

# Fire Plan for Otago, Te Kei 2021-2024



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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 Region Manager, Te Kei.

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## Document information

Owner	Region Manager, Te Kei
Steward	Principal Rural Fire Officer and Business Services Coordinator, Otago District
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## Record of amendments

Version	Date	Brief description of amendment
V 1.0	28 April 2021	Issued for public consultation
V 2.0	30 July 2021	Public consultation feedback incorporated and published. Plan approved for use.

## Approval

Full Name: Mike Grant

Title: Region Manager

Date: 27 July 2021



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Signature

## Introduction

### How to use this document

The front sections of this document contain information about fire plans in general, and the basics of Fire and Emergency New Zealand's fire control powers and how we use them to reduce the risk of unwanted fires, particularly around fires in the open air.

The back portion of this document contains the locally specific information relevant to this fire plan area, as these 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](#) 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, or to prohibit fires and even restrict activities that may cause unwanted fires, and how we apply our other powers to manage fire hazards or require firebreaks. This helps 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

Fire plans 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, and the fire plan can be broken down into specific zones within the area where fire risk conditions or control measures differ.
- set out the policy for fire control in the local area. This sets out when and why we restrict or prohibit fires in the outdoors, or restrict activities that may cause unwanted fires, and manage fire hazards or require firebreaks
- set out the procedures to be followed for fire control in the local area, including details of the processes that Fire and Emergency will follow, and the 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.

A fire plan must be consistent with:

- Fire and Emergency’s national strategy
- any local planning by Fire and Emergency in respect of 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.

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.

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 the context of these fire plans, local area is the area within each Local Advisory Committee’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 local advisory committee in respect of the local area are set.

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

### Zones

Zones within an area can be based on climatic conditions, geographical features or land use based on previous work on analysing the wildfire threat, or territorial authority, to enable fire seasons to be applied to the zone in a way that makes sense from a fire science point of view, and our ability to communicate where the boundaries are with the public.

## Consultation

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

- publish a notice that:
  - gives an overview of the content of the proposed plan
  - states where you can see and read a copy of the plan
  - specifies how you can make a submission on the plan and where to send your submissions
  - specifies the closing date and time for submissions
- consider every submission received by the closing date and time for submissions.

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

### Key stakeholders

A list of key stakeholders involved in the creation of the plan, those who should contribute to its maintenance and relevant decision making is included as the stakeholder schedules in the local area and zone information in this plan.



## **Review and amendment**

Fire and Emergency may amend a fire plan at any time, but 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 confirm that the fire plan remains appropriate for that area; or amend the fire plan as necessary, and consult on changes.

This is the first time that fire plans of this nature have been developed under the new legislation. These plans may be reviewed and amended sooner than the 3 year time limit to ensure we can continue working with stakeholders to improve the plans.

## 4 Rs of emergency management

New Zealand's approach to emergency management can be described by the four areas of activity, known as the '4 Rs' – reduction, readiness, response and recovery.

Fire plans are a part of our work in the Reduction space. Previous fire plans under the old rural fire authorities also had components of Readiness and Response, and that information is now incorporated into other planning work and operational procedures.

Have a look at the range of work that Fire and Emergency does in each of the 4 Rs.



### Reduction

Identifying and analysing long-term risks to human life and property; taking steps to eliminate these risks if practicable, and, 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, which includes these fire plans, and our fire control powers for reducing the likelihood of unwanted fire from the use of fire in the open air, and other causes of wildfire through 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

Developing operational systems and capabilities before an emergency occurs, including 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
- work with local government around provision of water for firefighting

## Response

Attending incidents and taking immediate action before, during or directly after an incident to protect and preserve life, prevent or limit injury, reduce damage to land or property, protect the environment and help people begin recovery.

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.

## Recovery

Helping people who have suffered loss and trauma to receive the appropriate support. 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:

- 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
- ensuring 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 community pre-planning for major events and 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 work 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, or for cooking, comfort and warmth.

The National Framework for Fire Control consists of policies, procedures and tools that enable Fire and Emergency to manage fires – supporting people to safely use fire where appropriate and restricting or prohibiting its use when there is a risk of unwanted fire.

The public face of this is the [Checkitsalright.nz](https://www.checkitsalright.nz) website, the [fire permit application system](#), these fire plans, and additional information on our public website – [fireandemergency.nz](https://www.fireandemergency.nz).

Fire and Emergency has a number of statutory fire control powers that can be applied to help reduce risk, as follows:

- 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

The current internal policies and supporting processes that guide our decisions and actions are:

Policy	Detail
Fire seasons, prohibitions and restrictions policy	Relating to sections 52 to 58 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	Supporting the policy above and also defining 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>
Fire hazard removal policy	Relating to sections 65 to 67 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>
Compliance and enforcement policy	Covering 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>

**Note:** work is also under way to define policy and guidance for both internal and stakeholder audiences, covering:

Policy	Detail
Firebreaks	Relating to sections 62 to 64 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 risk conditions

The circumstances where we can use our fire control powers to prohibit fire and or restrict other activities are defined in the Act 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.

Fire risk conditions are defined in the Act 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.

Other conditions, considered to be fire risk conditions for the purposes of exercising our fire control powers, include:

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 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 provide an effective response	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>

Condition	Description
Impacts from natural disasters	Natural disasters 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 seasons are used to inform people about the requirements for or restrictions on lighting fires in the open air, and to manage the use of fire to protect communities from the consequences of unwanted fire.

Fire and Emergency can declare or revoke a prohibited or restricted fire season in an area, and uses its Fire seasons, prohibitions and restrictions policy and associated processes to manage this.

Fire seasons are applied to geographic zones based on:

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

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

### Open fire season



Fires may be lit in open air, without restriction. Applies whenever there is not a prohibited or restricted fire season in place.

### Restricted fire season



Lighting a fire is riskier than usual. A fire permit is required and may also have specific conditions to make sure fires can be safely lit and 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 stakeholders 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.

Note that this does not mean that you can light fires anywhere you want to. Department of Conservation, local council or regional council bylaws 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 land owner 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 clearing or burning crop stubble, so that we can share advice on how and when to conduct your fire safely.

## 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 means that we can understand where and when fire is being used, so that our fire brigades don't need to respond unnecessarily.

It also gives us an opportunity to give advice about how the fire can be conducted safely, or we can apply conditions around when the fire can be lit, how big it can be, or any other requirements that reduce the chance of the fire escaping control.

## Prohibited fire seasons

When the fire danger reaches higher levels, we need to stop people from lighting fires that may escape, as the 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 provide us with a consistent, scientific way to monitor the fire danger in an area.

