Delta Utility Services	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Network Waitaki	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
PowerNet Limited	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Central Otago District Council	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Clutha District Council	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels

Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Dunedin City Council	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Waitaki District Council	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Queenstown Lakes District Council	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Otago Regional Council	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Environment Canterbury Regional Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Ministry for Primary Industries	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Federated Farmers of New Zealand	Consulted while creating plan	Consult while amending plan	Notifying using public channels	Notifying using public channels	Notifying using public channels

If your organisation should be involved in fire plans and has an interest across the whole fire plan area or in a specific zone, please contact us about being added to this list.

## Zone information

### Central Otago Zone

#### Geography

Central Otago is situated in the inland part of the Otago District. It extends to the upper reaches of the Clutha River / Mata-au and its tributaries, from Lindis Pass at the northern tip of the zone down to Raes Junction, and west to east from the Pisa to the Rock and Pillar range.

The broad highland plateau of the Mānīatoto, which includes the important catchments of the upper Taiari River and the Clutha/Mata-Au tributary the Manuherekiā River, is also part of the Central Zone.

Central Otago is dominated by range and valley topography and is known for its extreme seasons and open spaces.

#### Climate/weather

Central Otago is the only area of New Zealand that experiences what closely resembles a 'continental' climate. This zone is the driest in New Zealand, recording 363 mm of rain in Alexandra and 437 mm in Cromwell, with frequent long dry spells.

It is known for its extreme temperatures – as high as 38.7°C in summer and as low as -25.6°C in winter). Within these ranges, on average seven days a year reach over 30°C, 41 days over 25°C and 86 days below zero. Frost can 'cure' (dry) grasses, meaning that fires can start and burn even during colder months.

Monthly average wind speed during spring and summer is relatively low across the zone (7–14 kmph). There are very few days of strong winds (> 30kmph), most often in spring. However, the prevailing strong wind is north-westerly, which in summer is hot and dry and can gust well over 100 kmph, often contributing to extreme fire danger.

#### Land cover/ land use

The Central Zone has a wide range of (mainly) primary sector industries. Changes in farming practices and dairy conversions in the valleys and plains have increased the total demand for irrigation. Recreation-driven tourism is also a significant industry and land use.

Waterbody and cropland cover increased significantly between 1996 and 2018. Around 90 percent of the zone is covered by grass. Around two-thirds of these are low-producing grasses or tussock, mostly on the hill-country.

Horticulture, viticulture, and intensive agriculture are confined to the irrigated river valleys and plains, with high-producing grassland accounting for about a quarter of all land cover.

No other types of land cover are significant, with no single type accounting for more than 2 percent of total land cover. There are very few trees, with all types of trees or forest cover accounting for less than 2 percent of the land area.

**Industry**

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Primary production, including horticulture and agriculture <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Use of fire for land management</li> <li>• Relevant operations affected</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Forestry (Naseby special risk zone) <ul style="list-style-type: none"> <li>• High recreational use</li> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Use of firebreaks</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apiculture (beekeeping) <ul style="list-style-type: none"> <li>• Use of smoke</li> <li>• Use of fire to destroy infested hives</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules may start fires</li> <li>• Tourists affected by wildfire</li> <li>• Access to locations may be restricted.</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Lifeline utilities/other infrastructure**

Lifeline utility/ other infrastructure	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in high fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Central Otago Hydro Power <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central Otago District Council Three Waters <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Small-scale hydro schemes, e.g. Pioneer Energy (Central Otago)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<ul style="list-style-type: none"> <li>Protect by applying controls to surrounding areas</li> </ul>			
Roothing network (SH6, SH8, SH8A, SH87, SH85) <ul style="list-style-type: none"> <li>Sparks or heat from moving or parked vehicles</li> <li>Spark causing activities during road maintenance and mowing</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Telecommunications network <ul style="list-style-type: none"> <li>Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Recreational locations

The Central Zone includes a considerable amount of Public Conservation Land and other Crown Land. These include:

- intensively used facilities in lowland areas (e.g. Bannockburn Sluicing's, Otago Central Rail Trail, Cromwell Gorge Cycle Trail)
- sparsely populated tussock-dominated high country (e.g. Kōpūwai Conservation Area, Ōteake Conservation Park) popular with hunters, mountain bikers and off-road drivers.

### Cultural and recreational activities and events

Central Otago features a number of traditional routes and nohoanga or seasonal occupation sites. East coast and southern Māori use these to access and collect resources from inland or south Westland. Tangata whenua therefore have very strong ties to the whenua (land) and value being able to carry out customary practices without unreasonable restriction. Fire and Emergency must consider the impact of decisions upon Māori when exercising fire control powers. We have listed the iwi and rūnanga for this zone as stakeholders.

This zone hosts several large-scale events that might be cancelled or postponed because of fire risk or fire controls, which could have a significant economic impact.

Restrictions or prohibitions of fire or activities must be reasonable and proportionate to fire risk conditions, to avoid unreasonable impact on people living and enjoying recreational activities in this zone.

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>Use may be prohibited during high fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hunting <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during high fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Mountain biking, horse riding, back country running • Access may be restricted during high fire danger	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Camping and tramping • Campfires and other fire types Increase in people without knowledge of fire risk or rules	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Special risk zones</b>	<b>Special risk zone</b>	<b>Contributes to increased risk of fire in high-risk conditions</b>	<b>Affected by use of fire control measures</b>	<b>Needs to be protected by using of fire control measures</b>
	Public conservation land • Ecological values at risk • In own zone to apply separate controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Naseby Forest and village • Forest used recreationally, directly abuts village • Fire presents an exceptionally high risk to life, structures, utilities, and forestry assets • Protect by applying fire controls to forest, village, and surround	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Special risk zones are those areas or features that are particularly vulnerable to, or likely to be severely affected by unwanted fire.

Due to the ecological and historical values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

[Refer to Otago Special risk zones](#) for more information, including fire season triggers.

#### Known fire hazards

The Fire Hazard Removal Case Management System lists one long-term fire hazard in this zone: the grass and scrub-covered undeveloped land between State Highway 6 and Waenga Drive, Cromwell.

#### Frequency of elevated fire danger

On average, based on Scion fire danger climate data for seasonal severity, this zone experiences 32.1 days of very high to extreme grass fire danger.

**Fire history**

The known fire history for this zone for wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
1999	Alexandra/Fruitlands	Powerlines
2014	Northburn	Prescribed burn – fatality
2019	Cornish Point	Explosives
2019	Mount Pisa	Escaped prescribed burn – unpermitted
2019	Waipiata	Dry lightning

**Predominant fuel type**

The predominant fuel type in this zone is grassland. There are isolated small patches of remnant indigenous forest and scrub, and a few planted or wilding conifer forests.

**Thresholds****Fire seasons**

Land cover in areas of highest wildfire threat is grassland mixed with scrub or forest. For this reason, we don't set fire seasons according to grass-curing values only. Build-up Index (BUI) and the degree of grass curing (GC%) are the most relevant fire weather indices to monitor where there is a mixture of forestry and grasslands as the predominant fuel types.

We will use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in this zone. We may also consider other [fire risk conditions](#).

Grass curing (%)	Build-up Index (BUI)		
	0–40	40–80	> 80
0–60	Open	Open	Prohibited
60–90	Open	Restricted	Prohibited
>90	Restricted	Prohibited	Prohibited

**Interpreting this matrix:**

Open	Open fire season
Open/Restricted	Open fire season but we may move to a restricted season earlier if forecast conditions support this.
Restricted	Restricted fire season
Restricted/prohibited	Restricted fire season but we may move to a prohibited season earlier if forecast conditions support this or stay in a prohibited season longer if grasses remain dry and cured.
Prohibited	Prohibited fire season

**Prohibition on fires in open air (section 52)**

We refer to the same Fire Weather System trigger thresholds and fire risk conditions for prohibiting fires in the open air under section 52 as we do for changing to a prohibited fire season, but use section 52 when the fire risk conditions are not expected to last long enough to justify changing to a prohibited fire season.

Local thresholds have not been set for this zone.

## Prohibitions or restrictions on activities (section 52)

Localised trigger thresholds for applying section 52 to activities have not been developed. However, there are some local mitigations used to reduce the need to implement it.

Advice is available on [checkitsalright.nz](https://checkitsalright.nz) about when to avoid certain activities that may cause a wildfire. Where there is an elevated risk, or the public aren't following this advice, prohibitions or restrictions on activities are tools available to us.

### Tourist activities and holidaymakers

During holiday periods, many visitors come to the Central Zone. The population swells most during peak fire season, so it is important that these visitors are aware of the fire risk and how to stay safe.

National media campaigns provide awareness in various media forms. DOC also provides information about using fire safely on public conservation land. Signage on roadsides and at campgrounds also provide information.

Locally tailored media campaigns may be used to target visitors, to make them aware of the current fire season and generally higher fire danger in this fire zone.

### Forestry operations

The NZ Forest Owners Association have developed the [Forest fire risk management guidelines](#) (NZFOA 2018). The guidelines contain trigger point tables with six Fire Risk Management Code levels. The levels are based on the Build-Up Index (BUI) as the primary trigger, with escalation if the Fire Weather Index (FWI) value exceeds 25. They recommend fire prevention actions during different fire danger levels for forestry.

Fire and Emergency support these guidelines, which forest owners use to implement their own risk mitigation measures.

### Roadside mowing

Fire and Emergency will work with local councils and their contractors to keep them informed of any fire danger and spike days across the Otago District. This will help them make an informed decision not to carry out roadside mowing during heightened fire danger.

[www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws](https://www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws)

### Powerline auto-reclosures

Fire and Emergency works with electricity network owners and their contractors to help them monitor fire danger and 'spike days' across the Otago District. We suggest fire weather-based triggers to help them decide whether or not to automatically re-energise their lines if a fault occurs. Because most powerline fires start in grass or other fine fuels, we use grass curing (GC) and fine fuel moisture code (FFMC) for the triggers. Windy conditions are likely to contribute to line faults (e.g. via line breaks from branches or fallen trees) so we also factor in wind speed.

## Representative remote automated weather stations

We use Remote Automated Weather Station (RAWS) to determine whether we have reached the trigger thresholds and take an average across the relevant zone.

Central Zone	
Butchers Dam	Lauder
Clyde	Naseby Forest
Cromwell	Ranfurly

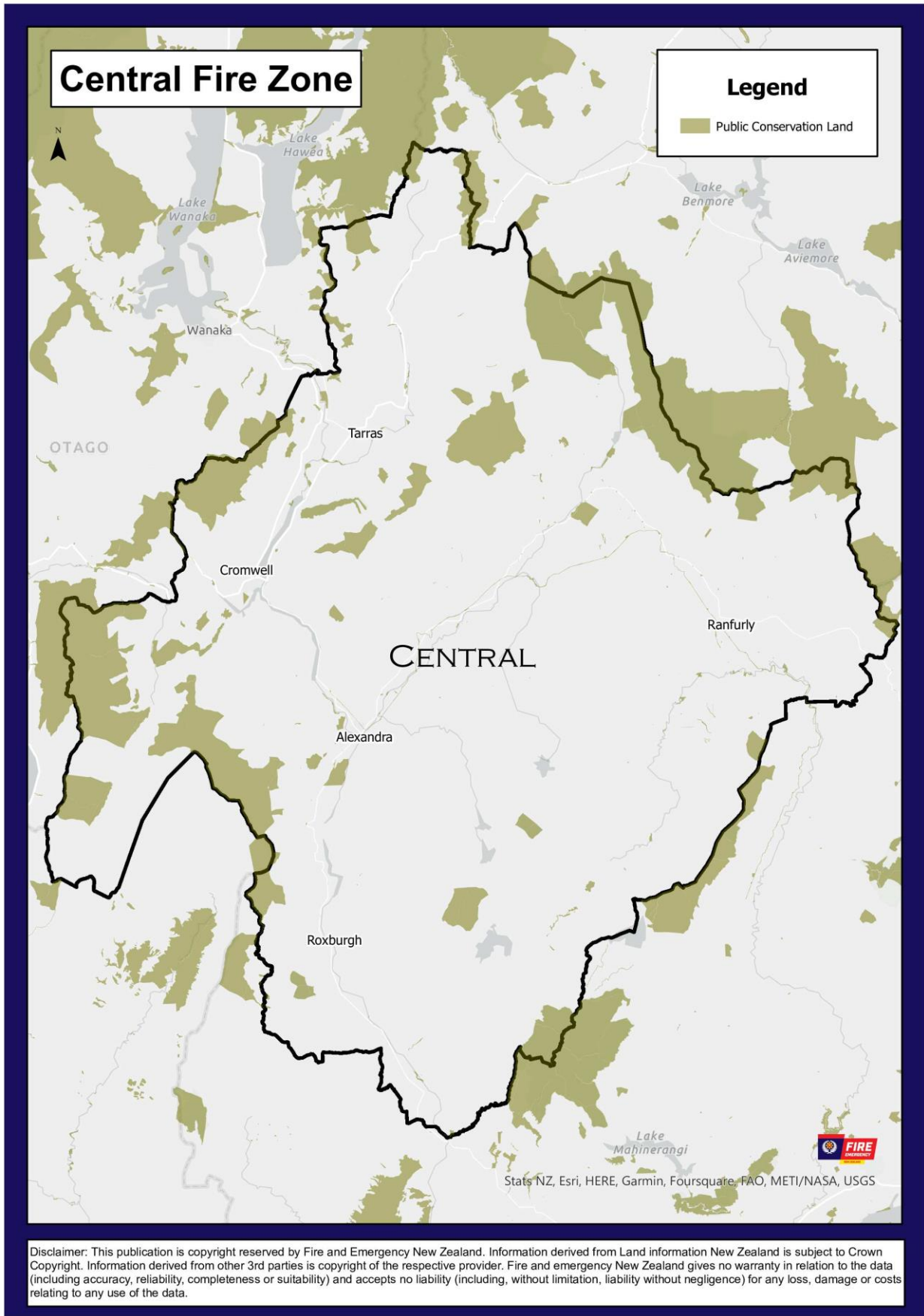


Danseys Pass	Millers Flat
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We will consider the forecast for this/these location(s) when declaring or revoking a fire season.

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Central Otago Zone map



## Clutha Zone

### Geography

The Clutha zone is dominated by the Clutha River/Mata-Au, which roughly bisects the zone. South and west of the river, the landscape is moderately steep troughs and folds, contrasting with rolling hills and floodplains, shallow lakes, and deltas to the east.

The zone has the same boundaries as the Clutha District Council. At the southern end of the zone is the Catlins coast, with its rough hilly country covered by mixed indigenous and exotic forests, and rugged coastline. Towards the northernmost end at Raes Junction, the landforms start to change to resemble Central Otago as the zone skirts the bottom of the Otago schist belt. The zone extends to the Pacific Ocean in the east with the Waipori and Taiari Rivers forming the boundary with Dunedin Zone.

The Clutha Zone includes the Catlins Conservation Park and many other reserves, and is sparsely populated, with no cities or towns with a population greater than 4,000.

The Clutha District has a land area of 6,362.86 km<sup>2</sup>.

### Climate/weather

The Clutha Zone has a temperate climate that is wetter and cooler on average than the neighbouring Central and Dunedin Zones, with an average rainfall of 693 mm per year. Temperatures range from -5°C to 33°C. On average, there are only three days a year less than 0°C and three days a year exceeding 25°C.

The Clutha Zone is subject to alternating warm and dry/cool and wet weather patterns year-round. Drier conditions are often the result of the north-westerly Foehn wind, which dries as it crosses the Southern Alps. Wetter air is the result of approaching low-pressure systems which sweep fronts over the lower South Island from the southwest.

A common variant in this pattern is the centring of a stationary low-pressure zone to the southeast of the country, resulting in long-lasting cool, wet conditions.

### Land cover/ land use

Clutha is sparsely populated and mainly rural – less than 2 percent of the land area is covered by built settlements, compared to around 58 percent of land covered by high-producing exotic grassland.

Exotic forestry is the second most common land cover at over 13 percent during 2018 and increasing since. Slightly less than 10 percent of the zone is covered by indigenous forest – mostly in the Blue Mountains and Catlins conservation estate.

Between 1996 and 2018, the area of exotic forest in Otago increased by 28 percent, with Clutha farmland to forestry conversion accounting for much of that. Large-scale afforestation is ongoing in Clutha, so it is probable that the 2018 land cover data does not reflect the current situation. Changes in land use and land cover affect fire risk, which has led to a revision of the fire season triggers for this zone (see below).

Other land cover types are mixed, with no other single type of land cover covering more than 5 percent of the area.

Land use is generally low intensity. Agriculture is the main land use, followed by commercial forestry, tourism and light industrial or commercial activities.

**Industry**

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Primary production, including horticulture and agriculture <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Use of fire for land management</li> <li>• Relevant operations affected</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Forestry <ul style="list-style-type: none"> <li>○ Blakely Pacific Ltd</li> <li>○ City Forest Ltd</li> <li>○ Wenita Forestry Products Ltd</li> <li>○ Calder Stewart Ltd</li> <li>○ Farm forestry/woodlots</li> <li>• Use of machinery – sparks</li> <li>• Operations affected by fire control</li> <li>• Fire control and other risk reduction measures, such as firebreaks, may be needed to manage the risk of inward or outward fire spread.</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apiculture (beekeeping) <ul style="list-style-type: none"> <li>• Use of smoke</li> <li>• Use of fire to destroy infested hives</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules</li> <li>• Access to locations may be restricted</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lifeline utilities/other infrastructure	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in high fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mount Stewart Wind Farm <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Hydro Power Station • Protect by applying controls to surrounding areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transpower National grid/substations • Protect by applying controls to surrounding areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clutha District Council Three Waters • Protect by applying controls to surrounding areas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Railway line • Sparks from passing trains and during track maintenance	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roading network (SH1, SH8, SH90 and SH93) • Sparks or heat from moving or parked vehicles • Spark causing activities during road maintenance and mowing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Telecommunications network • Protect by applying controls to surrounding areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Recreational locations

Clutha has many walking and cycle trails, often through native bush.

Recreational use of private and public land for hunting, camping, adventure sports/races and 4WD is also very popular in the Clutha District.

### Cultural and recreational activities and events

Clutha has many places of significance to Māori, in particular the awa Mata-Au (Clutha River), which has several kāika (settlements) sites located along the lower stretches and mouth of the river. The river itself was an important traditional route, providing access from the coast into central Otago and on to the west coast.

The town of Balclutha and state highway and railway closely follow the traditional route for coastal travellers moving between Murihiku and Ōtākou. The Clutha coast, estuaries, wetlands and shallow lakes offered plentiful food and resources such as harakeke flax. Tangata whenua therefore have very strong ties to the Clutha whenua (land), and value being able to carry out customary practices without unreasonable restriction.

Fire and Emergency must consider the impact of decisions upon Māori when exercising fire control powers. The relevant iwi and rūnanga for this zone are therefore listed as stakeholders.

Restrictions or prohibitions of fire or activities must be reasonable and proportionate to fire risk conditions to avoid unreasonable impact on people living and enjoying recreational activities in this zone.

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>Use may be prohibited during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hunting <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain biking, horse riding, back country running <ul style="list-style-type: none"> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Camping and tramping <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Special risk zones</b>			
Special risk zone	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Waipori Falls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Taieri Island / Moturata	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Due to the values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

#### Known fire hazards

There are no long-term fire hazards listed in this zone in the Fire Hazard Removal Case Management System.

#### Frequency of elevated fire danger

On average, this zone experiences less than 1 day of very high to extreme fire danger per year.

**Fire history**

The known fire history for this zone for wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
2012	Berwick Forestry	Powerlines
2020	Waipori Falls	Powerlines
2021	Conical Hill	Slash pile
2023	Glenledi Road	Suspicious

**Predominant fuel type**

This zone is predominately productive grassland, but the most relevant fuel type when considering fire risk in this zone is forestry. The triggers below are based on mixed grassland and forest, with a deliberate bias toward build-up index (BUI).

**Thresholds****Fire seasons**

Build-up Index (BUI) and the degree of grass curing (GC%) are the most relevant fire weather indices to monitor where there is a mixture of forestry and grasslands as the predominant fuel types.

We have lowered the threshold to declare a restricted season in this zone to mitigate the threat to and from the increasing afforestation of this zone, and to offset the removal of legacy 'margins' and year-round restricted season that were in place around many commercial forests. The triggers are similar to those used in areas where the predominant fuel type is forest.

We will use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in this zone. We may also consider other [fire risk conditions](#).

Grass curing (%)	Build-up Index (BUI)		
	0–30	30–60	> 60
0–50	Open	Restricted	Prohibited
50–70	Open	Restricted	Prohibited
>70	Restricted	Prohibited	Prohibited

**Interpreting this matrix:**

Open	Open fire season
Open/Restricted	Open fire season but we may move to a restricted season earlier if forecast conditions support this.
Restricted	Restricted fire season
Restricted/prohibited	Restricted fire season, but we may move to a prohibited season earlier if forecast conditions support this or stay in a prohibited season longer if grasses remain dry and cured.
Prohibited	Prohibited fire season

### Prohibition on fires in open air (section 52)

We can use the same Fire Weather System trigger thresholds for prohibiting fires in the open air under section 52 as we do for changing to a prohibited fire season but use section 52 when the fire risk conditions are not expected to last long enough to justify changing to a prohibited fire season.

Other local thresholds have not been set.

### Prohibitions or restrictions on activities (section 52)

Localised trigger thresholds for applying section 52 to activities have not yet been developed. However, there are some local mitigations used to reduce the need to implement it.

#### Forestry operations

Fire and Emergency work closely with forest companies and their contractors to keep them informed of the fire danger rating so they can make an informed decision on forestry activities during high fire danger.

Fire and Emergency has forestry services agreements with the following major stakeholders. These agreements contain information about the forest land, firefighting resources, and other essential operational details.

- Wenita Forest Products
- City Forest Ltd
- Port Blakely Ltd
- Ernslaw One Ltd
- Calder Stewart Ltd.

[Forest fire risk management guidelines](#) contain advice on mitigating the risks.

#### Roadside mowing

Fire and Emergency will work with local councils and their contractors to keep them informed of any fire danger and spike days across the Otago District, so they can make an informed decision not to carry out roadside mowing during heightened fire danger.

[www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws](http://www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws)

#### Powerline auto-reclosures

Fire and Emergency will work with power companies and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to automatically re-energise their lines if a fault occurs.

### Representative remote automated weather stations

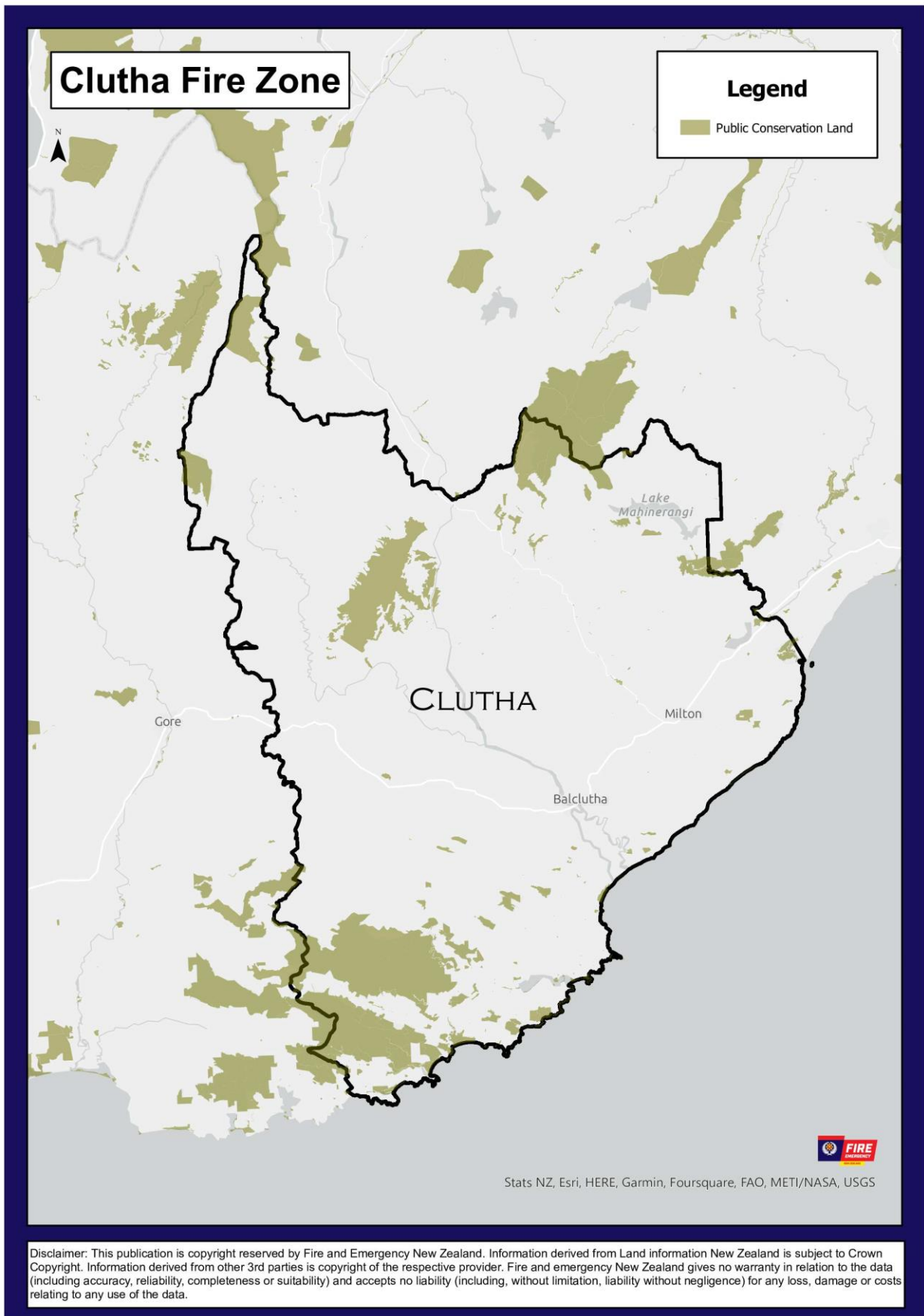
We use Remote Automated Weather Stations (RAWS) to determine whether we have reached the trigger thresholds and take an average across the relevant zone.

Clutha Zone	
Tokomairiro Mouth	Tapanui
Glendhu	Waipahi
Slopedown	Balclutha – Telford

We will consider the forecast for this/these location(s) when declaring or revoking a fire season.



### Clutha Zone Map



## Dunedin Zone

### Geography

The Dunedin Zone consists of about half of the Dunedin City Council territorial area, with the north-westerly half comprising Strath–Taiari Fire Zone.

The zone extends to the coastline from a line roughly drawn between Bucklands Crossing and Lee Flat. The southern boundary is formed by the Waipori and Taiari Rivers. The coastline extends for approximately 200 km and includes the Otago Harbour and Peninsula.

Dunedin is by far the most densely settled of the Otago zones: about 3.7 percent of the land is covered by built-up area. Dunedin Zone has a significant rural-urban interface risk, with lifestyle properties and structures constructed adjacent to, or even within, scrub and forest vegetation.

Dunedin City is situated at the head of Otago Harbour, a narrow inlet extending south-westward for some 24 km. The land area of greater Dunedin is approximately 3,314.8 km<sup>2</sup>.

Dunedin Zone has a variety of different landforms, formed by volcanic and tectonic activity. Otago Peninsula is primarily volcanic, with typically conical and hummocky hills. The western side includes schist block mountains and valleys, as seen in Central, but at lower elevation.

The Taiari Plains are broad, fertile lowland floodplains of the Taiari River and its major tributary, the Waipori. The area is moderately heavily settled and contains the towns of Mosgiel and Allanton. The plains lie between long low hills thrust up by active faults.

Much of the south and west of the zone are covered by production forest, notably around Berwick, Henley and around Mt Allan and the Silverpeaks, which is northwest of the Dunedin urban area.

To the north of the urban area is undulating hill country containing several small, mainly coastal settlements, including Waitati, Warrington, Seacliff and Waikouaiti. State Highway 1 winds steeply through a series of hills here, notably the Kilmog. These hills can be considered a coastal extension of the Silverpeaks Range.

### Climate/weather

Dunedin zone experiences variable rainfall, with the average annual rainfall ranging from around 650mm on the Taiari Plain to around 970mm in north Dunedin.

It has mid to high temperatures during summer, up to 37.7°C, with 20 days a year hotter than 25°C, and the occasional strong westerly wind.

Conditions are tempered by relatively cool sea surface temperatures nearby and by the absence of shelter from airflows moving over the area from the south and southwest.

Warmer, drier northwest Fohn winds are also characteristic through the coastal zone during spring and summer months.

The circle of hills surrounding Dunedin's inner suburbs shields much of the area from the prevailing weather, while hills just to the west of the city can often push inclement weather around to the west of the city.

Moving further inland the irregular topography of the hinterlands, with its many mountain ranges, has a considerable influence on the weather experienced across the district and can be quite variable.

During the summer months, anticyclones and ridges of high pressure typically result in fine and calm weather across the coastal zone interspersed with windy dry days.

### Land cover/ land use

The Dunedin Zone has a broad mix of urban settlements, farmland, forestry and high-value public conservation land.

The predominant land cover is high-producing exotic grasslands (44 percent), followed by exotic forests (12.5 percent) and low-producing grassland (8.6 percent). Notably, over 8 percent of Dunedin Zone is covered by mānuka/kānuka scrub.

### Industry

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Primary production, including horticulture and agriculture <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Use of fire for land management</li> <li>• Relevant operations affected</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Forestry <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Use of firebreaks</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ravensdown Fertiliser <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Apiculture (beekeeping) <ul style="list-style-type: none"> <li>• Use of smoke</li> <li>• Use of fire to destroy infested hives</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• Impacted by restrictions on activities for suppliers</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules</li> <li>• Access to locations may be restricted</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Lifeline  
utilities/other  
infrastructure**

Lifeline utility/ other infrastructure	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in high fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dunedin Airport <ul style="list-style-type: none"> <li>• Requirement under CAA rules for notification and permission for burns in flight path</li> <li>• Protected by own controls on use of fire and other activities in vicinity</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Electricity distribution network <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transpower national grid/substations <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dunedin City Council Three Waters <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Railway line <ul style="list-style-type: none"> <li>• Sparks from passing trains and during track maintenance</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rooding network (SH1, SH85, SH86, SH87 and SH88) <ul style="list-style-type: none"> <li>• Sparks or heat from moving or parked vehicles</li> <li>• Spark causing activities during road maintenance and mowing</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Telecommunications network <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Natural gas distribution network <ul style="list-style-type: none"> <li>• Gas leaks</li> <li>• Protected by own controls on use of fire and other activities in vicinity</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

## Recreational locations

Dunedin Zone has many recreational outdoor activities and sporting fixtures that can and have been impacted in the past by wildfire.

Due to the high student population, there is a lot of recreational and arts activity all year round, much of which interacts with the natural environment: beaches, exotic forests, recreational parks and reserves.

Forested reserves and other recreational areas may need to be closed to the public if the forest fire danger level warrants it. This may affect some recreational activities or events.

## Cultural and recreational activities and events

Dunedin Zone is home to the marae of Kāti Huirapa Rūnaka ki Puketeraki and Te Rūnanga o Ōtākou, at Karitāne and Ōtākou respectively. There are very many places of significance to Māori and iwi-owned assets in the area which may need protection from fire or damage during firefighting.

Many customary and contemporary Māori activities involve the use of fire. Fire and Emergency must consider the impact of decisions upon Māori when exercising fire control powers. The relevant iwi and rūnanga for this zone are therefore listed as stakeholders.

Dunedin frequently hosts major sporting fixtures, concerts, festivals and outdoor gatherings. Sometimes organisers or participants wish to use fire, indoor or outdoor pyrotechnics, or involve heat or spark-generating activities, which could be affected by fire control decisions. Some of these events are held within wildfire-prone or special risk zones and require advice or direction from Fire and Emergency to mitigate risks.

Restrictions or prohibitions of fire or activities must be reasonable and proportionate to fire risk conditions, to avoid unreasonable impact on people living and enjoying recreational activities in this zone.

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>Use may be prohibited during periods of elevated fire danger</li> <li>Pyrotechnics managed by other approvals</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hunting <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain biking, horse riding, back country running	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	<ul style="list-style-type: none"> <li>Access may be restricted during periods of elevated fire danger</li> </ul>			
	Camping and tramping <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>Special risk zones</b>	<b>Special risk zone</b>	<b>Contributes to increased risk of fire in high-risk conditions</b>	<b>Affected by use of fire control measures</b>	<b>Needs to be protected by using of fire control measures</b>
	Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Mopanui, including Doctor's Point and Orokonui Eco-Sanctuary	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Taiaroa Head and the Royal Albatross Centre	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Penguin Beach – hoiho habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Flagstaff – Whānau paki and Swampy Summit – Whawha-raupō	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Silverstream and Silverpeaks forests and water catchment area	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Mount Cargill and Mihiwaka	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Due to the ecological values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

**Known fire hazards** There are no long-term fire hazards listed in this zone in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger** On average, this zone experiences less than 6.4 days of very high to extreme fire danger.

**Fire history** The known fire history for this zone for significant wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
2010	Mount Allan – 800 hectares	Forestry operations – chainsaw
2012	Berwick Forest – 30 ha	Powerlines
2018	Burnside industrial fire	Incorrect disposal of ashes
2019	Flagstaff	Suspicious

2019	Old Dunstan Road (Te Papanui) – 5,400 ha	Suspicious
2020	Hyde-Middlemarch – 80 ha	Camp cooker
2020	Waipori Fall	Powerlines
2021	Mount Allan	Skid site

### Predominant fuel type

This zone is a mixture of forest, grasslands, and scrublands.

### Thresholds

#### Fire seasons

Build-up Index (BUI) and the degree of grass curing (GC%) are the most relevant fire weather indices to monitor where there is a mixture of forestry and grasslands as the predominant fuel types.

We have lowered the threshold to declare a restricted season to mitigate the threat to and from production forestry, and to offset the removal of legacy 'margins' and year-round restricted season that was in place around many commercial forests. The triggers are similar to those used in areas where the predominant fuel type is forest.

We will use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in this zone. We may also consider other [fire risk conditions](#).

Grass curing	Build-up Index (BUI)		
(%)	0–30	30–60	> 60
0–50	Open	Restricted	Prohibited
50–70	Open	Restricted	Prohibited
>70	Restricted	Prohibited	Prohibited

#### Interpreting this matrix:

Open	Open fire season
Open/Restricted	Open fire season but we may move to a restricted season earlier if forecast conditions support this.
Restricted	Restricted fire season
Restricted/prohibited	Restricted fire season, but we may move to a prohibited season earlier if forecast conditions support this or stay in a prohibited season longer if grasses remain dry and cured.
Prohibited	Prohibited fire season

### Prohibition on fires in open air (section 52)

We can use the same Fire Weather System trigger thresholds for prohibiting fires in the open air under section 52 as we do for changing to a prohibited fire season but use section 52 when the fire risk conditions are not expected to last long enough to justify changing to a prohibited fire season.