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

The trigger thresholds make use of:

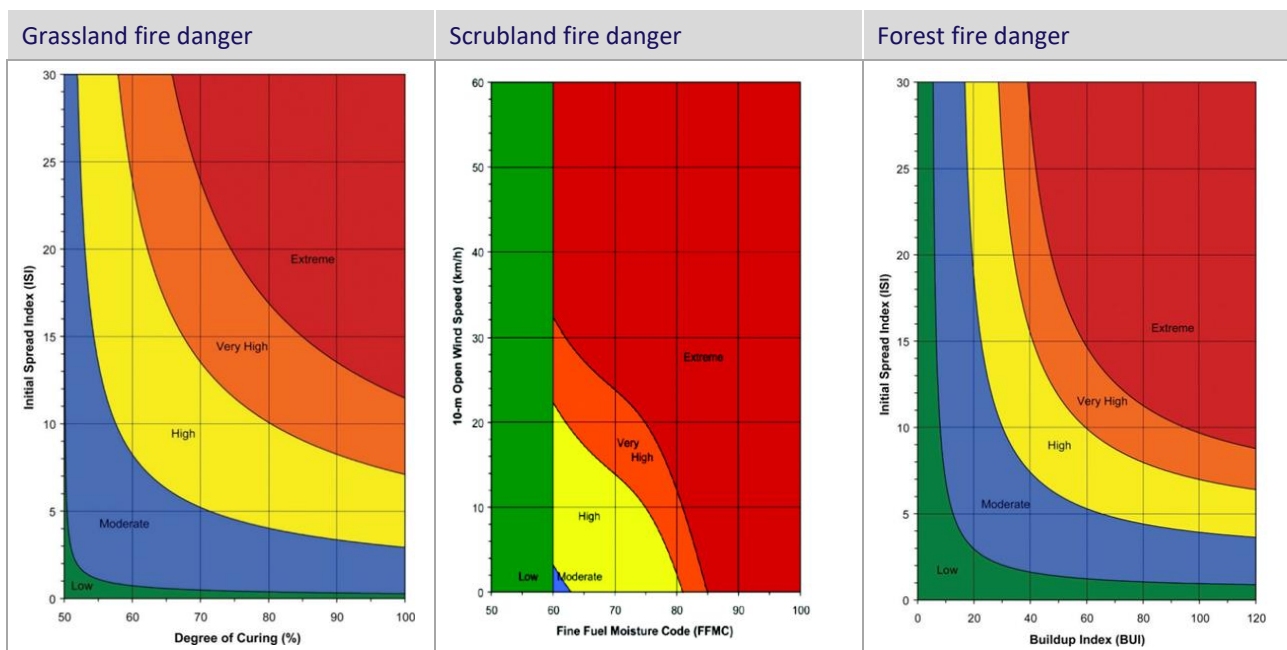
- the Remote Automatic Weather Station (RAWS) climatology data for the fire plan area or zone.
- historical fire data for the fire plan area or zone.

Other factors such as resource availability, other emergency events etc., may also feed into 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 and 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)

There are times when Fire and Emergency may need to prohibit fires in the open air, outside of the usual fire season changes. This control is used very rarely, in exceptional circumstances, for example when:

- large or multiple incidents occur that put firefighting resources under strain
- extreme fire weather conditions occur during a restricted fire season, e.g. strong dry winds, high temperatures associated with very low humidity
- emergency events occur, e.g. the 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 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 the Epidemic Preparedness (COVID-19) Notice 2020 is in force, without needing to consider fire risk conditions or other factors. This might happen if our response capabilities are affected by COVID, 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](#).

If someone breaches the ban, they can be charged under [section 54](#) of the Fire and Emergency New Zealand Act 2017.

## 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. Examples of these activities include but are not limited to:

- roadside mowing
- cutting or welding operations outdoors that involve the use of portable gas, disc grinder or arc welding equipment that produces sparks, flames or heat, generally known as ‘hot works’
- chainsaw thinning to waste/tree felling
- mowing, ploughing or harrowing fields
- use of fireworks and flying lanterns
- firing tracer bullets.

[Section 52](#) of the Act allows us to prohibit or restrict one or more activities in an area or areas, when our assessment is 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,
- there is an inability to adequately mitigate the assessed risk.

Prohibition or restriction means:

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:

- for the supply and distribution of food, water, fuel, power, and other necessities
- for the maintenance of transport and communication facilities that are essential to the well-being of the community
- for the maintenance of the health of the community
- for the maintenance of law and order, public safety, and the defence of New Zealand
- for the preservation of 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, when 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, then we will use [section 52](#) to apply the restrictions or prohibitions to everyone within the zone.

Our policy for fire seasons, prohibitions and restrictions says that we only prohibit or restrict activities if we have engaged with stakeholders and they are unable to satisfactorily mitigate the identified risks.

Legally restricting or prohibiting activities can have a significant economic impact, so should not be done without due consideration.

If Fire and Emergency has come to an agreement with stakeholders on set thresholds for when to implement a [section 52](#) restriction or prohibition of activities, these will be included 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 trigger point tables and what fire prevention actions are required during different fire danger levels. These guidelines are supported by Fire and Emergency.

If local trigger values have been set, they will be listed in the zone information in this document. NIWA's website will be updated to display the levels decided locally.

### Powerline auto-reclosers

Most power companies use a computer-controlled auto recloser system which attempts to reconnect the power up to three times following a fault before a technician needs to be sent. If the fault was the result of a downed wire(s), 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 website will be updated to display the levels decided locally.

Power companies also make use of other reduction activities, following the [Electricity \(Hazards from Trees\) Regulations 2003](#), such as trimming trees around power lines, providing fault reporting to public, undergrounding power lines, and providing tree planting guidance.

### Hot works

This includes activities such as welding, grinding, chain sawing, metal cutting, mowing and railway track maintenance.

If local trigger values have been set, they will be listed in the zone information in this document. NIWA's website 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 Federated Farmers through the Land Management Forums to discuss the approach to fire measures, the use of machinery and equipment during high fire danger periods and the potential effect on local landholders.

## Fireworks

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

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

Council bylaws may limit where and when fireworks may be used.

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

This prohibition does not include pyrotechnics displays as these are permitted activities that are assessed by risk management staff as part of their application for approval of the pyrotechnics display.

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, and provides advice to the public to promote the safe use of fireworks. We recommend people attend publicly organised displays where possible.

## 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, so they need to know what the current fire season is in the area, whether any other prohibition applies, and whether a permit is required.

Fire season changes, and restrictions and prohibitions under [section 52](#) of the Act, are publicly notified to our communities, stakeholders and partners in a number of ways.

Modes of communication can include, but are not limited to:

- 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
- Check It's Alright website [www.checkitsalright.nz](http://www.checkitsalright.nz) or information available by phoning 04 496 3600
- Fire danger or fire season signs – these are changed to reflect season status with additions of “Fire by permit only” or “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 to build awareness of the dangers of wildfires and promote positive behaviour changes.

Messaging using traditional and digital media, such as social media and on-demand video can be targeted at affected areas at effective times.

When a fire season change affects public conservation land (PCL), we must also notify the Department of Conservation (DOC) of any intention 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 current local fire risk conditions.

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.

Fire permits may also be suspended or cancelled in certain circumstances, such as: where fire risk conditions change, for fire control purposes, or as fire seasons change/prohibitions are imposed.

No liability is imposed on Fire and Emergency because of the granting of a fire permit, under [section 190\(8\)](#) of the Act.

## Council bylaws, 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 when issuing permits, so even if Fire and Emergency has issued a fire permit, you may not be allowed to light your fire due to other requirements.

Even if a fire permit is not required from us, due to an open fire season etc., you may not be able to light fires in some places.

Council bylaws and regional plan rules relating to smoke and air pollution must also be followed.