Other local thresholds have not been set.

## Prohibitions or restrictions on activities (section 52)

Localised trigger thresholds for applying section 52 to activities have not yet been developed. However, there are some local mitigations used to reduce the need to implement it.

### Forestry operations

Fire and Emergency continues to work with its stakeholder organisations. We will continue working with forest companies and their contractors to keep them informed of the fire danger rating so they can make an informed decision on forestry activities during high fire danger.

Fire and Emergency has forestry services agreements with the following major stakeholders.

These agreements contain information about the forest land, firefighting resources, and other essential operational details.

- Wenita Forest Products
- City Forest Ltd
- Port Blakely Ltd
- Ernslaw One Ltd
- Calder Stewart Ltd

[Forest fire risk management guidelines](#) contain advice on mitigating the risks.

### Roadside mowing

Fire and Emergency will work with local councils and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to carry out roadside mowing during heightened fire danger.

[www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws](http://www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws)

### Powerline auto-reclosures

Fire and Emergency will work with power companies and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to automatically re-energise their lines if a fault occurs.

## Representative remote automated weather stations

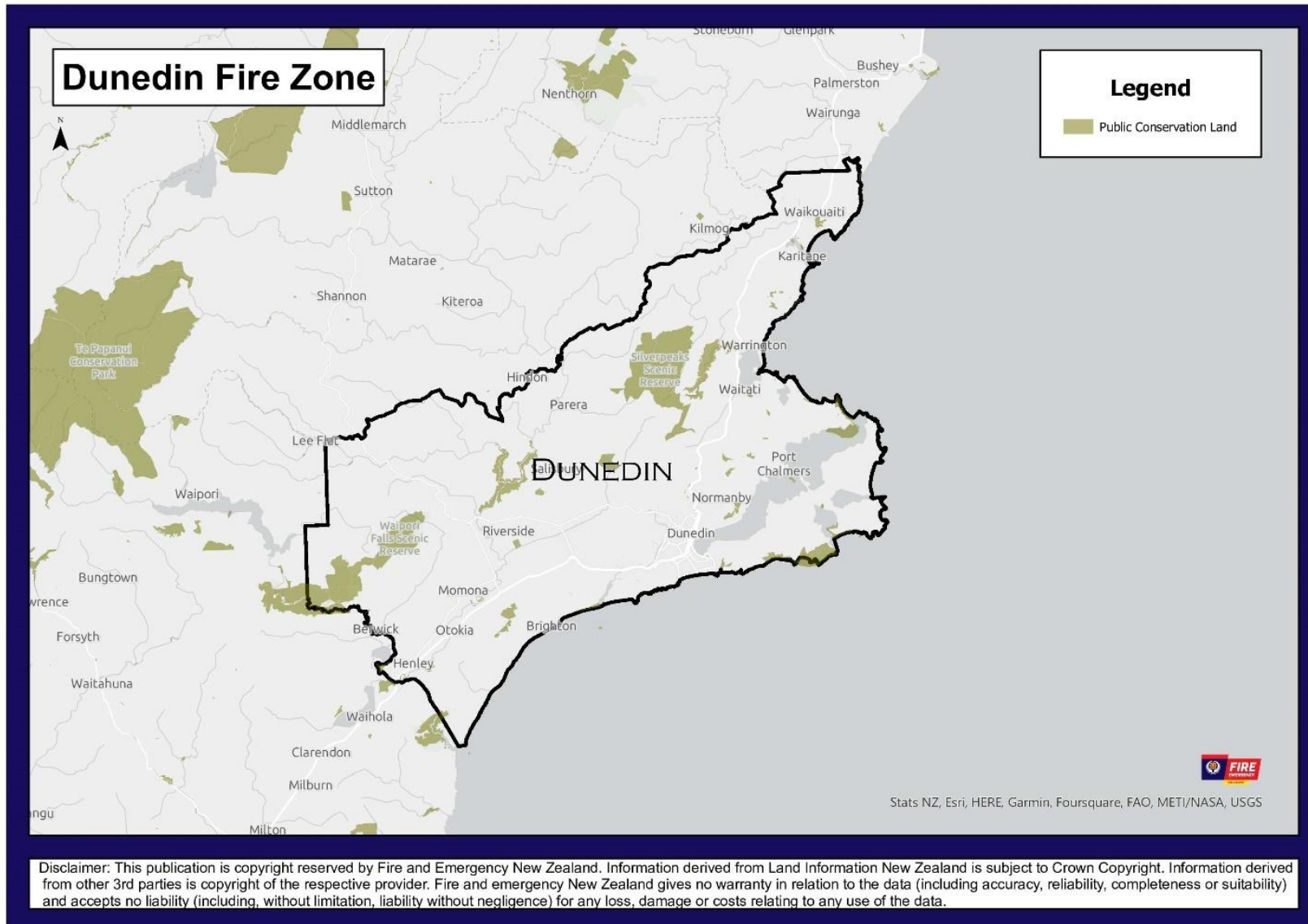
We use Remote Automated Weather Stations (RAWS) to determine whether we have reached the trigger thresholds and take an average across the relevant zone.

Dunedin Zone	
Dunedin Musselburgh	Bucklands
Dunedin AWS	Traquair

We will consider the forecast for this/these location(s) when declaring or revoking a fire season.



### Dunedin Zone Map



## Strath Taieri Zone

### Geography

The Strath Taieri Zone is essentially the north-western half of the Dunedin City Council territorial area, with the south-eastern half comprising Dunedin Fire Zone. This new zone was created as the fire risk conditions are distinct from the fire zones on either side, and people living in the area didn't know which fire zone they were part of.

The Strath Taieri Zone contains the small town of Middlemarch, one of the area's few concentrations of population.

The zone extends from the Rock and Pillars range in the west, to a line extending from Bucklands Crossing down to Lee Flat.

The zone holds most of Te Papanui conservation park, valued both as a water catchment for Dunedin and for its open space.

### Climate/weather

Strath Taieri receives significantly less rain than Dunedin, with annual average rainfall of 495 mm – around the same as in neighbouring Central Otago.

Diurnal variation (variations throughout the day) in wind speed and temperature is significant in the Strath Taieri. North-westerly winds often reach gale strength.

Seasonal variation is also significant: Middlemarch reaches freezing point on an average of 90 days of the year but enjoys around 33 days over 25°C. Winter and spring frost curing and summer wind and heat can generate very high grass curing values in the area, especially on north- and west-facing slopes.

### Land cover/ land use

The predominant vegetation is grass - over 68 percent is low-producing or tussock grassland, and about 24 percent is productive grass.

No other land cover type accounts for more than 2 percent of total land cover.

The land is primarily used for extensive agriculture, with a few more intensive operations in the irrigated areas. Large areas of tussock grassland form part of the public conservation estate. There are no large forests in this zone, although there are some important indigenous forest remnants in some of the deeper gullies and gorges.

### Industry

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Primary production, including horticulture and agriculture <ul style="list-style-type: none"> <li>Use of machinery – sparks</li> <li>Use of fire for land management</li> <li>Relevant operations affected</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apiculture (beekeeping)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Lifeline  
utilities/other  
infrastructure**

<ul style="list-style-type: none"> <li>• Use of smoke</li> <li>• Use of fire to destroy infested hives</li> </ul>			
<ul style="list-style-type: none"> <li>• Impacted by restrictions on activities for suppliers</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules</li> <li>• Access to locations may be restricted</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Lifeline utility/ other infrastructure</b>	<b>Contributes to increased risk of fire in high-risk conditions</b>	<b>Affected by use of fire control measures</b>	<b>Needs to be protected by using fire control measures</b>
Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in high fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transpower national grid/substations <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Dunedin City Council 3 Waters <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Railway line <ul style="list-style-type: none"> <li>• Sparks from passing trains and during track maintenance</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roothing network (SH87) <ul style="list-style-type: none"> <li>• Sparks or heat from moving or parked vehicles</li> <li>• Spark causing activities during road maintenance and mowing</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Telecommunications network <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Recreational locations

The higher-altitude conservation land in the area is popular with four-wheel drive and off-road motorbike enthusiasts, hunters, trampers and mountain bikers. Most of these areas are closed or inaccessible during winter but are occasionally used by trampers and cross-country skiers.

The Otago Central Rail Trail passes through the zone and is also most popular during the summer months.

### Cultural and recreational activities and events

We will consult with tangata whenua and consider the needs of iwi when making decisions about implementing restrictions or prohibitions with our fire control powers. The relevant iwi and rūnanga for this zone are listed as stakeholders.

Restrictions or prohibitions of fire or activities must be reasonable and proportionate to fire risk conditions, so as to avoid unreasonable impact on people living and enjoying recreational activities in this zone.

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>Use may be prohibited during high fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hunting <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during high fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain biking, horse riding, back country running <ul style="list-style-type: none"> <li>Access may be restricted during high fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Camping and tramping <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Special risk zone	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

• In own zone to apply separate controls			
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Due to the values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

**Known fire hazards** There are no long-term fire hazards listed in this zone in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger** On average, this zone experiences less than 6.4 days of very high to extreme fire danger.

**Fire history** The known fire history for this zone for significant wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
2010	Mount Allan – 800 hectares	2010
2012	Berwick forest – 30 ha	2012
2018	Burnside industrial fire	2018
2019	Flagstaff	2019
2019	Old Dunstan Road (Te Papanui) – 5400 ha	2019
2020	Hyde-Middlemarch – 80 ha	Camp cooker
2020	Waipori Fall	Powerlines

**Predominant fuel type** This zone is a mixture of forestry, grasslands, and scrublands.

## Thresholds

**Fire seasons** Build-up Index (BUI) and the degree of grass curing (GC%) are the most relevant fire weather indices to monitor where there is a mixture of forestry and grasslands as the predominant fuel types.

We will use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in this zone. We may also consider other [fire risk conditions](#).

Grass curing (%)	Build-up Index (BUI)		
	0–40	40–60	> 60
0–50	Open	Open	Prohibited
50–80	Open	Restricted	Prohibited
80–100	Restricted	Prohibited	Prohibited

**Interpreting this matrix:**

Open	Open fire season
Open/Restricted	Open fire season but we may move to a restricted season earlier if forecast conditions support this.
Restricted	Restricted fire season
Restricted/prohibited	Restricted fire season but we may move to a prohibited season earlier if forecast conditions support this or stay in a prohibited season longer if grasses remain dry and cured.
Prohibited	Prohibited fire season

**Prohibition on fires in open air (section 52)**

We can use the same Fire Weather System trigger thresholds for prohibiting fires in the open air under section 52 as we do for changing to a prohibited fire season but use section 52 when the fire risk conditions are not expected to last long enough to justify changing to a prohibited fire season.

Other local thresholds have not been set.

**Prohibitions or restrictions on activities (section 52)**

Localised trigger thresholds for applying section 52 to activities have not yet been developed. However, there are some local mitigations used to reduce the need to implement it.

**Forestry operations**

Fire and Emergency continues to work with its stakeholder organisations. We will continue working with forest companies and their contractors to keep them informed of the fire danger rating so they can make an informed decision on forestry activities during high fire danger.

Fire and Emergency has forestry services agreements with the following major stakeholders.

These agreements contain information about the forest land, firefighting resources, and other essential operational details.

- Wenita Forest Products
- City Forest Ltd
- Port Blakely Ltd
- Ernslaw One Ltd
- Calder Stewart Ltd

[Forest fire risk management guidelines](#) contain advice on mitigating the risks.

**Roadside mowing**

Fire and Emergency will work with local councils and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to carry out roadside mowing during heightened fire danger.

[www.checkitalright.nz/reduce-your-risk/mowers-chainsaws](http://www.checkitalright.nz/reduce-your-risk/mowers-chainsaws)

**Powerline auto-reclosures**

Fire and Emergency will work with power companies and their contractors to keep them informed of any fire danger and spike days across the Otago District so they

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can make an informed decision not to automatically re-energise their lines if a fault occurs.

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**Representative  
remote automated  
weather stations**

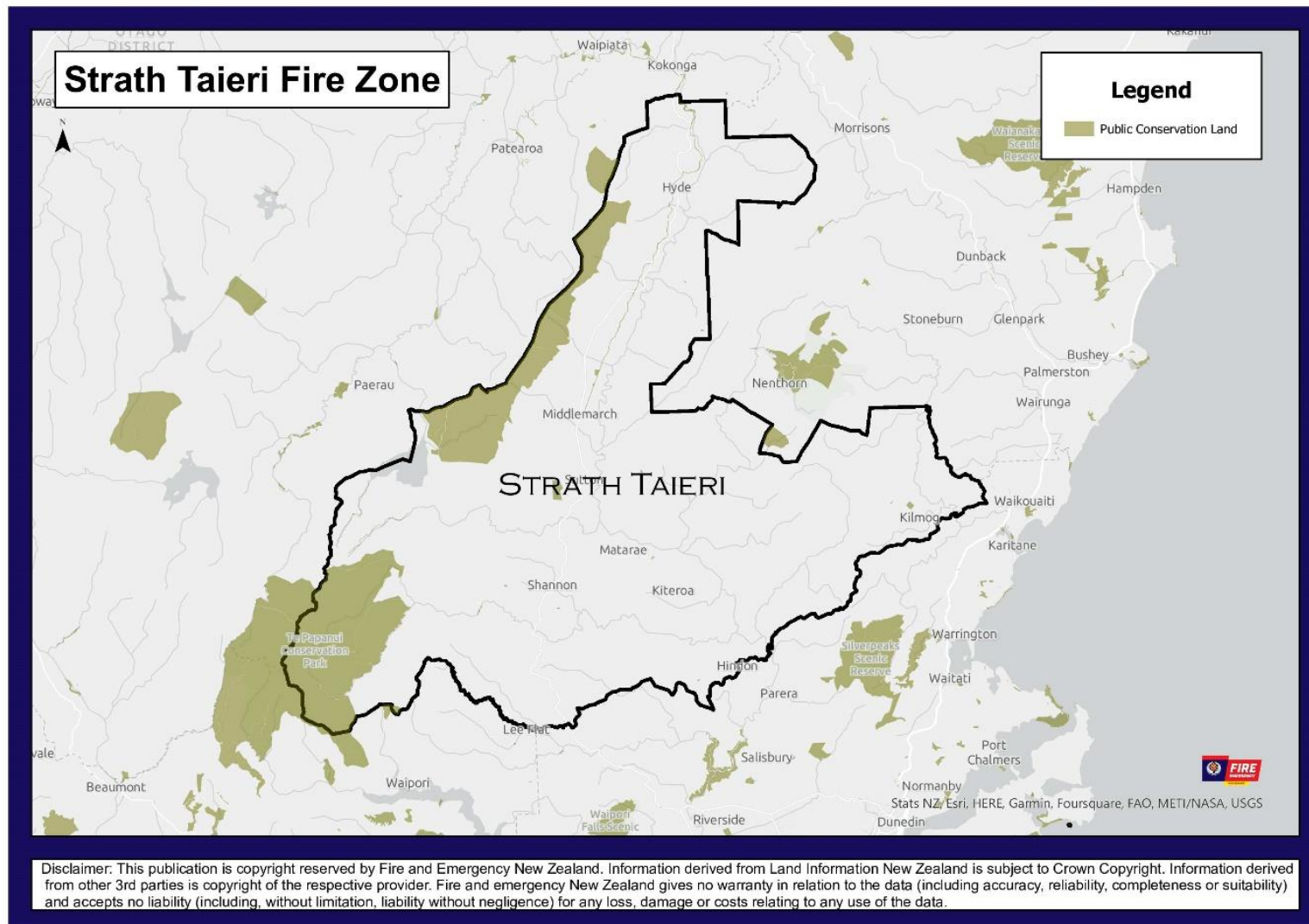
We use Remote Automated Weather Stations (RAWS) to determine whether we have reached the trigger thresholds and take an average across the relevant zone.

Strath-Taieri Zone	
Middlemarch	Rock and Pillar
Macraes	Traquair

We will consider the forecast for this/these location(s) when declaring or revoking a fire season.

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### Strath Taieri Zone Map





## Coastal Waitaki Zone

### Geography

Waitaki District is unusual as it overlaps two regions: Otago and Canterbury.

The Coastal Waitaki zone includes the territory of the Waitaki District Council from the Pacific coastline up the Waitaki Valley as far as Otiake Road (just before but not including Kurow), encompassing the towns of Oamaru, Palmerston, Hampden, Macraes and Duntroon, the lower Waitaki valley and delta (on the south side of the river)..

### Climate/weather

The Coastal Waitaki Zone has variable rainfall, with average rainfall around 968 mm. It has mid to high temperatures during summer, up to 37.7°C with 20 days in excess of 25°C, and occasional severe to gale force westerly wind events during fire season.

### Land cover/ land use

The Coastal Zone (Waitaki) has a wide range of farmland, forestry, and high-value public conservation land.

Land is predominately used for agriculture.

Over 80 percent of Coastal Waitaki is grassland, with exotic forest the only other significant vegetation type - accounting for more than 6 percent of land cover.

### Industry

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Primary production, including horticulture and agriculture <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Use of fire for land management</li> <li>• Relevant operations affected</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Forestry and private forestry block owners <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Use of firebreaks</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Oceana Gold – Macraes Gold Mine <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Hot works and fire for refuse management in accordance with the company’s risk mitigation plans</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apiculture (beekeeping) <ul style="list-style-type: none"> <li>• Use of smoke</li> <li>• Use of fire to destroy infested hives</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• Impacted by restrictions on activities for suppliers</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Lifeline  
utilities/other  
infrastructure**

Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules</li> <li>• Access to locations may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Lifeline utility/ other infrastructure</b>	<b>Contributes to increased risk of fire in high-risk conditions</b>	<b>Affected by use of fire control measures</b>	<b>Needs to be protected by using fire control measures</b>
Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in periods of elevated fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Waitaki District Council Three Waters <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Railway line <ul style="list-style-type: none"> <li>• Sparks from passing trains and during track maintenance</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roothing network (SH1, SH83 and SH85) <ul style="list-style-type: none"> <li>• Sparks or heat from moving or parked vehicles</li> <li>• Spark causing activities during road maintenance and mowing</li> <li>• May be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural gas distribution network <ul style="list-style-type: none"> <li>• Gas leaks</li> <li>• Protected by own controls on use of fire and other activities in vicinity</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Telecommunications network <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Recreational  
locations**

The Waitaki area is well known for its recreational activities. There are many recreational areas, camping grounds and public conservation areas throughout the zone that are heavily populated during the summer holiday season.

The Alps to Ocean Cycle Trail from Aoraki Mount Cook to Oamaru passes through areas of high fire danger. Sections of the trail are likely to be closed in the event of a fire in the vicinity.

### Cultural and recreational activities and events

Many customary and contemporary Māori activities involve the use of fire. Fire and Emergency must consider the impact of decisions upon Māori when exercising fire control powers. We will consult with tangata whenua and consider the needs of iwi when making decisions about implementing restrictions or prohibitions with our fire control powers. The relevant iwi and rūnanga for this zone are listed as stakeholders.

Restrictions or prohibitions of fire or activities must be reasonable and proportionate to fire risk conditions, so as to avoid unreasonable impact on people living and enjoying recreational activities in this zone.

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>Use may be prohibited during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hunting <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain biking, horse riding, back country running <ul style="list-style-type: none"> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Camping and tramping <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Special risk zones

Special risk zone	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Matakaea Shag Point <ul style="list-style-type: none"> <li>Significant rural/urban interface risk</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Due to the values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the surrounding zone

goes to an open fire season, public conservation land will remain in a restricted fire season.

**Known fire hazards** There are no long-term fire hazards listed in this zone in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger** On average, this zone experiences less than 6.4 days of very high to extreme fire danger.

The number of days in extreme and very high fire dangers has limited effect on recreational activities in the Coastal Waitaki zone but does impact on agricultural activities such as forestry and cropping.

**Fire history** The known fire history for this zone for wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
2015	Stoneburn (100 ha)	Powerlines
2015	Waitaki rail fires	Train
2016	Waitaki Island (72 ha)	Suspicious
2019	Dunback (10 ha)	Powerlines
2019	Duntroon (10 ha)	Escaped unpermitted burn
2020	Mountain Track Road (30 ha)	Escaped burn
2020	Gold Bar Road (100 ha)	Escaped burn
2020	McKenzie Road (Livingstone) (620 ha)	Powerlines
2020	Pringle Gully Road (10 ha)	Escaped unpermitted burn

**Predominant fuel type** This zone is a mixture of forestry and grasslands.

## Thresholds

**Fire seasons** Build-up Index (BUI) and the degree of grass curing (GC%) are the most relevant fire weather indices to monitor where there is a mixture of forestry and grasslands as the predominant fuel types.

We will use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in this zone. We may also consider other [fire risk conditions](#).

Grass curing (%)	Build-up Index (BUI)		
	0–40	40–60	> 60
0–50	Open	Open/Restricted	Restricted/Prohibited
50–70	Open	Restricted	Prohibited
>70	Restricted	Prohibited	Prohibited

**Interpreting this matrix:**

Open	Open fire season
Open/Restricted	Open fire season but we may move to a restricted season earlier if forecast conditions support this.
Restricted	Restricted fire season
Restricted/prohibited	Restricted fire season, but we may move to a prohibited season earlier if forecast conditions support this or stay in a prohibited season longer if grasses remain dry and cured.
Prohibited	Prohibited fire season

**Prohibition on fires in open air (section 52)**

We can use the same Fire Weather System trigger thresholds for prohibiting fires in the open air under section 52 as we do for changing to a prohibited fire season but use section 52 when the fire risk conditions are not expected to last long enough to justify changing to a prohibited fire season.

Other local thresholds have not been set.

**Prohibitions or restrictions on activities (section 52)**

Localised trigger thresholds for applying section 52 to activities have not yet been developed, however there are some local mitigations used to reduce the need to implement it.

**Forestry operations**

Fire and Emergency continues to work with its stakeholder organisations. We will continue working with forest companies and their contractors to keep them informed of the fire danger rating so they can make an informed decision on forestry activities during high fire danger.

Fire and Emergency has forestry services agreements with the following major stakeholders.

These agreements contain information about the forest land, firefighting resources and other essential operational details.

- Wenita Forest Products
- City Forest Ltd
- Port Blakely Ltd
- Ernslaw One Ltd
- Calder Stewart Ltd.

[Forest fire risk management guidelines](#) contain advice on mitigating the risks.

**Roadside mowing**

Fire and Emergency will work with local councils and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to carry out roadside mowing during heightened fire danger.

[www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws](http://www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws)

**Powerline auto-reclosures**

Fire and Emergency will work with power companies and their contractors to keep them informed of any fire danger and spike days across the Otago District so they

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can make an informed decision not to automatically re-energise their lines if a fault occurs.

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**Representative  
remote automated  
weather stations**

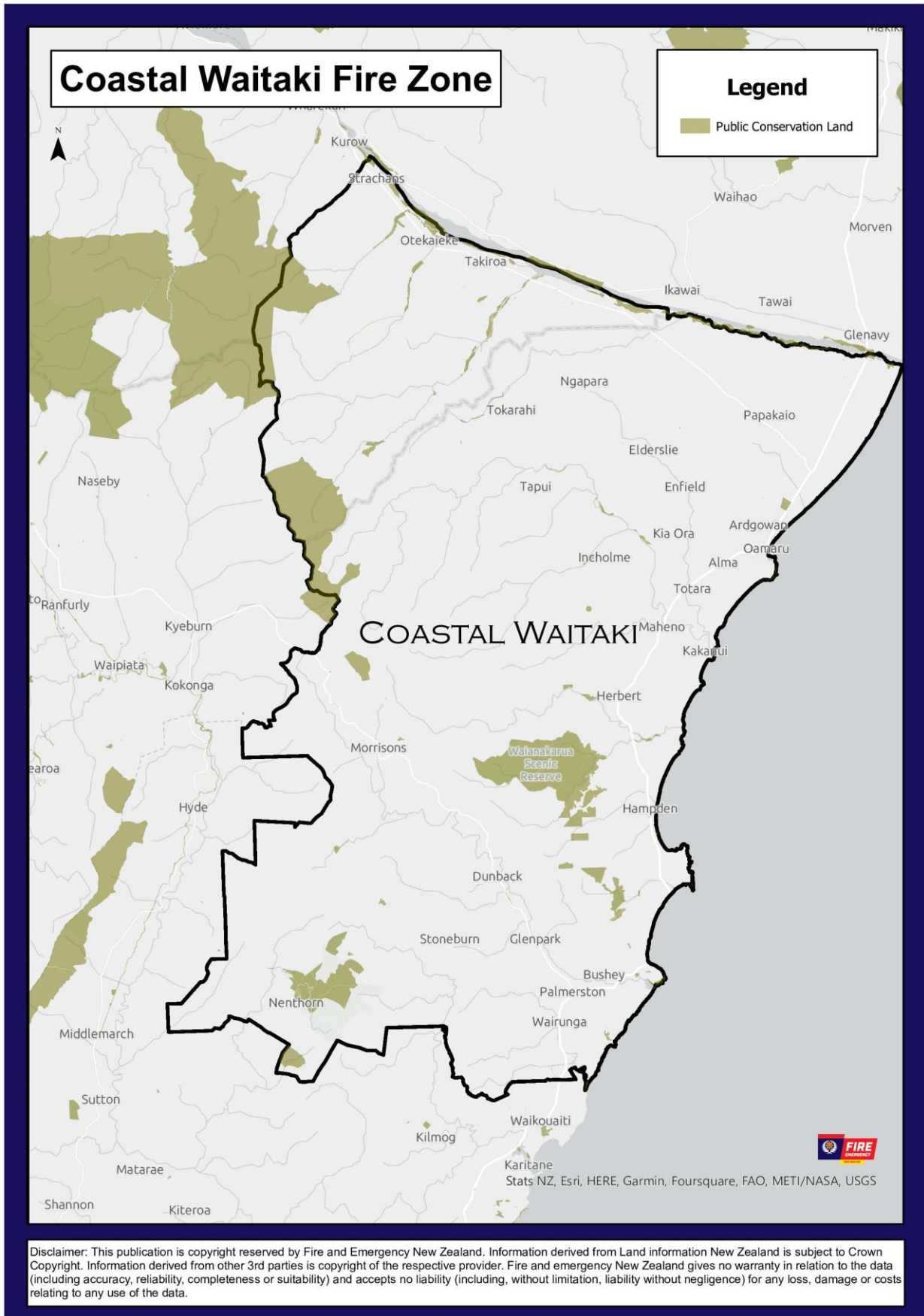
We use Remote Automated Weather Stations (RAWS) to determine whether we have reached the trigger thresholds and take an average across the relevant zone.

Coastal Waitaki Zone	
Oamaru Airport AWS	Bucklands
Oamaru North	Windsor
Herbert	Macraes

We will consider the forecast for this/these location(s) when declaring or revoking a fire season.

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### Coastal Waitaki Zone Map



## Upper Waitaki Zone

### Geography

The Upper Waitaki Zone was formerly part of Central Zone, because they share a number of characteristics and similar fire risk conditions but has been split off to allow for fire controls to be applied in a more targeted way if necessary.

Upper Waitaki includes the territory of the Waitaki District Council northwest of Otiake Road, encompassing the towns of Kurow, Otematata, Ōmārama, and Lake Ōhau village. The zone terminates at the border with South Canterbury District on the eastern shore of Lake Ōhau and the Ōhau River, in the area popularly known as the Mackenzie Country.

Upper Waitaki Zone includes a large portion of the expansive Ōteake Conservation Park, a primarily tussock-covered high-altitude open space, sections of Te Araroa Trail, and the upper sections of the Alps 2 Ocean Cycle Trail.

### Climate/weather

The Upper Waitaki Zone climate and weather is dominated by the ‘rain-shadow’ effect of the Southern Alps and predominately north-westerly winds, which often reach severe gale strength, particularly in spring. Marked diurnal variation in wind strength is a feature of the Mackenzie basin, with winds generally strongest mid-afternoon.

Rainfall in the Mackenzie basin and upper Waitaki valley is nearly as low as parts of Central Otago at an average of around, or even less than, 500 mm annually. Median temperatures are generally cool at around 6–10 degrees, depending on altitude. Maximums and minimums fluctuate wildly: up to 35°C in summer, with 25 days in excess of 25°C, and down as low as -21°C in winter. Ōmārama drops below freezing on 88 days of the year on average.

### Land cover/ land use

Due to its generally poor stony soils, high winds and low rainfall, the zone has predominately low-producing cover. Around three-quarters of the area is covered by tussock grassland, low-producing grassland, gravel or rock, depleted grassland, or sub-alpine low scrub, suitable only for extensive farming or open-space conservation.

Modern irrigation methods have enabled parts of the basin and valley to be used for more intensive agriculture, horticulture and viticulture.

Like Central Otago, the landscape is generally dun-coloured, with expansive open spaces and an alpine backdrop. Less than 1 percent of the area is covered by built settlement.

### Industry

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Primary production, including horticulture and agriculture <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Use of fire for land management</li> <li>• Relevant operations affected</li> </ul>	☒	☒	☒



**Lifeline  
utilities/other  
infrastructure**

Apiculture (beekeeping) <ul style="list-style-type: none"> <li>• Use of smoke</li> <li>• Use of fire to destroy infested hives</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules</li> <li>• Access to locations may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Lifeline utility/ other infrastructure</b>	<b>Contributes to increased risk of fire in high-risk conditions</b>	<b>Affected by use of fire control measures</b>	<b>Needs to be protected by using fire control measures</b>
Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in periods of elevated fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Waitaki District Council Three Waters <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Railway line <ul style="list-style-type: none"> <li>• Sparks from passing trains and during track maintenance</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roothing network (SH8, SH83) <ul style="list-style-type: none"> <li>• Sparks or heat from moving or parked vehicles</li> <li>• Spark causing activities during road maintenance and mowing may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural gas distribution network <ul style="list-style-type: none"> <li>• Gas leaks</li> <li>• Protected by own controls on use of fire and other activities in vicinity</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Telecommunications network <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Recreational locations

The Waitaki area is well known for its recreational activities. There are many recreational areas, camping grounds and public conservation areas throughout the zone that are heavily populated during the summer holiday season.

The Alps 2 Ocean Cycle Trail from Aoraki Mount Cook to Oamaru passes through areas of high fire risk. Sections of the trail may be closed in the event of a fire in the vicinity.

### Cultural and recreational activities and events

Many customary and contemporary Māori activities involve the use of fire. Fire and Emergency must consider the impact of decisions upon Māori when exercising fire control powers. The relevant Rūnanga for this zone are therefore listed as stakeholders.

Restrictions or prohibitions of fire or activities must be reasonable and proportionate to fire risk conditions, to avoid unreasonable impact on people living and enjoying recreational activities in this zone.

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>Use may be prohibited during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hunting <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain biking, horse riding, back country running <ul style="list-style-type: none"> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Camping and tramping <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Special risk zones**

Special risk zone	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lake Ōhau village and lakeshore <ul style="list-style-type: none"> <li>Generally higher fire risk, year-round</li> <li>Tourists with little to no knowledge of fire risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Due to the values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

**Known fire hazards**

There are no long-term fire hazards listed in this zone in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger**

On average, this zone experiences less than 6.4 days of very high to extreme fire danger.

The number of days in extreme and very high fire dangers has limited effect on recreational activities in the Waitaki area of the coastal zone but does impact on agricultural activities such as forestry and cropping.

**Fire history**

The known fire history for this zone for significant wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
2017	Otematata Station Fire (150Ha)	Undetermined
2019	Ōmārama Hay Bale Fire	Exothermic reaction / Spontaneous combustion
2020	Lake Ōhau Fire (5043Ha)	Powerlines

**Predominant fuel type**

This zone is mainly grassland, with mixed forest and scrub in areas of high fire risk.

## Thresholds

### Fire seasons

Build-up Index (BUI) and the degree of grass curing (GC%) are the most relevant fire weather indices to monitor where there is a mixture of forestry and grasslands as the predominant (or most significant) fuel types.

Fire season triggers for Upper Waitaki mirror those for Central Otago, as the two zones were previously one, and are similar in terms of land cover, land use and climate. The zones were split to allow for fire seasons to be declared or revoked at different times if necessary, and to be more logical to those living in the zones.

We will use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in this zone. We may also consider other [fire risk conditions](#).

Grass curing (%)	Build-up Index (BUI)		
	0–40	40–80	> 80
0–60	Open	Open	Prohibited
60–90	Open	Restricted	Prohibited
>90	Restricted	Prohibited	Prohibited

#### Interpreting this matrix:

Open	Open fire season
Open/Restricted	Open fire season but we may move to a restricted season earlier if forecast conditions support this.
Restricted	Restricted fire season
Restricted/prohibited	Restricted fire season, but we may move to a prohibited season earlier if forecast conditions support this or stay in a prohibited season longer if grasses remain dry and cured.
Prohibited	Prohibited fire season

### Prohibition on fires in open air (section 52)

We can use the same Fire Weather System trigger thresholds for prohibiting fires in the open air under section 52 as we do for changing to a prohibited fire season but use section 52 when the fire risk conditions are not expected to last long enough to justify changing to a prohibited fire season.

Other local thresholds have not been set.

### Prohibitions or restrictions on activities (section 52)

Localised trigger thresholds for applying section 52 to activities have not yet been developed. However, there are some local mitigations used to reduce the need to implement it.

#### Forestry operations

Upper Waitaki zone does not include any significant areas of production forestry.

**Roadside mowing**

Fire and Emergency will work with local councils and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to carry out roadside mowing during heightened fire danger.

[www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws](http://www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws)

**Powerline auto-reclosures**

Fire and Emergency will work with power companies and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to automatically re-energise their lines if a fault occurs.