Managing smoke nuisance comes under local government jurisdiction and not Fire and Emergency, 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:

- type of fire
- the 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

Authorised fire types in a restricted fire season, i.e. those fire types not requiring a fire permit because they are not considered ‘fires in open air’ are listed below:

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="#">barbeques and gas cylinders</a> and <a href="#">outdoor gas-operated appliances</a>.</p>
Charcoal barbeques or grills	<p>Barbeques or grills that use either charcoal briquettes or natural lump charcoal as their fuel source.</p> <p>Condition:</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> </ul> <p><i>If you cannot meet this condition, you must apply for a permit.</i></p>
Wood-fire pizza oven	<p>Also known as wood ovens, these are ovens that use wood fuel for cooking.</p> <p>Conditions:</p> <ul style="list-style-type: none"> <li>• Don't light your fire within three metres of any part of a building, hedge, shelter belt or any combustible material.</li> <li>• In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your pizza-oven, such as a water hose, mechanical digger, or water sprayer.</li> </ul> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>
Chiminea	<p>A freestanding front-loading fireplace or oven with a bulbous body, and usually has a vertical smoke vent or chimney.</p> <p>Conditions:</p> <ul style="list-style-type: none"> <li>• Don't light your fire within three metres of any part of a building, hedge, shelter belt or any combustible material.</li> <li>• In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your chiminea, such as a water hose, mechanical digger, or water sprayer.</li> </ul> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>
Hāngī, umu, braai and lovo cultural cooking fires	<p>Conditions:</p> <p>Your fire area must be less than two square metres.</p> <ul style="list-style-type: none"> <li>• Don't light your fire within three metres of any part of a building, hedge, shelter belt or any combustible material.</li> <li>• In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your cultural fire, such as a water hose, mechanical digger, or water sprayer.</li> </ul> <p>Find out more about the safe use of <a href="#">cultural fires</a>.</p> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>

Fire type	Description and conditions
Braziers	<p>A container for hot coals – usually an upright standing or hanging metal bowl or box.</p> <p>Conditions:</p> <ul style="list-style-type: none"> <li>• Your fire area must be less than 0.5 square metres.</li> <li>• Don't light your fire within three metres of any part of a building, hedge, shelter belt or any combustible material.</li> <li>• In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your brazier, such as a water hose, mechanical digger, or water sprayer.</li> </ul> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>
Fire pits/bowls	<p>A pit dug in the ground made from stone, brick or metal or a bowl on an upright stand, for recreational use.</p> <p>Conditions:</p> <ul style="list-style-type: none"> <li>• Your fire area must be less than 0.5 square metres.</li> <li>• Don't light your fire within three metres of any part of a building, hedge, shelter belt or any combustible material.</li> <li>• In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your fire pit/bowl, such as a water hose, mechanical digger, or water sprayer.</li> </ul> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>
Open drum and manufactured incinerators	<p>A drum or container with a mesh or solid lid designed to prevent the escape of hot ash or fire, and designed exclusively for incineration.</p> <p>Conditions:</p> <ul style="list-style-type: none"> <li>• Don't light your fire within five metres of any part of a building, hedge, shelter belt or any combustible material.</li> <li>• In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your incinerator, such as a water hose, mechanical digger, or water sprayer.</li> </ul> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>

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

Authorised fire types on public conservation land (PCL) in a restricted fire season, i.e. those fire types not requiring a fire permit because they are not considered 'fires in open air' are listed below:

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="#">barbeques and gas cylinders</a> and <a href="#">outdoor gas-operated appliances</a>.</p>
Pressurised liquid cookers	Small cookers that use kerosene or other similar liquids as fuel.
Campfires in a permanent fireplace	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 day time amenity areas.
Cooking and warming fires	<p>Fires lit in the backcountry (over one-hour walking time from the nearest road end) of public conservation land.</p> <p>Conditions:</p> <p>The fire must not be:</p> <ul style="list-style-type: none"> <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; and</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; and</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; and</li> <li>• lit during a prohibited fire season; and</li> <li>• lit in conditions where wind or other factors may cause the fire to spread to surrounding flammable material.</li> </ul> <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

Authorised fire types in a prohibited fire season, i.e. those fire types not requiring a fire permit because they are not considered 'fires in open air' are listed below

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="#">barbeques and gas cylinders</a> and <a href="#">outdoor gas-operated appliances</a>.</p>
Charcoal barbeques or grills	<p>Barbeques or grills that use either charcoal briquettes or natural lump charcoal as their fuel source.</p> <p>Condition:</p> <p>Don't use on an apartment balcony, deck, under a roof overhang or within other enclosed areas.</p> <p><i>If you cannot meet this condition, you must apply for a permit.</i></p>
Wood-fire pizza oven	<p>Also known as wood ovens, these are ovens that use wood fuel for cooking.</p> <p>Conditions:</p> <ul style="list-style-type: none"> <li>• Don't light your fire within three metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your pizza-oven, such as a water hose, mechanical digger, or water sprayer.</li> </ul> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>
Chiminea	<p>A freestanding front-loading fireplace or oven with a bulbous body, and usually has a vertical smoke vent or chimney.</p> <p>Conditions:</p> <ul style="list-style-type: none"> <li>• Don't light your fire within three metres of any part of a building, hedge, shelter belt or any other combustible material.</li> <li>• In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your chiminea, such as a water hose, mechanical digger, or water sprayer.</li> </ul> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>
Hāngī, umu, and lovo and cultural cooking fires	<p>Conditions:</p> <p>Your fire area must be less than two square metres.</p> <p>Don't light your fire within three metres of any part of a building, hedge, shelter belt or any other combustible material.</p> <p>In case your fire gets out of control, you must have a suitable way to extinguish it within five metres of your cultural fire, such as a water hose, mechanical digger, or water sprayer.</p> <p>Find out more about the safe use of <a href="#">cultural fires</a>.</p> <p><i>If you cannot meet these conditions, you must apply for a permit.</i></p>

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

Authorised fire types on public conservation land in a prohibited fire season, i.e. those fire types not requiring a fire permit because they are not considered ‘fires in open air’ are listed below :

Fire type	Description and conditions
Gas-operated appliances	Manufactured gas-operated appliances, such as barbeques, outdoor fireplaces and outdoor gas heaters. Find out more about the safe use of <a href="#">barbeques and gas cylinders</a> and <a href="#">outdoor gas-operated appliances</a> .
Pressurised liquid cookers	Small cookers that use kerosene or other similar liquids as fuel

## 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, when the fire or activity is necessary to prevent, reduce, or overcome any hazard to life or because of any other serious emergency.

We may grant fire permits during a prohibited fire season if weather or other conditions have temporarily reduced the fire hazard, so as to make it apparently safe to light a fire.

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

## Applying for a permit

When a fire permit is required, or if you’d like to check whether you need a permit, you can apply:

- Online through Fire and Emergency’s fire permitting system – [firepermit.nz](https://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 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, each location must be considered.

Permit applications must be inspected if the assessor has 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; or
- it involves burning large amounts of material unless the applicant has a history of successfully managing similar fires.

Additional factors that can be considered to be fire risk conditions or relevant fire control matters when assessing a fire permit application are:

- 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 and consider how to undertake the proposed fire safely.

Developing the [prescribed burn plan](#) is the responsibility of the applicant, however we can provide help and support on what the plan should contain in order to undertake 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:

- You must, immediately before lighting a fire, 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.

The permit must also include a condition to notify the Communications Centre immediately prior to lighting the fire, with the relevant phone number, for all fire permits where the fire is likely to be noticed by the public and reported as a 111 call, e.g. where the fire is close to a road or to other houses or buildings, or the fire covers a large area such as land clearing.

When our Communication Centre receives the notification from the fire permit holder they are able to flag the location in their system so that if a 111 call is received it is clear there is a permitted 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 of strips of low-flammability vegetation, or removing all vegetation down to mineral earth.

We plan to develop a guideline to provide clarity around the times and circumstances when applying this power may be necessary. Our approach is to work with affected landholders to try to reach a voluntary solution before we would use our powers to require firebreaks.

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

If Fire and Emergency reasonably consider 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, we can require that vegetation or thing to be removed or destroyed.

We will work with affected people to fix the issue first, but Fire and Emergency has the authority under [section 65](#) of the Fire and Emergency New Zealand Act 2017 to legally require action. You then have one month to fix the problem, although you can appeal against the requirement. Any appeal must be made within 14 days and will be handled through Fire and Emergency's dispute resolution scheme.

Our fire hazard removal powers apply to 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 threat) we can tell you, and immediately fix the problem ourselves in order to keep people and property safe.

## Reporting fire hazards

Anyone who becomes aware of a fire hazard or is worried about the potential of something being a fire hazard can report it to Fire and Emergency – see [Submit a Fire Hazard Assessment Request](#) at [www.fireandemergency.nz/at-home/fire-hazards-in-your-community/](http://www.fireandemergency.nz/at-home/fire-hazards-in-your-community/) for the Potential Fire Hazard Advice form.

## Assessment of fire hazards

Fire and Emergency will assess whether there is a potential for the fuel to cause harm or damage to people or 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
- providing education to the complainant or occupier/owner of the location of potential fire hazard on how to mitigate risks from fires is more appropriate
- the matter should be referred 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
20, 25	Must issue a <i>Fire hazard removal notice (s 65)</i> . Consider if an <i>Imminent danger notice (s 68)</i> is appropriate.
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.
10, 12	Provide information/education to occupier/owner/complainant on how to mitigate risks from fire.
6, 8, 9	Consider providing information/education to occupier/owner/complainant on how to mitigate risks from fire.
1–5	No further action.

## 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. 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, where the notice threshold has not been reached but the assessment indicates that proactive action would be helpful.
3. Providing the occupier or owner with the opportunity to voluntarily mitigate the risk within an appropriate time period, as the threshold for issuing a Fire hazard removal notice ([section 65](#)) has been met. If they won't do this voluntarily, we will issue a Fire hazard removal notice ([section 65](#)) to the occupier or owner of the land. The 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. Providing verbal notice to the owner or occupier of the land 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](#). This power would only be used where there is an 'almost certain' likelihood of a fire starting or spreading at any moment, which would put life or property at risk. Note: This power will be used very rarely.

## Powers of entry

We will not enter a property (other than going to the front door) without permission from the occupier.

If permission is not granted or an occupier cannot be located, we will assess the potential fire hazard from outside of the property or speak with the occupier of the neighbouring property to request access to better view the potential fire hazard.

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) in order 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, so 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)

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 has been 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.

We will always attempt to negotiate with the occupier or owner to give them an opportunity to fix the issue voluntarily, before we go with issuing a fire hazard removal notice.

The occupier of the land where the fire hazard is located is primarily responsible for its removal or destruction. 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 [Compliance and enforcement policy](#).

Compliance activities generally focus on education and awareness, followed by issuing warnings. If compliance is still an issue, then more formal enforcement powers may be used.

If there are cases of serious or repeated non-compliance, Fire and Emergency may use infringement notices or prosecute. For more information on Fire and Emergency's regulatory compliance policies and procedures and other relevant topics, visit [www.fireandemergency.nz/about-us/compliance-and-enforcement/](http://www.fireandemergency.nz/about-us/compliance-and-enforcement/)

## 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 Fire Information Unit on **0800 336 942**.

### Local contacts for this plan

Local contacts specific to this fire plan are included with the area information in this document.



## Glossary

**4R's** - 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 an 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 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 spreading 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. 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.

**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.

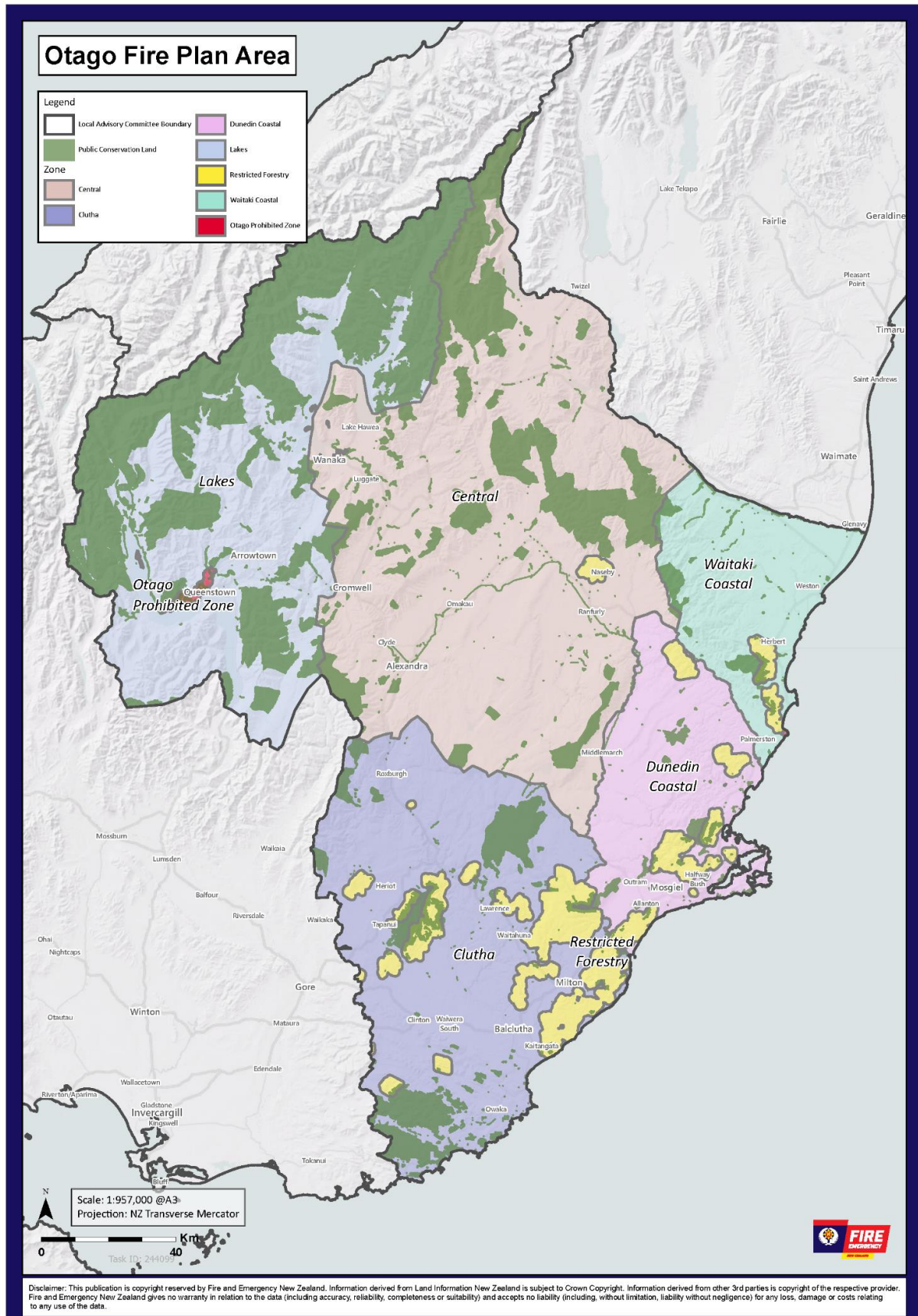
**Public conservation land (PCL)** – land used for conservation purposes, including National Parks and forest parks. Often managed by Department of Conservation or the regional council.

**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.

## Otago information

This section contains the information specific to this fire plan area, including an overview of the area as a whole, and more detailed information for each of the zones within the area.



## Area overview

### Geography

The area covered by this plan is the Otago Provincial Area. This is an area of some 37,000 square kilometres.

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

Demographics help us understand how our communities use fire, and the type of support they might need and how we communicate with them.

Demographic information is contained in each zone’s profile

### Zones

Because of the different fire risk conditions that exist in different parts of the fire plan area, the area is divided into a number of different zones. The boundaries of these zones being determined by their climatic features to allow for appropriate fire control measures to be applied locally. These zones are not linked to territorial authority boundaries.