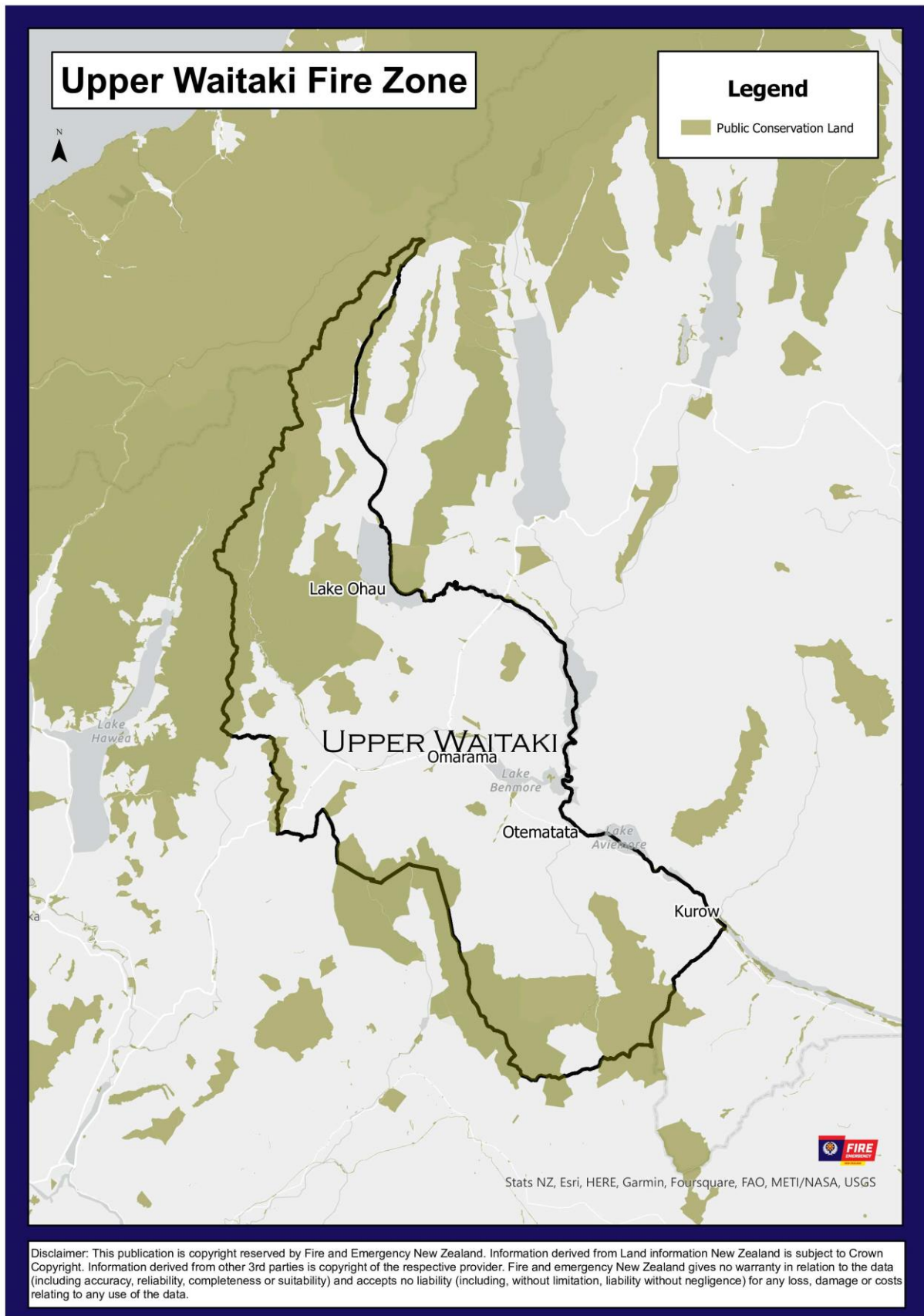
**Representative remote automated weather stations**

We use Remote Automated Weather Stations (RAWS) to determine whether we have reached the trigger thresholds and take an average across the relevant zone.

Upper Waitaki Zone	
Otematata	Tara Hills
Mueller Hut	Pukaki Aero

We will consider the forecast for this/these location(s) when declaring or revoking a fire season.

## Upper Waitaki Zone Map



## Lakes Zone

### Geography

One of New Zealand's premier tourism destinations for skiing, adventure excursions, scenic beauty, early mining history and significant wine industry.

The Lakes Zone is a mountainous region that sits on the eastern side of the main divide. Glaciation and alluvial deposits have contributed to the geography of the area.

### Climate/weather

The Lakes Zone experiences oceanic to semi-continental climatic conditions. Summers are typically dry and warm while winters can be extreme by New Zealand standards. Summer average maximum temperatures are between 21 to 24°C. Winter average lows are between 0 and -1.7° below zero.

Average annual rainfall is around 900 mm. Relative humidity can drop below 20 percent during the summer, causing light fuels to dry out quickly. Frost curing during the winter also increases fire risk by drying out light fuels

Weather patterns appear to be less predictable in recent years. This makes planning for fires much more difficult and riskier. Large pastoral burns may be impacted. An example is where a 'snow line' may be required before starting a prescribed burn. Traditional snow lines and their duration are changing with our changing climate.

### Land cover/ land use

The Lakes Zone has a wide range of land use and land cover. primary sector industries – pastoral farming as well as more intensive agriculture such as dairy, conservation estate, ski fields and back country skiing. Development and land use changes are particularly significant in this zone, with the built environment rapidly expanding into previously undeveloped natural environments, resulting in increasing rural-urban interface risk.

High tourist numbers have caused a growth in tourism opportunity activities – bungy, zip trek, jet boat and other water-based activities, mountain bike parks and walking/tramping opportunities including great walks. Tourists may increase the risk of fire by being unaware of local fire risk or fire controls; they may also be more at risk whilst recreating within wildfire-prone areas. Tourists are also more likely to depend upon agencies and services for relief in the event of an emergency. Measures to manage those risks may adversely impact the industries that exist to serve those tourists, which FENZ needs to weigh up when making decisions about fire or activity controls.

Most of the Lakes Zone has been deforested and heavily modified since human arrival, leaving over 60 percent of land covered by grass. More recently, wilding conifers have colonised some significant areas that were formerly grassland or shrubland.

Lake or pond water covers almost five percent of the land.

### Industry

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Primary production, including horticulture and agriculture	☒	☒	☒

**Lifeline  
utilities/other  
infrastructure**

<ul style="list-style-type: none"> <li>• use of machinery – sparks</li> <li>• use of fire for land management</li> <li>• relevant operations affected</li> </ul>			
Apiculture (beekeeping) <ul style="list-style-type: none"> <li>• Use of smoke</li> <li>• Use of fire to destroy infested hives</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• Impacted by restrictions on activities for suppliers</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules</li> <li>• Access to locations may be restricted (impacting industry)</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Lifeline utility/ other infrastructure</b>	<b>Contributes to increased risk of fire in high-risk conditions</b>	<b>Affected by use of fire control measures</b>	<b>Needs to be protected by using fire control measures</b>
Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in periods of elevated fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Railway line <ul style="list-style-type: none"> <li>• Sparks from passing trains and during track maintenance</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Queenstown Lakes District Council Three Waters <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roothing network (SH6 and 6A) <ul style="list-style-type: none"> <li>• Sparks or heat from moving or parked vehicles</li> <li>• Spark causing activities during road maintenance and mowing</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural gas distribution network <ul style="list-style-type: none"> <li>• Gas leaks</li> <li>• Protected by own controls on use of fire and other activities in vicinity</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Telecommunications network <ul style="list-style-type: none"> <li>• Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



## Recreational locations

The Lakes Zone experiences substantial numbers of visitors throughout the year. Tourism operators and recreationalists rely on the local landscapes for their activities. The summer months present the highest fire risk.

Many recreational/commercial sites right across the Lakes Zone could be impacted by restrictions during extreme fire weather events.

## Cultural and recreational activities and events

Many customary and contemporary Māori activities involve the use of fire. Fire and Emergency must consider the impact of decisions upon Māori when exercising fire control powers. The relevant Rūnanga for this zone are therefore listed as stakeholders.

Fire controls might have a particularly significant impact on major events and tourism activities, and therefore the local economy, in the Lakes Zone. All potential impacts of risk controls need to be weighed against the risk to life and other values when making decisions about whether to restrict or prohibit access or activities.

Restrictions or prohibitions of fire or activities must be reasonable and proportionate to fire risk conditions, so as to avoid unreasonable impact on people living and enjoying recreational activities in this zone.

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>Use may be prohibited during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hunting <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain biking, horse riding, back country running etc <ul style="list-style-type: none"> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Camping and tramping <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Increase in people without knowledge of fire risk or rules</li> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Special risk zones

Special risk zone	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mount Iron <ul style="list-style-type: none"> <li>Life, property, and environmental values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Queenstown Special risk zone <ul style="list-style-type: none"> <li>Life, property, and environmental values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ruby Island (Lake Wanaka) <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Stevensons Island (Lake Wanaka) <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mou Tapu and Mou Waho Islands (Lake Wanaka) <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Albert Town Recreational Reserve <ul style="list-style-type: none"> <li>Life, property, and environmental values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Glendhu Bluffs <ul style="list-style-type: none"> <li>Life, property, and environmental values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Due to the values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the

surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

Due to the values at risk, special risk zones have a different fire season to the rest of Lakes Zone. Refer to [Otago special risk zones](#) for more information.

**Known fire hazards** There are no long-term fire hazards listed in this zone in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger** On average, this zone experiences 11.7 days of very high to extreme fire danger.

**Fire history** The known fire history for this zone for significant wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
2005	Closeburn (150 ha)	Fireworks
2006	Remarkables (600 ha)	Escaped prescribed burn
2014	Wilson's Bay (3 ha)	Powerlines
2015	Aurum Terrace (1 ha)	Campfire – Special risk zone
2017	Rat Point (300 ha)	Campfire
2018	Mount Aspiring – Wanaka Road (191 ha)	Disposal of embers from BBQ
2019	Skippers	Unattended burn pile
2020	Ben Lomond (1000 ha)	Escaped prescribed burn
2023	Skippers Road	Undetermined

**Predominant fuel type** Predominantly grass, with some forest and scrub.

## Thresholds

**Fire seasons** For setting fire seasons, Build-up Index (BUI) is the most relevant fire weather index to monitor for where forest is the predominant fuel type.

Build-up Index (BUI) and the degree of grass curing (GC%) are the most relevant fire weather indices to monitor where there is a mixture of forestry and grasslands as the predominant fuel types. In Lakes zone, scrub and forest fuels at the rural-urban interface are fuels of concern. Fire controls are therefore justified if the build-up index value is 40 or greater, irrespective of grass-curing.

We will use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in this zone. We may also consider other [fire risk conditions](#).

Grass curing (%)	Build-up Index (BUI)		
	0–40	40–60	> 60
0–50	Open	Restricted	Prohibited
50–70	Open	Restricted	Prohibited
>70	Restricted	Prohibited	Prohibited

**Interpreting this matrix:**

Open	Open fire season
Open/Restricted	Open fire season but we may move to a restricted season earlier if forecast conditions support this.
Restricted	Restricted fire season
Restricted/prohibited	Restricted fire season, but we may move to a prohibited season earlier if forecast conditions support this or stay in a prohibited season longer if grasses remain dry and cured.
Prohibited	Prohibited fire season

**Prohibition on fires in open air (section 52)**

We can use the same Fire Weather System trigger thresholds for prohibiting fires in the open air under section 52 as we do for changing to a prohibited fire season but use section 52 when the fire risk conditions are not expected to last long enough to make changing to a prohibited fire season practical.

Other local thresholds have not been set.

**Prohibitions or restrictions on activities (section 52)**

Localised trigger thresholds for applying section 52 to activities have not yet been developed.

**Tourist activities and holidaymakers**

During holiday periods, the Lakes Zone experiences a vast influx of transient population visiting these areas, so it is important that these visitors are aware of the fire risk and safe behaviours they should adopt.

National campaigns provide awareness in various media forms. DOC also provides information around safe use of fire on their lands. Signage on roadsides and campgrounds also provide information.

**Forestry operations**

Fire and Emergency continues to work with its stakeholder organisations. We will continue working with forest companies and their contractors to keep them informed of the fire danger rating so they can make an informed decision on forestry activities during high fire danger.

Fire and Emergency has forestry services agreements with the following major stakeholders.

These agreements contain information about the forest land, firefighting resources, and other essential operational details.

- Wenita Forest Products
- City Forest Ltd
- Port Blakely Ltd
- Ernslaw One Ltd
- Calder Stewart Ltd

[Forest fire risk management guidelines](#) contain advice on mitigating the risks.

**Roadside mowing**

Fire and Emergency will work with local councils and their contractors to keep them informed of any fire danger and spike days across the Otago District so they

can make an informed decision not to carry out roadside mowing during heightened fire danger.

[www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws](http://www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws)

### Powerline auto-reclosures

Fire and Emergency will work with power companies and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to automatically re-energise their lines if a fault occurs.

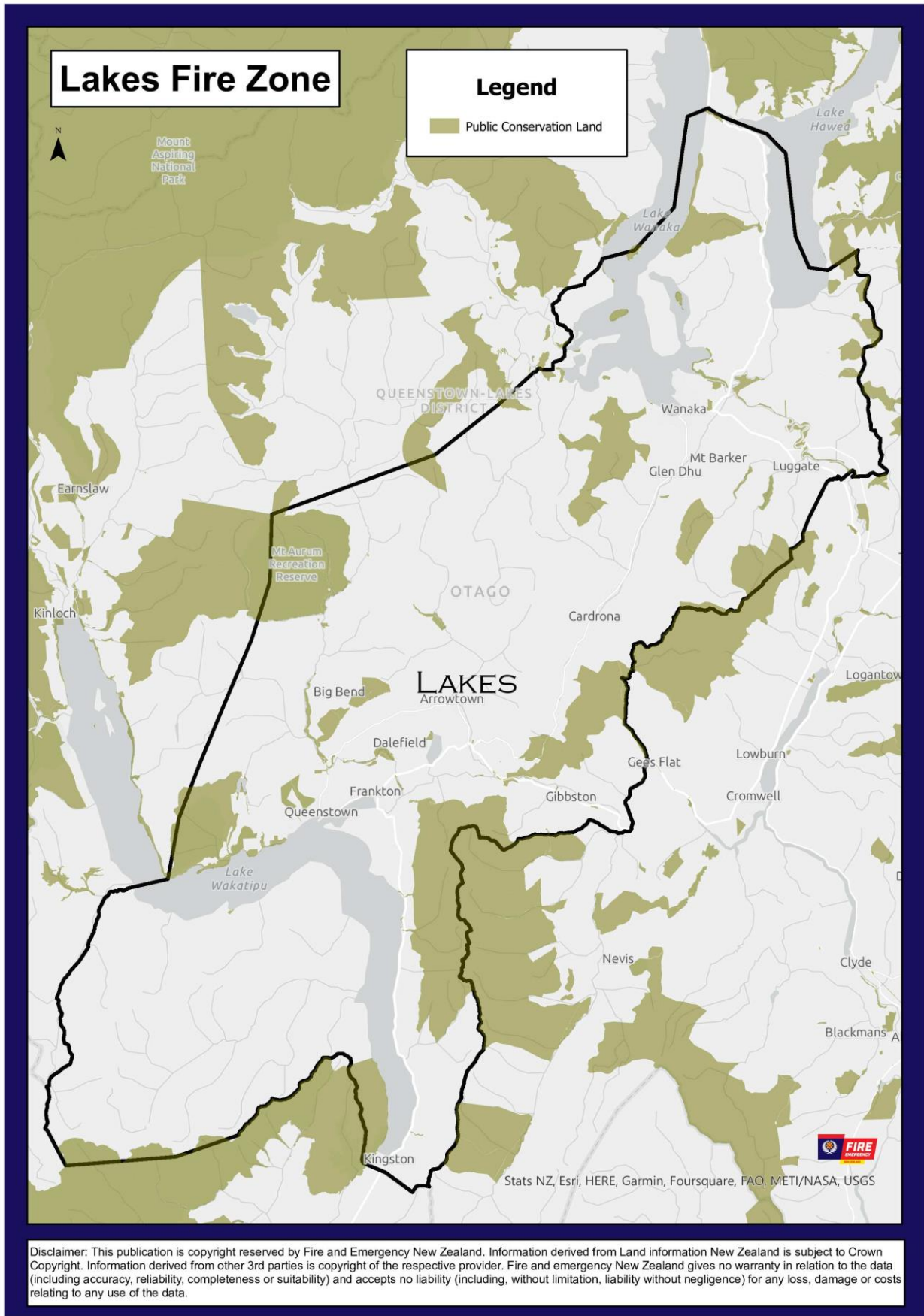
### Representative remote automated weather stations

We use Remote Automated Weather Station (RAWS) to determine whether we have reached the trigger thresholds and take an average across the relevant zone.

Lakes Zone	
Hawea Flat	Queenstown Aero
Wanaka AWS	Queenstown AWS

We will consider the forecast for this/these location(s) when declaring or revoking a fire season.

### Lakes Zone Map



## Alpine Zone

### Geography

The Alpine Zone comprises the western half of the Queenstown Lakes District. It is mountainous region that includes the eastern flanks and foothills of the Southern Alps. Tectonic uplift, glacial and fluvial erosion have contributed to the very steep topography of the area.

### Climate/weather

The Alpine Zone experiences significantly higher rainfall than the neighbouring Lakes Zone.

Frost curing during the winter also increases fire risk by drying out light fuels

Weather patterns appear to be less predictable in recent years. This makes planning for fires much more difficult and riskier. Large pastoral burns in particular may be impacted. An example is where a snow line may be required before starting a prescribed burn. Traditional snow lines and snow cover duration are changing with our changing climate.

### Land cover / land use

Much of Alpine Zone is National Park or other public conservation land, protecting widespread indigenous forest at almost 18 percent of total land cover, with tussock grassland accounting for 40 percent.

Wilding conifers have colonised some significant areas that were formerly grassland or shrubland.

### Industry

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Primary production, including horticulture and agriculture <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Use of fire for land management</li> <li>• Relevant operations affected</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Apiculture (beekeeping) <ul style="list-style-type: none"> <li>• Use of smoke</li> <li>• Use of fire to destroy infested hives</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• Impacted by restrictions on activities for suppliers</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules</li> <li>• Access to locations may be restricted</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Lifeline utilities/other infrastructure**

Lifeline utility/ other infrastructure	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Electricity transmission lines <ul style="list-style-type: none"> <li>Sparking during high winds</li> <li>Use of auto-reclosers limited in high fire danger</li> <li>Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Railway line <ul style="list-style-type: none"> <li>Sparks from passing trains and during track maintenance</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Queenstown Lakes District Council Three Waters <ul style="list-style-type: none"> <li>Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roading network <ul style="list-style-type: none"> <li>Sparks or heat from moving or parked vehicles</li> <li>Spark causing activities during road maintenance and mowing</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural gas distribution network <ul style="list-style-type: none"> <li>Gas leaks</li> <li>Protected by own controls on use of fire and other activities in vicinity</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Telecommunications network <ul style="list-style-type: none"> <li>Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Recreational locations**

The Alpine Zone receives large numbers of visitors throughout the year, as it is home to several Great Walks and other major tramping tracks.