- [Central Zone](#)
- [Clutha Zone](#)
- [Coastal Zone \(Dunedin\)](#)
- [Coastal Zone \(Waitaki\)](#)
- [Lakes Zone](#)
- [Prohibited Zones Otago](#)
- [Restricted Forestry Zones](#)
- [Public conservation land](#)

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

### New Zealand Defence Force

Fire and Emergency has entered into an operational service agreement with the New Zealand Defence Force. The New Zealand Defence Force exercises fire control powers in relation to certain Defence Areas listed in a schedule to the agreement, where they have their own fire plans.

None of the scheduled Defence Areas are in the Otago local area. Any New Zealand Defence Force activities, including training activities, in other Defence Areas are subject to Fire and Emergency’s fire permit requirements, though not our other fire control powers.

### Frequency of elevated fire danger

On average, this area experiences:

14.2 days of very high to extreme fire danger (Based on Scion fire danger climate data for seasonal severity)

- Central zone 34.8 days
- Clutha zone < 1 day
- Coastal zone 6.4 days
- Lakes zone 11.7 days

### Fire history

Statistics show that outdoor fire / burn offs are the main cause of 33% of unwanted vegetation fires across the Otago local Area.

The known fire history for this zone includes:

Year	Fire	Cause
1999	Alexandra/Fruitlands	Powerlines
2005	Closeburn; 150 ha	Fireworks
2006	Remarkables; 600 ha	Escaped prescribed burn
2010	Mount Allan; 800 ha	Forestry operations - Chainsaw
2012	Berwick forest; 30 ha	Powerlines
2014	Northburn	Prescribed burn, Fatality
2014	Wilson's Bay; 3 ha	Powerlines
2015	Aurum Terrace	Campfire – Red Zone
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	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 – 1000 ha	Escaped prescribed burn
2020	Gold Bar Road; 100 ha	Escaped burn
2020	Hyde-Middlemarch; 80 ha	Camp cooker

Year	Fire	Cause
2020	Lake Ohau; 5000 ha	Under Investigation
2020	McKenzie Road (Livingstone); 620 ha	Powerlines
2020	Pringle Gully Road; 10 ha	Escaped unpermitted burn
2020	Waipori Falls	Powerlines

### 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.

## Bylaws

The following bylaws may affect your ability to light a fire, even if you have obtained a fire permit from Fire and Emergency.

- Otago Regional Council's air pollution bylaws - <https://www.orc.govt.nz/managing-our-environment/air>
- Dunedin City Council's bylaw preventing the lighting of fires on beaches and reserves - [https://www.dunedin.govt.nz/\\_data/assets/pdf\\_file/0020/132581/10-Reserves-and-Beaches-Bylaw-2017-and-Maps.pdf](https://www.dunedin.govt.nz/_data/assets/pdf_file/0020/132581/10-Reserves-and-Beaches-Bylaw-2017-and-Maps.pdf)
- Clutha District Council's freedom camping bylaws - <https://www.cluthadc.govt.nz/publications/bylaws/Documents/Regulatory%20Bylaw/Clutha%20District%20Council%20Regulatory%20Bylaw%202018.pdf>
- Queenstown Lakes District Council's freedom camping bylaws - <https://www.qldc.govt.nz/your-council/council-documents/bylaws>

## Local contacts

Otago District office 0800 673 473

[Firepermit.otago@fireandemergency.nz](mailto:Firepermit.otago@fireandemergency.nz)

## Schedule of stakeholders

This schedule of stakeholders includes those who should be involved in the creation of these fire plan 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.

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 6-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.

## 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	Changing fire season to prohibited	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
NZ Defence Force	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 NZ	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	Changing fire season to prohibited	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 and Crown Forestry	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
New Zealand Police	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 stakeholders

This list is for stakeholders who have an interest across the fire plan area. Stakeholders that have a particular interest in a zone are included in the relevant zone information.

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Mana whenua; Ngai Tahu <ul style="list-style-type: none"> <li>• Ōtākou Runaka</li> </ul>	Consulted while creating plan	Consult while amending plan	Notifying using public channels	Notifying using public channels	Notifying using public channels
Department of Conservation; <ul style="list-style-type: none"> <li>• Ōtepoti– Dunedin Office (12 April 2021)</li> <li>• Ka Moana Haehae – Alexandra Office</li> <li>• Whakatipu-wai-Maori – 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	Consult during decision making	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
Port Blakely Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Calder Stewart	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
City Forest 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	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Ernslaw One	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
PF Olsen	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Wenita Forest Products	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Ngāi Tahu - Dunback Forestry Development	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
New Zealand Carbon Farming	Consulted while creating plan	Through FOA	Through FOA	Through FOA	Through FOA
Skyline Queenstown; Gondola, Luge and Mountain Bike trails	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Ziptrek	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Local Fire and Emergency brigades	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
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	Notifying using public channels	Notifying using public channels	Notifying using public channels
Otago Civil Defence Emergency Management Group	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
NZ Police; Southern District	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
St John; Southland/Otago	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Kiwirail	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Waka Kotahi (NZ Transport Agency)	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Aurora Energy	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Delta Utility Services	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Network Waitaki	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
PowerNet Limited	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Central Otago District Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Clutha District Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Dunedin City Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Waitaki District Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Queenstown Lakes District Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Otago Regional Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Environment Canterbury Regional Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Ministry for Primary Industries	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Federated Farmers	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 have an interest across the whole fire plan area, please contact us about being added to this list.

## Zone information

### Central Zone

#### Geography

Central Otago is located in the inland part of the Otago District. The area is dominated by mountain ranges to the upper reaches of the Clutha River and tributaries and spans from Lake Ohau at the northern tip of the zone down to Shingle Creek and across to Middlemarch and Macraes.

The wide flat plateau of the Maniototo which lies between the upper reaches of the Taieri River and the Clutha's northern tributary the Manuherikia is also part of the Central Otago.

Central Otago is known for its outdoor playground for hikers and cyclists and its thriving vineyards.

The Central zone holds a large amount of Public Conservation Land with high public use from lowland areas (Central Otago Rail Trail) to high country tracks and huts (Alps to Ocean trail) in this zone.

#### Demographics

Demographics help us understand how our communities use fire, and the type of support they might need and how we communicate with them.

Population: 23,100 (2018 Census Data)

Age	Percentage
Under 14	16.8%
15-39	25.7%
40-64	34.2%
Over 65	23.3%

Ethnicity	Percentage
European	79.4%
Asian	2.2%
Māori	2.1%
Pasifika	1.5%
Middle Eastern/Latin American/African	0.5%
Other	1.1%

#### Climate/weather

The Central Zone has the lowest annual rainfall in New Zealand recording 363mm in Alexandra and is known for its high summer temperatures (up to 38.7°C) and extreme cold in winter (down to -11.7°C).

Within these ranges, there are seven days over 30°C, 41 days recording over 25°C and 86 days below zero. The predominant wind during the summer period is from the north west.

**Land cover/  
land use**

The Central zone has a wide range of primary sector industries producing globally recognised products from top label wineries, world class merino wool and internationally targeted tourist destinations.

The zone also holds some high value public conservation land which incorporates 153,389 hectares, with 603 hectares of forestry and 360,053 hectares of high-country tussock lands and 137,862 hectares of high producing exotic grassland and 4001 hectares of orchard, vineyard or other perennial crop adding to those primary industries.

Amongst these landscapes are also high value lands in private ownership, some of which as restoration projects have undergone considerable effort and expense.

Recreational use of the high country for hunting, camping, adventure sports/races and 4WDing is also very popular.

**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>	☒	☒	☒
Ernslaw One – Naseby Forest <ul style="list-style-type: none"> <li>• use of machinery – sparks</li> <li>• relevant operations affected</li> <li>• Use of firebreaks</li> <li>• In own zone to apply additional controls</li> </ul>	☒	☒	☒

Fire Safety margins are in place around and within major forestry estates and are visible through the permitting system. Due to the values at risk, a restricted fire season remains in force when they are not in a prohibited fire season. Even when the surrounding zone goes to an open fire season, land will remain in a restricted fire season.

**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>	☒	☒	☐

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
Regional telecommunication and data aerial sites (located in high country areas) Protect by applying controls to surrounding areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Central Otago hydro power • Protect by applying controls to surrounding areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Central Otago District Council 3 Waters • Protect by applying controls to surrounding areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Small scale hydro schemes, e.g. Pioneer Energy (Central Otago) • Protect by applying controls to surrounding areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Roading network (SH6, SH8, SH8A SH87, SH85) • Sparks from vehicle malfunction, discarded cigarettes • Spark causing activities during road maintenance and mowing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Recreational locations

Although Central Otago is known for its outdoor playgrounds for hikers and cyclists and thriving viticulture and horticulture sectors, there are no specific locations of interest.

### Cultural and recreational activities and events

Tangata whenua have very strong ties to their whenua (land) and culture, and value being able to use their whenua without unnecessary restrictions.

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 for this zone are listed as stakeholders.

Large scale events that might be cancelled because a restriction on activities can have a significant economic impact, though most cultural activities are unlikely to be affected by fire control measures in this zone.

Placing restrictions or prohibitions on fire hazardous activities should not impose any unreasonable restrictions 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 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</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, back country running <ul style="list-style-type: none"> <li>• Access may be restricted during high fire danger</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Special risk areas

Special risk area	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
Lake Ohau Village <ul style="list-style-type: none"> <li>• Protect by applying controls to location and surrounding areas</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Public conservation lands <ul style="list-style-type: none"> <li>• Ecological values</li> <li>• In own zone to apply separate controls</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 in this zone listed in the Fire Hazard Removal Case Management System.

### Frequency of elevated fire danger

On average, based on Scion fire danger climate data for seasonal severity, this zone experiences 34.8 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
1999	Alexandra/Fruitlands	Powerlines
2014	Northburn	Prescribed burn - Fatality
2019	Cornish Point	Explosives
2019	Mount Pisa	Escaped prescribed burn - Unpermitted
2019	Waipiata	Dry lightning
2020	Lake Ohau Fire	Under investigation

**Predominant fuel type**

The predominant fuel type in this zone is grassland.

**Thresholds****Fire seasons**

The degree of grass curing (GC%) is the most relevant fire weather data to monitor for where grassland is the predominant fuel type.

Grass curing (%)	Build-up Index (BUI)		
	0-40	40-80	>80
0-60	Open	Open	Prohibited
60-90	Open	Restricted	Prohibited
90-100	Restricted	Prohibited	Prohibited

**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, however there are some local mitigations used to reduce the need to implement it.

**Tourist activities and holidaymakers**

During holiday periods, the Central and Lakes Zones experience a vast influx of transient population visiting these areas.

This is normally during high fire season, 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 as 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, fire-fighting resources and other essential operational details.

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

1km fire safety margins are in place around major forestry estates, due to the values at risk. A restricted fire season remains in force all year round inside these margins, which means a permit to light fires is always required.

[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 as 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 as they can make an informed decision not to automatically reenergise their lines if a fault occurs.

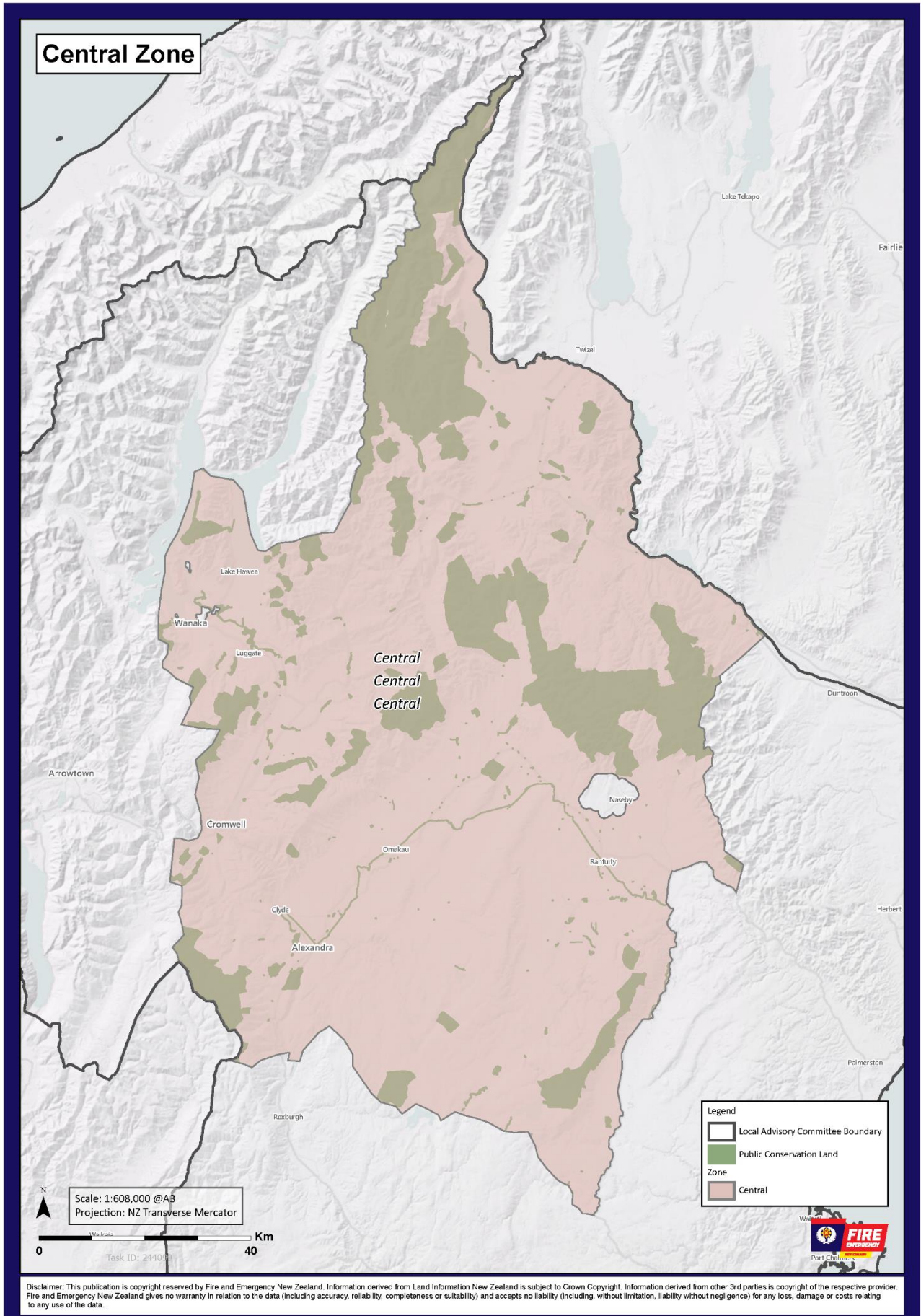
### Representative remote automated weather stations

The Remote Automated Weather Stations (RAWS) are used to determine whether we have reached the trigger thresholds and an average is taken across the relevant zone:

Central Zone	
Butchers Dam	Lauder
Clyde	Naseby Forest
Cromwell	Otematata
Dansey Pass	Ranfurly

We will consider the forecast for these locations when declaring or revoking a fire season.