Tourism operators and recreationalists rely on the local landscapes for their activities.

The late summer months present the highest fire risk, although it is generally lower than that of Lakes Zone.

**Cultural and recreational activities and events**

Many customary and contemporary Māori activities involve the use of fire. Fire and Emergency must consider the impact of decisions upon Māori when exercising fire control powers. The relevant iwi and rūnanga for this zone are therefore listed as stakeholders.

Restrictions or prohibitions of fire or activities must be reasonable and proportionate to fire risk conditions, so as to avoid unreasonable impact on people living and enjoying recreational activities in this zone.



Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>Use may be prohibited during periods of elevated fire danger</li> <li>Pyrotechnics managed by other approvals</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hunting <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain biking, horse riding, back country running <ul style="list-style-type: none"> <li>Access may be restricted during periods of elevated fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Camping and tramping <ul style="list-style-type: none"> <li>Campfires and other fire types</li> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Special risk zone	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pig Island / Mātau and Pigeon Island / Wāwāhi Waka <ul style="list-style-type: none"> <li>Ecological values at risk</li> <li>In own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Special risk zones

Due to the values at risk, public conservation lands are kept in a restricted fire season all year round. When the surrounding zone goes to a prohibited fire season, the public conservation land is included in the prohibited status. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

Due to the values at risk, the other special risk zones listed are kept in a prohibited fire season all year round.

**Known fire hazards** There are no long-term fire hazards listed in this zone in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger** There is not yet enough data available to provide an accurate annual average number of days of elevated fire danger for this zone; however the fire danger is almost certainly much lower than in the neighbouring Lakes Zone due to geographic and climatic characteristics of the zone.

**Fire history** The known fire history for this zone for wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
2022	Mt Creighton	Escaped fire for land management

**Predominant fuel type** Predominantly grass and forestry with some shrubland.

## Thresholds

**Fire seasons** For setting fire seasons, Build-up Index (BUI) is the most relevant fire weather index to monitor for where forest is the predominant fuel type.

Build-up Index (BUI) and the degree of grass curing (GC%) are the most relevant fire weather indices to monitor where there is a mixture of forestry and grasslands as the predominant fuel types.

We will use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in this zone. We may also consider other [fire risk conditions](#).

Grass curing (%)	Build-up Index (BUI)		
	0-40	40-60	>60
0-50	Open	Open	Prohibited
50-70	Open	Restricted	Prohibited
>70	Restricted	Prohibited	Prohibited

### Interpreting this matrix:

Open	Open fire season
Open/Restricted	Open fire season but we may move to a restricted season earlier if forecast conditions support this.
Restricted	Restricted fire season
Restricted/prohibited	Restricted fire season, but we may move to a prohibited season earlier if forecast conditions support this or stay in a prohibited season longer if grasses remain dry and cured.
Prohibited	Prohibited fire season

**Prohibition on fires in open air (section 52)** We can use the same Fire Weather System trigger thresholds for prohibiting fires in the open air under section 52 as we do for changing to a prohibited fire season

but use section 52 when the fire risk conditions are not expected to last long enough to justify changing to a prohibited fire season.

Other local thresholds have not been set.

### Prohibitions or restrictions on activities (section 52)

Localised trigger thresholds for applying section 52 to activities have not yet been developed. However there are some local mitigations used to reduce the need to implement it.

#### Tourist activities and holidaymakers

During holiday periods, the Alpine Zone experiences an influx of transient population visiting these areas, so it is important that these visitors are aware of the fire risk and safe behaviours they should adopt.

National campaigns provide awareness in various media forms. DOC also provides information around safe use of fire on their lands. Signage on roadsides and campgrounds also provide information

#### Forestry operations

Fire and Emergency continues to work with its stakeholder organisations. We will continue working with forest companies and their contractors to keep them informed of the fire danger rating so they can make an informed decision on forestry activities during high fire danger.

Fire and Emergency has forestry services agreements with the following major stakeholders.

These agreements contain information about the forest land, firefighting resources, and other essential operational details.

- Wenita Forest Products
- City Forest Ltd
- Port Blakely Ltd
- Ernslaw One Ltd
- Calder Stewart Ltd

[Forest fire risk management guidelines](#) contain advice on mitigating the risks.

#### Roadside mowing

Fire and Emergency will work with local councils and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to carry out roadside mowing during heightened fire danger.

[www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws](http://www.checkitsalright.nz/reduce-your-risk/mowers-chainsaws)

#### Powerline auto-reclosures

Fire and Emergency will work with power companies and their contractors to keep them informed of any fire danger and spike days across the Otago District so they can make an informed decision not to automatically re-energise their lines if a fault occurs.

### Representative remote automated weather stations

We use Remote Automated Weather Station (RAWS) to determine whether we have reached the trigger thresholds and take an average across the relevant zone.

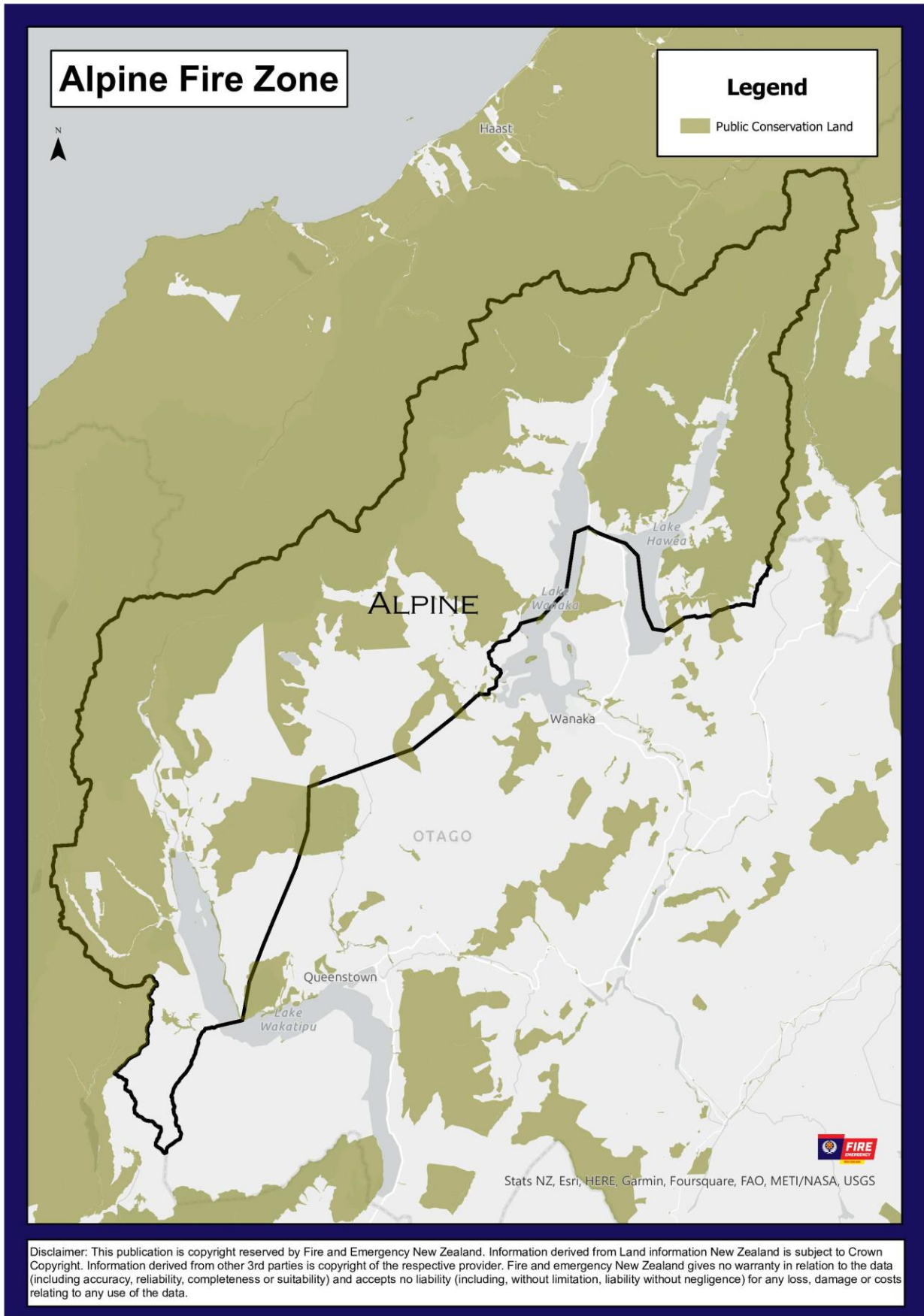
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Alpine Zone	
Mt Larkins	Glenorchy (mobile)

We will consider the forecast for this/these location(s) when declaring or revoking a fire season.

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### Alpine Zone Map



## Otago special risk zones

### Prohibited fire zones

**Special risk zones** Due to the high values at risk and practically year-round fire risk conditions present, Otago District has declared prohibited fire season in the following special risk zones (SRZs). Fire controls in these areas remain in force even when the surrounding zone returns to 'open' fire season:

- Mount Iron SRZ
- Queenstown SRZ
- Albert Town Recreation Reserve SRZ
- Shag Point SRZ
- Bucklands Crossing SRZ
- Ruby Island SRZ
- Stevensons Island SRZ
- Mou Waho SRZ
- Mou Tapu SRZ
- Pig Island / Mātau SRZ
- Pigeon Island / Wāwāhi Waka SRZ
- Lake Ōhau village and lakeshore SRZ

Except for the islands, all the above zones are subject to several interacting fire risks; including human factors, concentrations of threatened values (including life and property, amenity values and ecological values), high available fuel loading, topography, fire weather and other fire risk conditions that exist at any time of year.

Ruby Island, Stevensons Island, Mou Waho, Mou Tapu, Pig and Pigeon Islands are high-value conservation areas. Significant preservation investment has been undertaken, including the introduction of rare birdlife. High visitor numbers over the summer months, obvious difficulties in mounting an effective response, and a history of fires caused by visitors, all support the necessity for year-round fire controls.

Mount Iron and Albert Town recreation reserve are largely covered in volatile scrub fuels growing in poor stony soils on slopes that are frequently exposed to north-westerly winds. Set amongst the fuel are popular walking and mountain-biking tracks, homes and campsites. Access is limited and would quickly become congested in a wildfire, meaning lives and property could be lost before an effective response could be mounted.

Bucklands Crossing is a remote campsite with a history of fires lit by campers. Access and egress are problematic, severely compromising our ability to mount an effective response before threatened values are lost.

Ōhau Village was decimated by wildfire in October 2020. Due to free-draining soils, strong dry winds, hot summers and freezing winters, grass and scrub fuels are usually available to burn and fire can start and spread at any time of year. Values threatened by wildfire include non-contiguous parcels of public conservation land, private land under QEII National Trust covenant, the users and environment on the

Alps 2 Ocean Cycleway and Te Araroa trail, Round Bush Reserve and of course the people and newly rebuilt properties within and around Ōhau village.

Queenstown special risk zone covers the hills immediately north of Queenstown suburbs, and in some cases (where the risk warrants it) includes the interface between the built and natural environments. The zone features considerable residential and commercial buildings, recreation and tourism activities set amongst highly combustible and contiguous ground fuel cover upon generally very steep slopes. For example, fire scientists predict that in the right conditions a fire originating at the bottom of the hill near the base gondola complex may reach the top complex within thirty minutes. Coupled with this, several communities within the zone have limited road access, with narrow, no exit or single exit roads leading to multiple communities. Many parts of the zone also have limited water resources for fire suppression. Any large wildfire within this zone could necessitate a complex and difficult evacuation and response that would foreseeably become an international incident with severe and long-term impacts.

Given the vulnerability of all of these zones and the exceptional fire risk conditions within them, fireworks are also prohibited, pursuant to section 52 of the Act.

### Climate/weather

While these locations are similar in climate to the lakes and coastal zones where they are located, many have micro-climatic weather. All have topographical features (slope and aspect) and fuel loading that increase the likelihood of fire starting and spreading, the potential intensity of fire behaviour and the rate of fire spread, beyond the general risk of the surrounding zones.

### Land cover/ land use

All the prohibited zones have very high available fuel loads.

- The islands are almost exclusively native or regenerating forest.
- The Queenstown zone is predominantly covered in wilding conifers.
- Mount Iron – urban interface area covered by kānuka scrub.
- Shag Point is a mixture of native and introduced forest and scrub.
- Buckland crossing is a campground area surrounded by kānuka and mānuka and gorse scrub, with pine forest next to the campsite.

Fires in these areas in moderate or higher fire conditions will be very intense and will threaten lives, properties and environmental values.

### Industry

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Forestry <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Own zone to apply separate controls</li> </ul>	☒	☒	☒
Tourism <ul style="list-style-type: none"> <li>• Visitors contribute to fire risk, and also are at risk from fire</li> <li>• Tourism activities are impacted by fires and fire control</li> </ul>	☒	☒	☒

**Lifeline utilities/other infrastructure**

Lifeline utility/ other infrastructure	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Electricity transmission lines <ul style="list-style-type: none"> <li>Sparking during high winds</li> <li>Use of auto-reclosers limited in periods of elevated fire danger</li> <li>Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Recreational locations**

Walking tracks, mountain bike areas within the Queenstown SRZ or Island SRZs may be closed during very extreme fire weather conditions.

**Cultural and recreational activities and events**

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Public access walking and mountain bike tracks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Known fire hazards**

There are no long-term fire hazards in this zone listed in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger**

See the relevant zone that each site is located in.

**Fire history**

The fire history in the Prohibited SRZ zones (excluding structure fires and other property fires) includes:

Year	Fire	Cause
2000	Pigeon Island Fire	Camp fire
2005	Closeburn Fire	Fireworks
2012	Mount Iron	Powerlines
1998	Buckland's Crossing	Camp fire

**Thresholds****Prohibited seasons year-round**

There is a 365-day prohibited fire season, and the use of fireworks is also prohibited. See the [criteria for these in the Area overview](#).

**Representative Remote Automated Weather Stations**

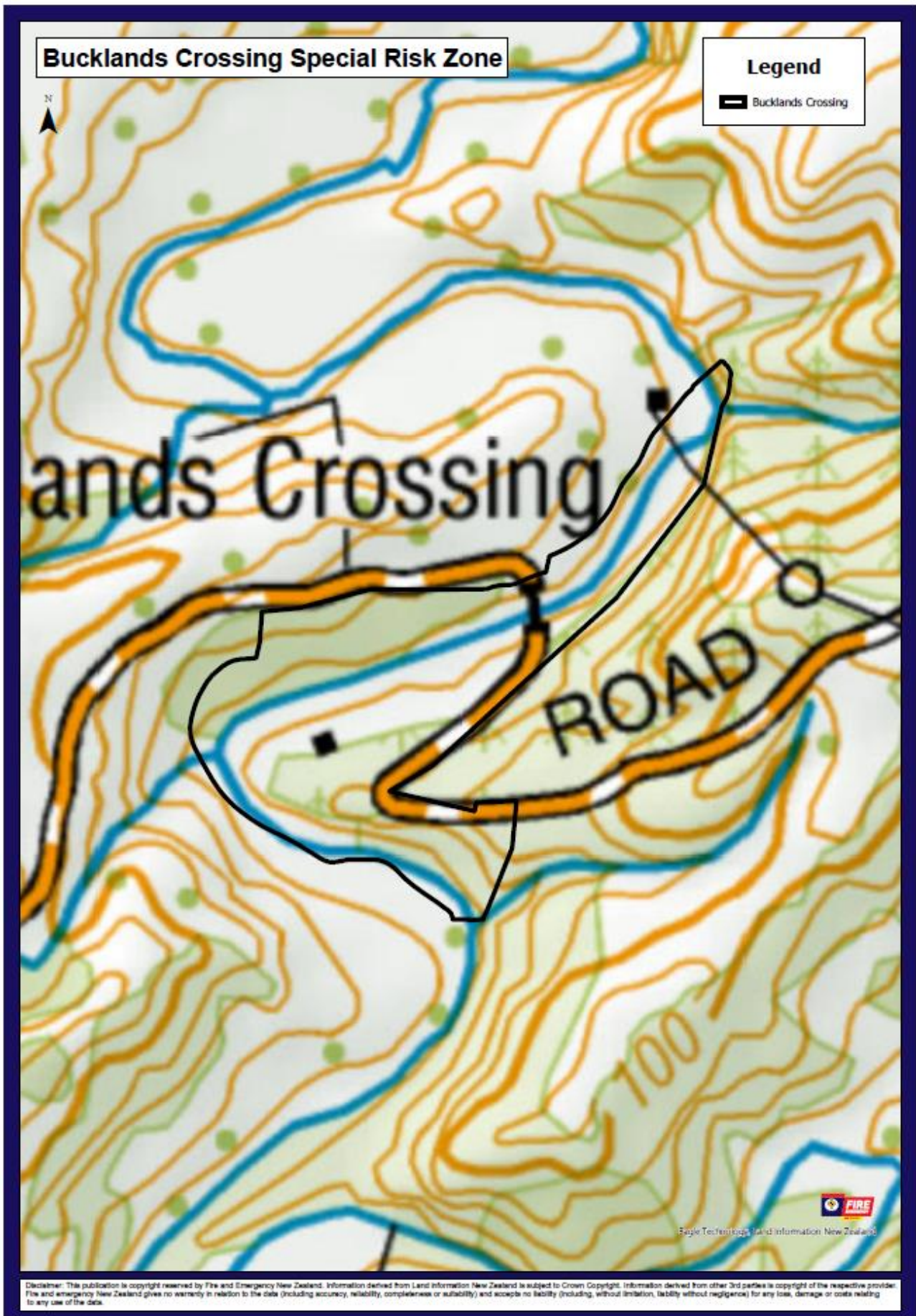
We use Remote Automated Weather Stations (RAWS) to determine whether we have reached the trigger thresholds set out in the fire plan. We monitor these sites and take average daily indices (readings) across the relevant zones:

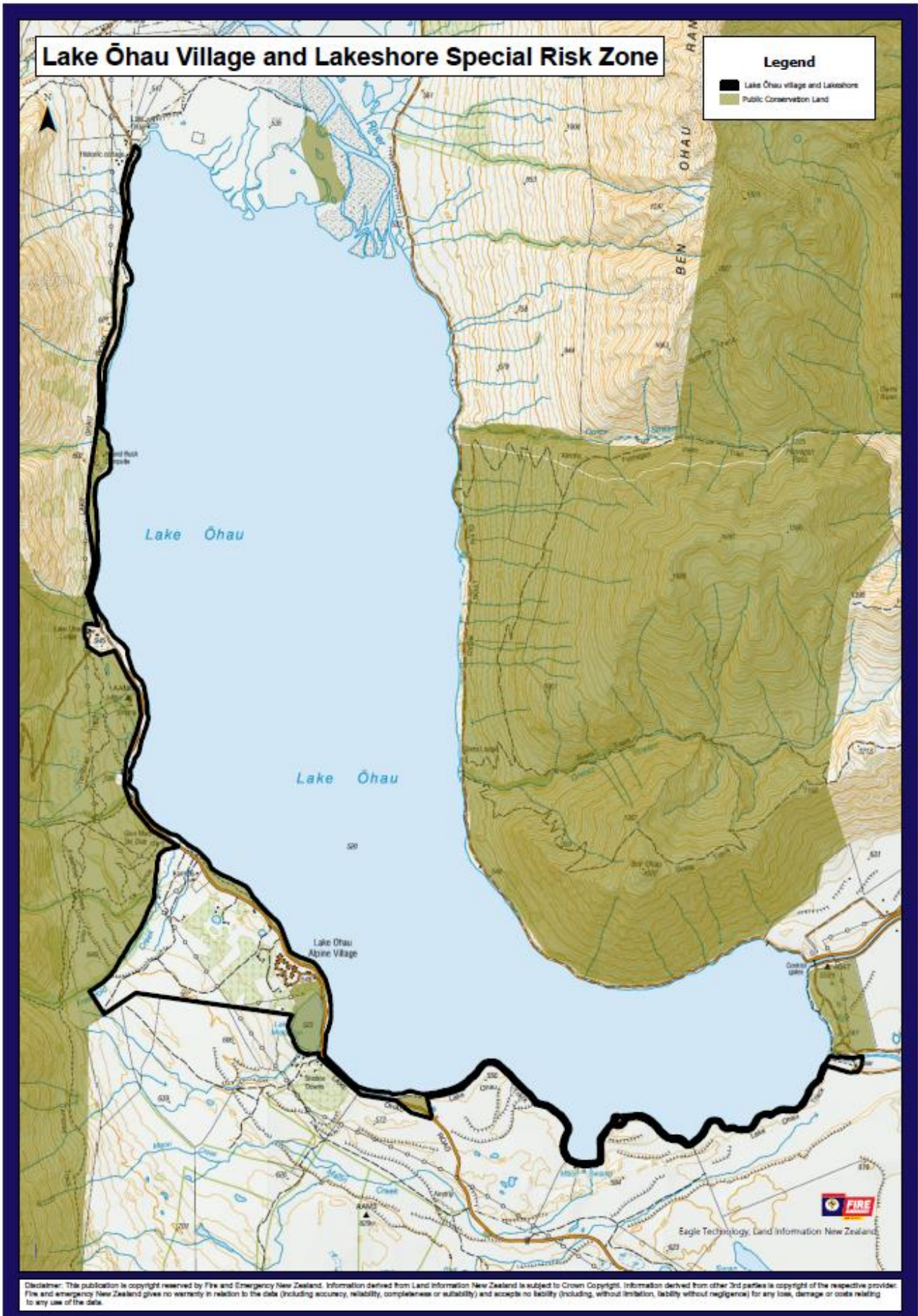
Refer to the relevant zone that each SRZ is located in.

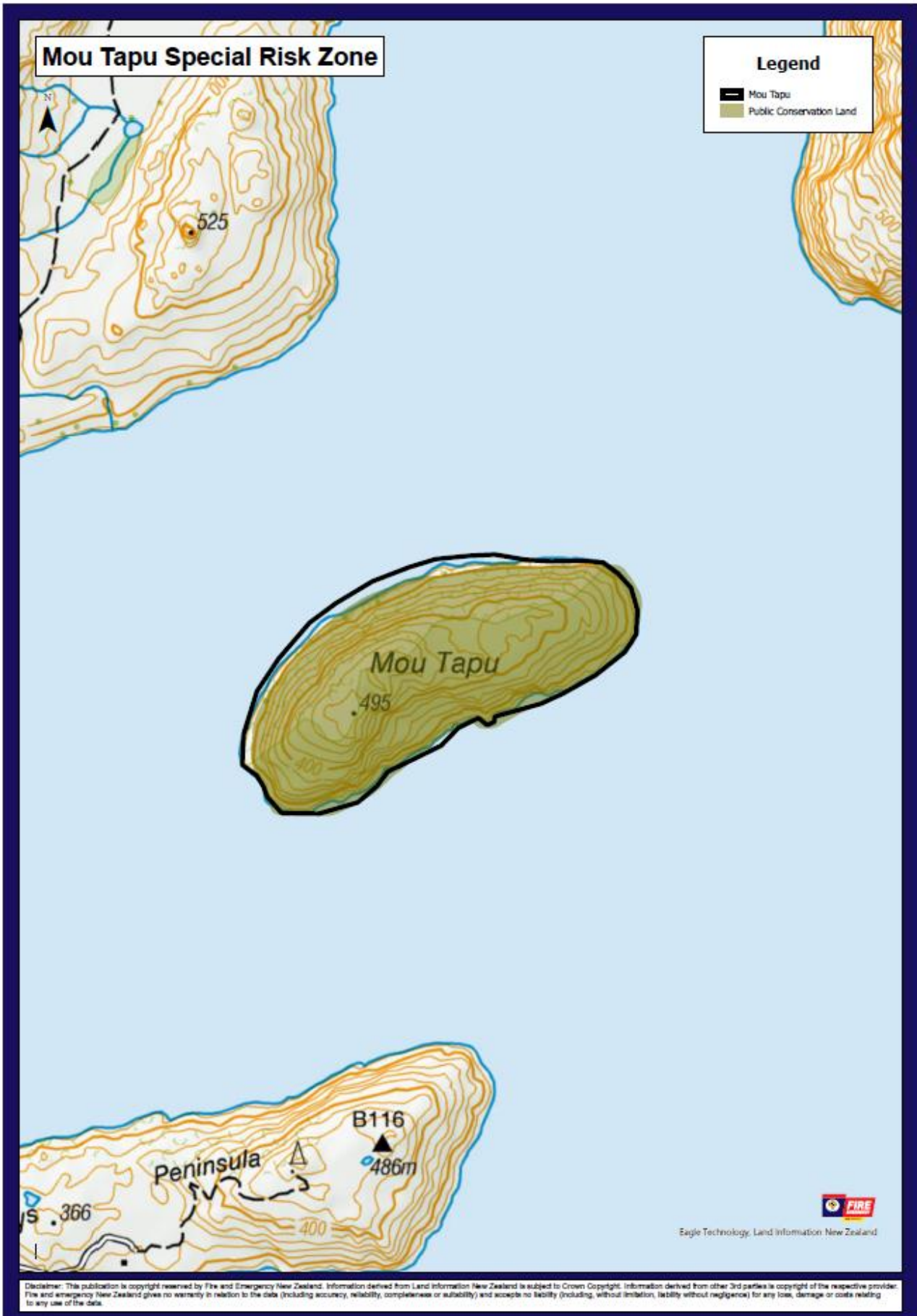


Otago prohibited SRZ maps

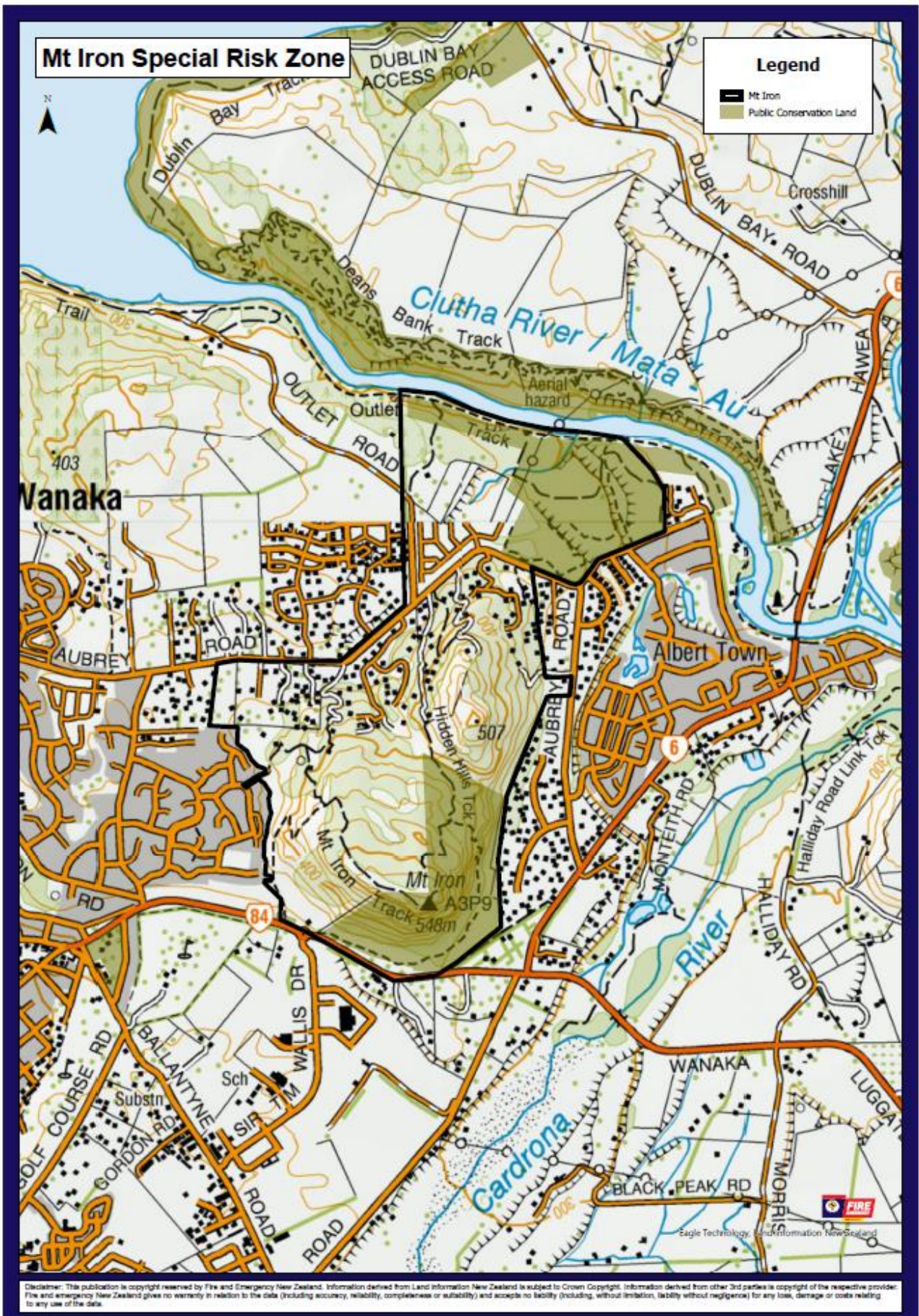








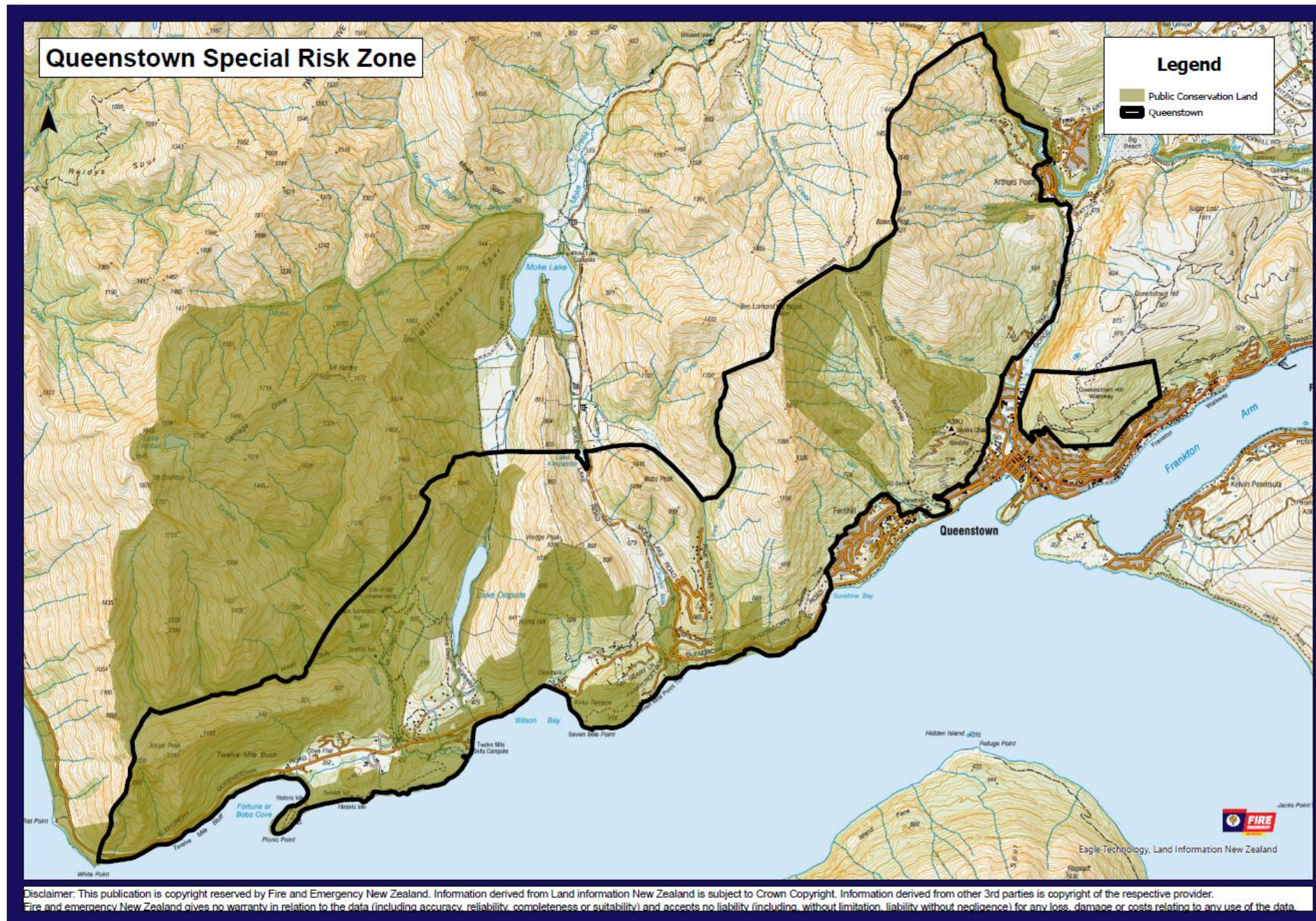
















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## Restricted fire zones

**Special risk zones** Due to the high values at risk and practically year-round fire risk conditions present, Otago District has declared restricted fire season in the following special risk zones.

When a prohibited season is declared in the surrounding zone, these areas will be included in the prohibited fire season declaration. When the surrounding zone return to 'open' fire season, these areas will remain in a restricted fire season.

- Mopanui
- Naseby
- Glendhu Bluffs
- Waipori Falls
- Dunedin City skyline: Flagstaff - Silverpeaks and Mount Cargill – Mihiwaka
- Pīpikāretu

**Climate/weather** See the relevant zone that each SRZ is located in.

**Land cover/land use** Commercial plantation forests (exotic species), forests (mainly native species), pasture, wilding conifers, and tussock and volatile scrub.

### Industry

Industry	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Forestry	☒	☒	☒
Agriculture	☒	☒	☒
Tourism	☒	☒	☒

Due to the nature of the activities carried out by the forestry companies (e.g. logging operation, general use of heavy machinery, fire as land management tool) the risk of an unwanted fire is elevated in the zones.

### Lifeline utilities/other infrastructure

Lifeline utility/ other infrastructure	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in periods of elevated fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	☒	☒	☒
Transport infrastructure <ul style="list-style-type: none"> <li>• Transport-generated fires</li> <li>• Critical routes</li> <li>• Construction and maintenance activities</li> </ul>	☒	☒	☒

**Recreational locations** Planned public events may be impacted by fire season status (e.g., trail bike rides, rally events, etc).

Hunting/access permits may be cancelled during extreme fire danger.

**Cultural and recreational activities and events**

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Public access walking and mountain bike tracks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Known fire hazards** There are no long-term fire hazards in this zone listed in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger** See the relevant zone that each site is located in.