### Central Zone map



## Central Zone stakeholders

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Mana whenua; <ul style="list-style-type: none"> <li>• Ōtākou Runaka</li> </ul>	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels
Department of Conservation; <ul style="list-style-type: none"> <li>• Ka Moana Haehae – Alexandra Office</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	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	Notify using public channels	Notify using public channels	Notify using public channels
Ernslaw One	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Local Fire and Emergency brigades	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
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
NZ Police; Southern District	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
St John Southland/Otago	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
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
Environment Canterbury Regional 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
Dunedin City 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
Waka Kotahi (NZ Transport Agency)	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
Federated Farmers	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels

If your organisation should be involved in fire plans, and have an interest in this zone, please contact us about being added to this list.

## Clutha Zone

### Geography

Clutha District is dominated by the valley of the Clutha River which splits into two branches into the Pacific Ocean.

The boundary of the district extends to the Catlins in the south, the Pacific Ocean in the east and Waipori, Taieri River which forms the north eastern border.

The Clutha zone holds the DOC Catlins Conservation Park and many other reserves within its zone.

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

### Demographics

Demographics help us understand how our communities use fire, and the type of support they might need and how we communicate with them.

Population: 18,350 (2018 Census Data)

Age	Percentage
Under 14	19.1%
15-39	27.7%
40-64	35.1%
Over 65	18.1%

Ethnicity	Percentage
European	77.7%
Asian	3.2%
Māori	4.9%
Pasifika	1.0%
Middle Eastern/Latin American/African	0.4%
Other	1.2%

### Climate/weather

The Clutha zone has a temperate climate with an average rainfall of 693mm 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 the alternating warm and dry/cool and wet weather patterns year-round.

Drier conditions are often the result of the north-westerly föhn wind, which dries as it crosses the Southern Alps. Wetter air is the result of approaching low-pressure systems which sweep fronts over the country 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

The Clutha zone has a wide range of farmland, forestry with high value conservation estate.

The Clutha zone is dominated by three main topographic features:

- Forests
- Hill country
- Floodplains

To the south is the rough bush country of the Catlins, with its forests and rugged coastline.

To the north of that the land is mainly rolling hill country, dissected by the floodplains of several large rivers. With the exception of the flat, fertile floodplains.

Land use includes rural, residential, commercial and industrial activities. The predominant land use is agricultural activities.

Amongst this landscapes are also high value lands in private ownership, some of which as restoration projects have undergone considerable effort and expense.

## 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
Commercial forestry <ul style="list-style-type: none"> <li>○ Blakely Pacific Ltd</li> <li>○ City Forest Ltd</li> <li>○ Wenita Forestry Products Ltd</li> <li>● use of machinery – sparks</li> <li>● relevant operations affected</li> <li>● mitigations in line with guidelines</li> <li>● Use of firebreaks</li> <li>● In own zone to apply separate controls</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>

## 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
Mount Stewart Wind Farm <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"/>
Trustpower Hydro Power Station <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"/>
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"/>

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"/>
Clutha District 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"/>
Roading network (SH1, SH8, SH87, SH90 and SH93) <ul style="list-style-type: none"> <li>Sparks from vehicle malfunction, discarded cigarettes</li> <li>Spark causing activities during road maintenance and mowing</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Recreational locations

Clutha has many walking and cycle tracks through bush land.

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

### Cultural and recreational activities and events

Tangata whenua have very strong ties to their whenua (land) and culture, and value being able to use their whenua without unnecessary restrictions.

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 for this zone are listed as stakeholders.

Large scale events that might be cancelled because a restriction on activities can have a significant economic impact, though most cultural activities are unlikely to be affected by fire control measures in this zone.

Placing restrictions or prohibitions on fire hazardous activities should not impose any unreasonable restrictions 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 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"/>



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
Hunting <ul style="list-style-type: none"> <li>• Campfires</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, 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"/>

**Special risk areas**

Special risk area	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
Yellow Eyed Penguin colony	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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 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**

This zone has no long-term fire hazards listed 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.

**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
2012	Berwick Forestry	Powerlines
2020	Waipori Falls	Powerlines

**Predominant fuel type**

This zone is a mixture of commercial and private forestry, grasslands and pockets of scrub

## Thresholds

### Fire seasons

Build-up Index 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.

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

### 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, however there are some local mitigations used to reduce the need to implement it.

#### Tourist activities and holidaymakers

During holiday periods, the Central and Lakes Zones experience a vast influx of transient population visiting these areas.

This is normally during high fire season, 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 as 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, fire-fighting resources and other essential operational details.

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

1km fire safety margins are in place around major forestry estates, due to the values at risk. A restricted fire season remains in force all year round inside these margins, which means a permit to light fires is always required.

[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 as 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 as they can make an informed decision not to automatically reenergise their lines if a fault occurs.

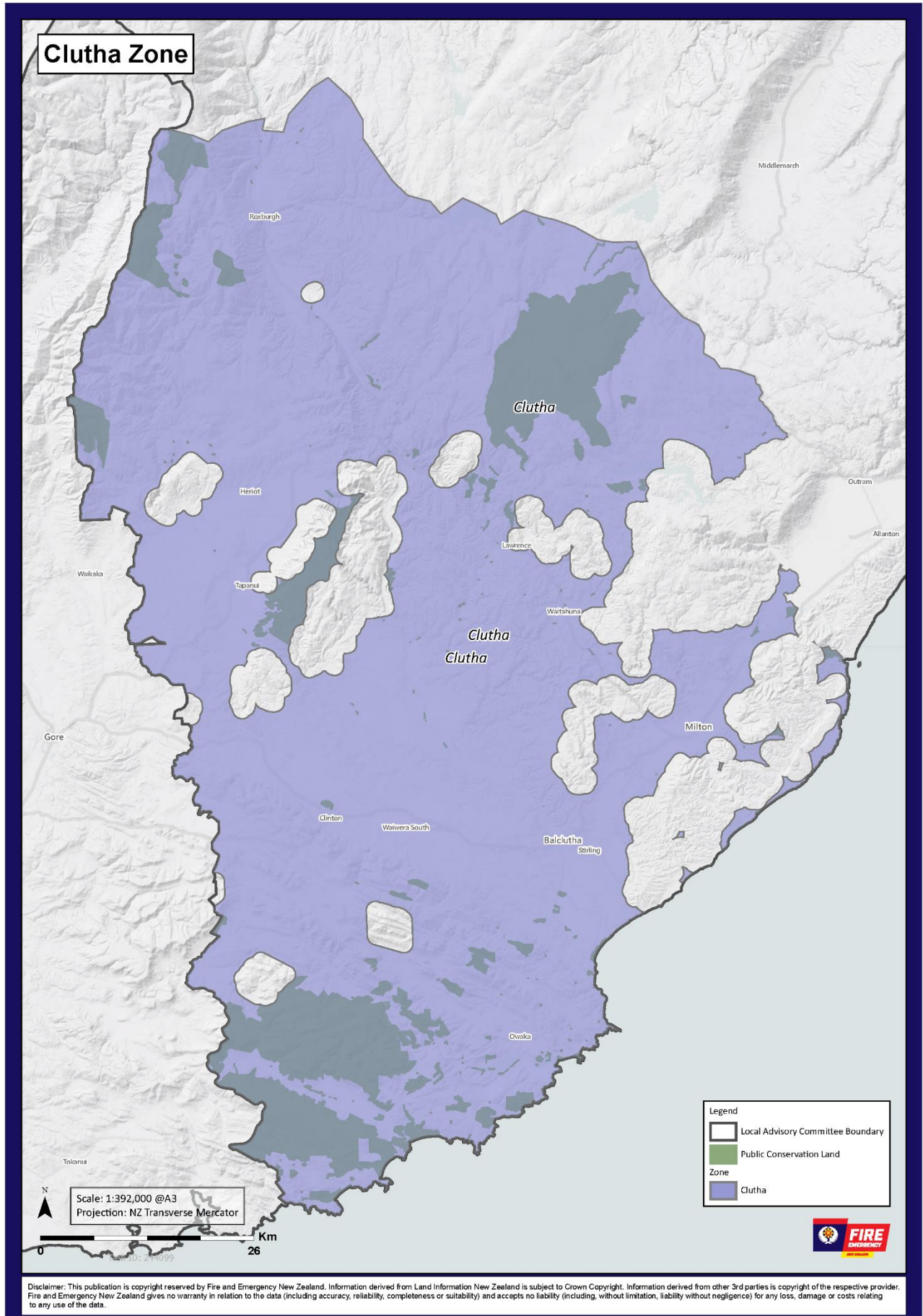
### Representative remote automated weather stations