**Fire history**

The known fire history in the restricted SRZ zones includes:

Year	Fire	Cause
2010	Mount Allan, 800 ha	Forestry operations – chainsaw
2012	Berwick forest, 30 ha	Powerlines
2018	Glendhu Bluffs	Camp cooker
2022	Glendhu Bluffs	Accidental

**Thresholds**

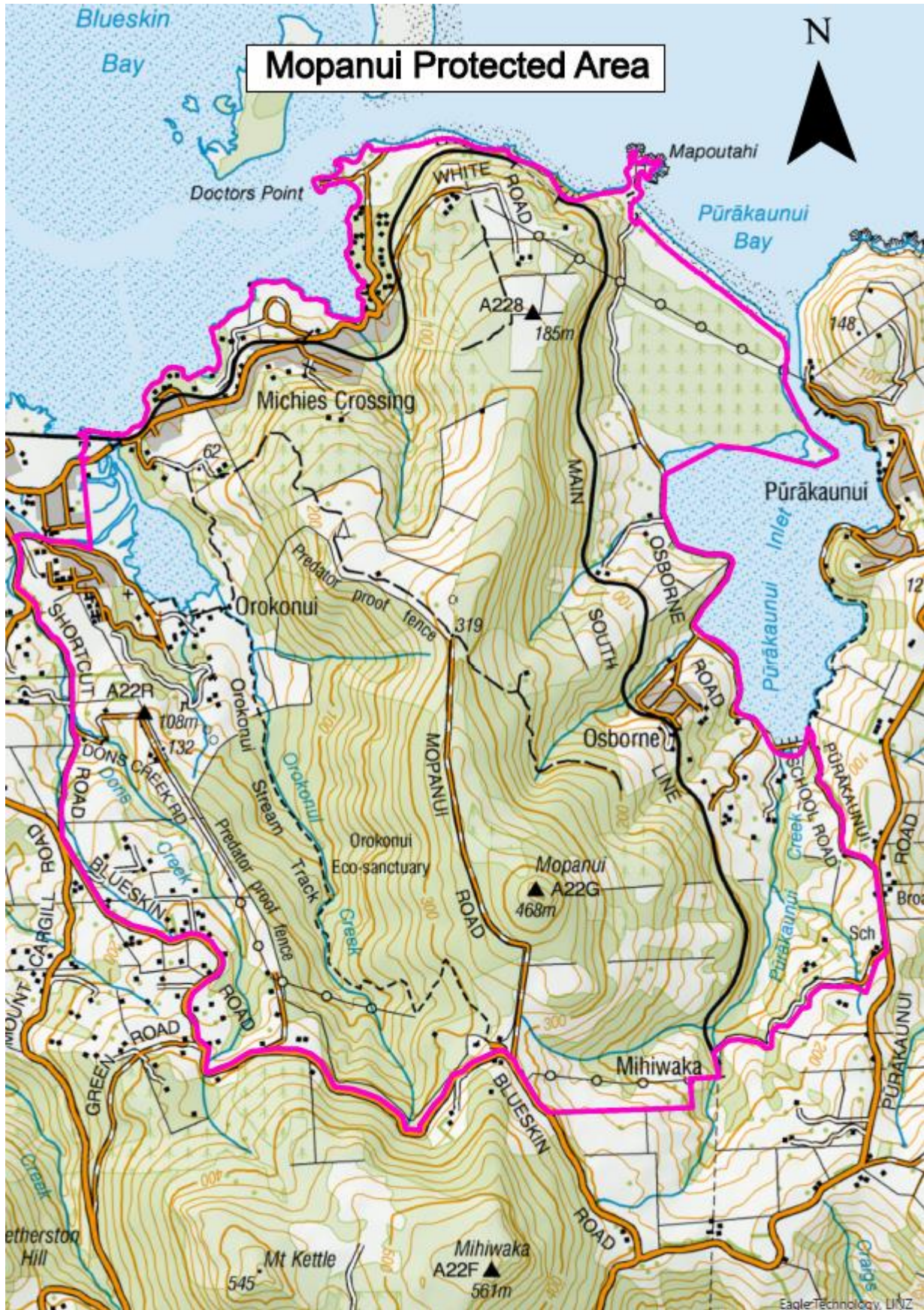
**Restricted seasons year-round**

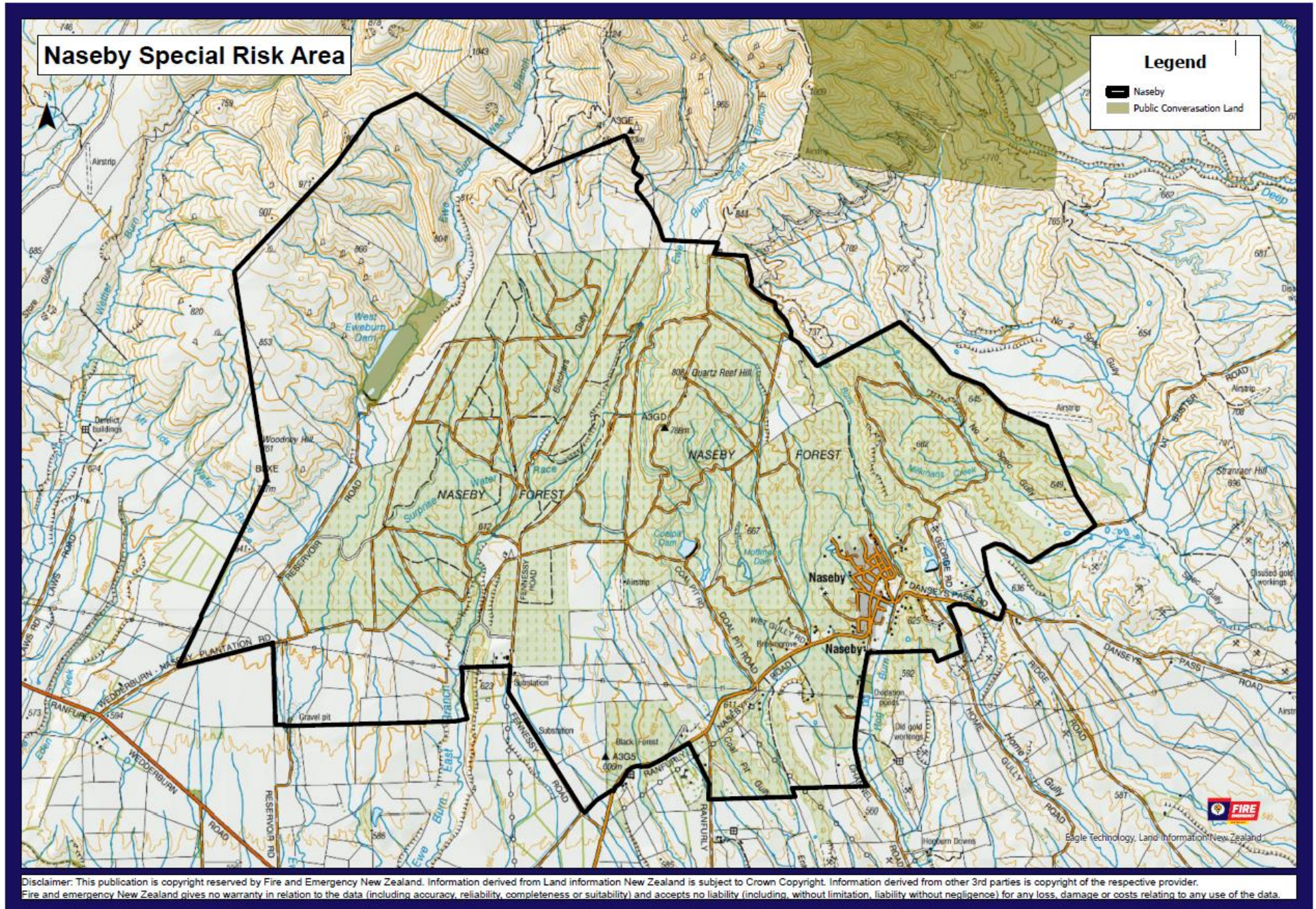
Due to the values threatened by significantly higher fire risk conditions, a restricted fire season remains in force in these special risk zones, 365 days a year (when they are not in a prohibited fire season). If the surrounding zone goes to an open fire season, these special risk zones will remain in a restricted fire season. If we declare a prohibited fire season in the zone surrounding a restricted special risk zone, the special risk zone will also be included in that declaration.

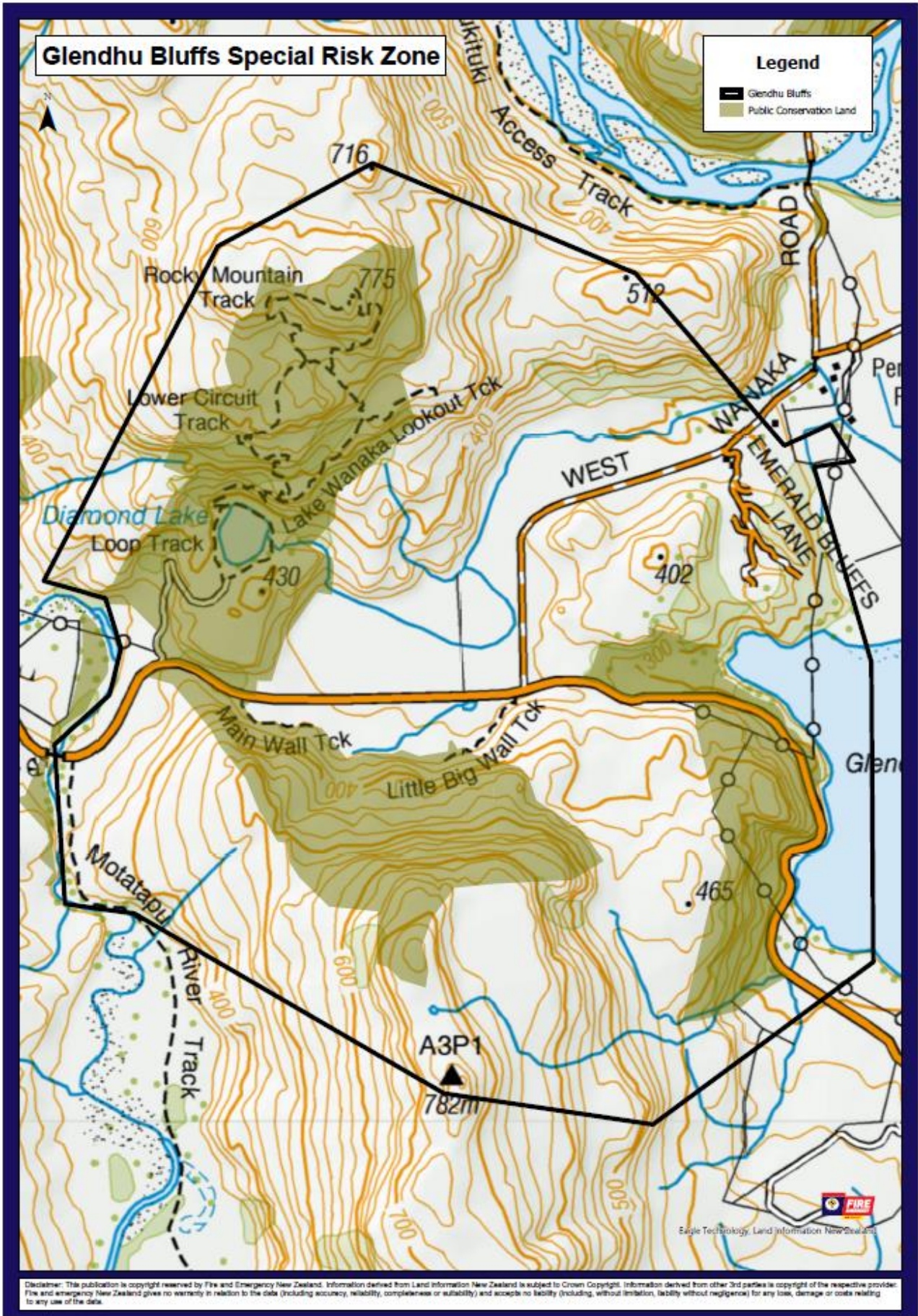
We may use the following fire weather triggers to inform our decisions to declare or revoke fire seasons in these special risk zones. We may also consider other [fire risk conditions](#).

Grass curing (%)	Build-up Index (BUI)		
	0–40	40–60	> 60
0–50	Restricted	Restricted	Prohibited
50–70	Restricted	Restricted	Prohibited
>70	Restricted	Prohibited	Prohibited

Otago restricted SRZ maps

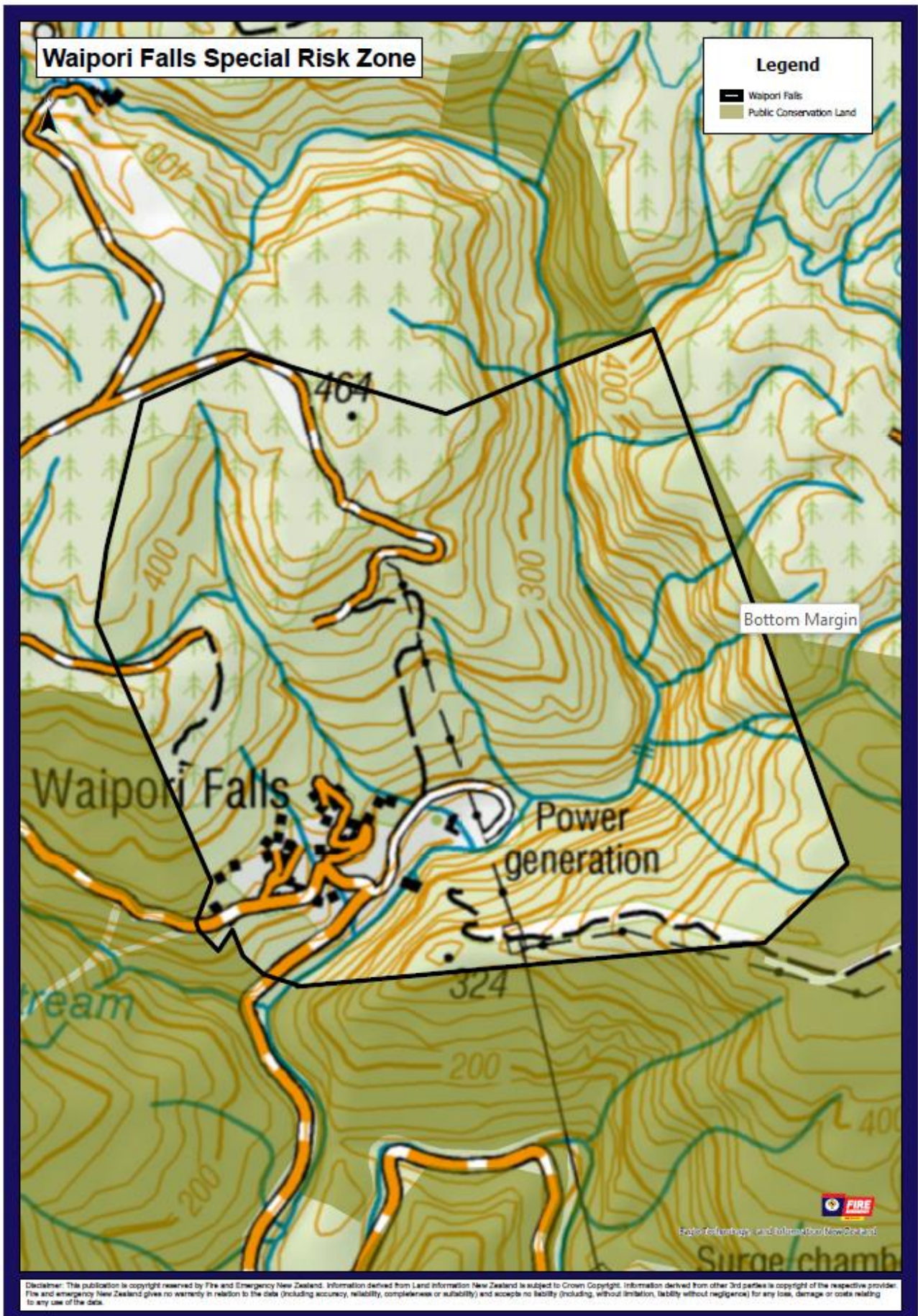






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## Public conservation land

### Geography

Includes the conservation areas, reserves, marginal strips and National Parks managed by the Department of Conservation within the Otago local area.

A defining characteristic of Otago is the diversity of the natural environment, ranging from truly alpine environments to block mountain, tussock grassland, and rocky dryland landscapes, and the indigenous bush-covered coastal hills of the Catlins.

Extensive, intact snow-tussock grasslands and tundra-like vegetation are found on the broad block mountains of Central Otago.

### Climate/weather

Please refer to the climate and weather information in the relevant fire zone section.

### Land cover

Please refer to the land cover information in the relevant fire zone section.

### Special risk zones

Special risk zone	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures
All public conservation land	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Known fire hazards

No known long-term fire hazards have been identified on PCL.

### Fire history

The known significant fire history in public conservation lands zone includes:

Year	Fire	Cause
2005	Closeburn, 150 ha	Fireworks
2006	Remarkables, 600 ha	Escaped prescribed burn
2019	Old Dunstan Road (Te Papanui) – 5,400 ha	Suspicious
2020	Hyde–Middlemarch	Camp cooker
2020	Lake Ohau, 5,000 ha	Powerlines
2020	Waipori Falls	Powerlines

## Thresholds

### Restricted seasons year-round

Due to the values at risk, public conservation lands are kept in a restricted fire season when they are not in a prohibited fire season. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

Thresholds for declaring or revoking a prohibited fire season are the same as the thresholds for the fire zone surrounding parcels of public conservation land.

## Public conservation land maps

Mapping of public conservation lands (PCL) is done at the Zone level, see individual zone maps for the location of any PCL.