The Remote Automated Weather Stations (RAWS) are used to determine whether we have reached the trigger thresholds and an average is taken across the relevant zone:

Clutha Zone	
Millers Flat	Tapanui
Glendhu	Waipahi

We will consider the forecast for these locations when declaring or revoking a fire season.

Clutha Zone map



**Clutha Zone stakeholders**

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Mana whenua; <ul style="list-style-type: none"> <li>• Ōtākou Runaka</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Department of Conservation; <ul style="list-style-type: none"> <li>• Otepoti – Dunedin Office</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Public including: <ul style="list-style-type: none"> <li>• Landowners</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	Notify using public channels	Notify using public channels	Notify 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
Calder Stewart	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
City Forest Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
PF Olsen	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Wenita Forest Products	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Local Fire and Emergency brigades	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Fire and Emergency Neighbouring Districts; <ul style="list-style-type: none"> <li>• Southland</li> </ul>	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Otago Civil Defence Emergency Management Group	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
NZ Police; Southern District	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
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
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
Clutha District Council	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
Federated Farmers	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels

If your organisation should be involved in fire plans, and have an interest in this zone, please contact us about being added to this list.

## Coastal Zone (Dunedin)

### Geography

The boundary of the district extends to the Rock and Pillars range in the west, Pleasant River in the North the Pacific Ocean in the east and southeast and the Waipori – Taieri River in the south. The coastline extends for approximately 200km and includes the Otago Harbour and Peninsula.

Dunedin is situated at the head of Otago Harbour, a narrow inlet extending south-westward for some 15 miles, the land area of greater Dunedin is approximately 3,314.8 km<sup>2</sup>.

Dunedin's hinterland encompasses a variety of different landforms. The Taieri Plains lie to the southwest, and the broad, fertile lowland floodplains of the Taieri River and its major tributary, the Waipori.

These are moderately heavily settled, and contain the towns of Mosgiel, and Allanton. They are separated from the coast by a range of low hills rising to some 300 metres.

Inland from the Taieri Plain is rough hill country. Close to the plain, much of this is forested, notably around Berwick and Lake Mahinerangi, and also around the Silverpeaks Range which lies northwest of the Dunedin urban area.

Beyond this, the land becomes drier and opens out into grass and tussock-covered land. A high, broad valley, the Strath Taieri lies in Dunedin's far northwest, containing the town of Middlemarch, one of the area's few concentrations of population.

To the north of the city's 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.

The Coastal - Dunedin zone holds the Department of Conservation Te Papanui conservation park and many other reserves within its zone.

### Demographics

Demographics help us understand how our communities use fire, and the type of support they might need and how we communicate with them.

Population: 131,700 (2018 Census Data)

Age	Percentage
Under 14	15.4%
15-39	38.2%
40-64	29.9%
Over 65	16.5%

Ethnicity	Percentage
European	74.6%
Asian	6.4%
Māori	2.4%
Pasifika	1.5%
Middle Eastern/Latin American/African	1.1%
Other	1.1%

### Climate/weather

The Coastal Zone has variable rainfall with the average rainfall around 968mm, with mid to high temperatures during summer, up to 37.7°C with 20 days in excess of 25°C, with the occasional high westerly wind.

The coastal areas of eastern Otago are topographically diverse. 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 south-west.

Warmer, drier northwest föhn 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 Coastal Zone (Dunedin) has a wide range of farmland, forestry with high value public conservation land.

The predominant land cover consists of high producing exotic grasslands, low producing grass lands for farming, commercial forestry, exotic forests and public conservation land.

Amongst these landscapes are also high value lands in private ownership, some of which as restoration projects have undergone considerable effort and expense.

### 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>	☒	☒	☒



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>• Use of firebreaks</li> <li>• In own zone to apply separate controls</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"/>

1 km fire safety margins are in place around and within major forestry estates and are visible through the permitting system. Due to the values at risk, a restricted fire season remains in force 365 days a year when they are not in a prohibited fire season. Even when a surrounding zone goes to an open fire season, this land will remain in a restricted fire season.

#### 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
Dunedin Airport <ul style="list-style-type: none"> <li>• Requirement for notification and permission for burns in flight path, under CAA rules</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"/>
Waipori Falls dam and power distribution 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"/>
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 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"/>

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
Rooding network (SH1, SH85, SH86, SH87 and SH88) <ul style="list-style-type: none"> <li>Sparks from vehicle malfunction, discarded cigarettes</li> <li>Spark causing activities during road maintenance and mowing</li> </ul>	☒	☒	☐

### Recreational locations

The Coastal (Dunedin) zone has many recreational outdoor activities and sporting fixtures that can and have been impacted in the past by wildfire. With a world class University of Otago on the doorsteps, there is a lot of outdoor activity all year round that interacts with the natural environment, beaches, exotic forests, recreational parks and reserves.

There are no locations specifically impacted in this zone.

### Cultural and recreational activities and events

Tangata whenua have very strong ties to their whenua (land) and culture, and value being able to use their whenua without unnecessary restrictions.

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 for this zone are listed as stakeholders.

Large scale events that might be cancelled because a restriction on activities can have a significant economic impact, though most cultural activities are unlikely to be affected by fire control measures in this zone.

Placing restrictions or prohibitions on fire hazardous activities should not impose any unreasonable restrictions 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 fire control measures
Dunedin Chinese Garden lantern Festival	☒	☒	☐
Cultural cooking, e.g. Hāngī	☒	☒	☐
Fireworks Use may be prohibited during high fire danger	☒	☒	☐
Hunting <ul style="list-style-type: none"> <li>Campfires</li> <li>Use of off-road vehicles – hot exhausts in long grass</li> <li>Access may be restricted during high fire danger</li> </ul>	☒	☒	☐

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
Mountain biking, back country running <ul style="list-style-type: none"> <li>Access may be restricted during high fire danger</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Special risk areas**

Special risk area	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
Okia Reserve; Yellow Eye Penguin Trust	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Blueskin and Orokonui Eco-Sanctuary	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Royal Albatross Centre	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Otago Peninsula	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Quarantine Island / Kamau Taurua	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
White Island	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Goat Island / Rakiriri	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Pudding Island	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Taieri Island / Moturata	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sandfly Bay	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

These areas have ecological values at risk.

**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**

On average, this zone experiences 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) – 5400 ha	Suspicious

Year	Fire	Cause
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 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.

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

### 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, 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 as 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, fire-fighting resources and other essential operational details.

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

1km fire safety margins are in place around major forestry estates, due to the values at risk. A restricted fire season remains in force all year round inside these margins, which means a permit to light fires is always required.

[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 as 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**

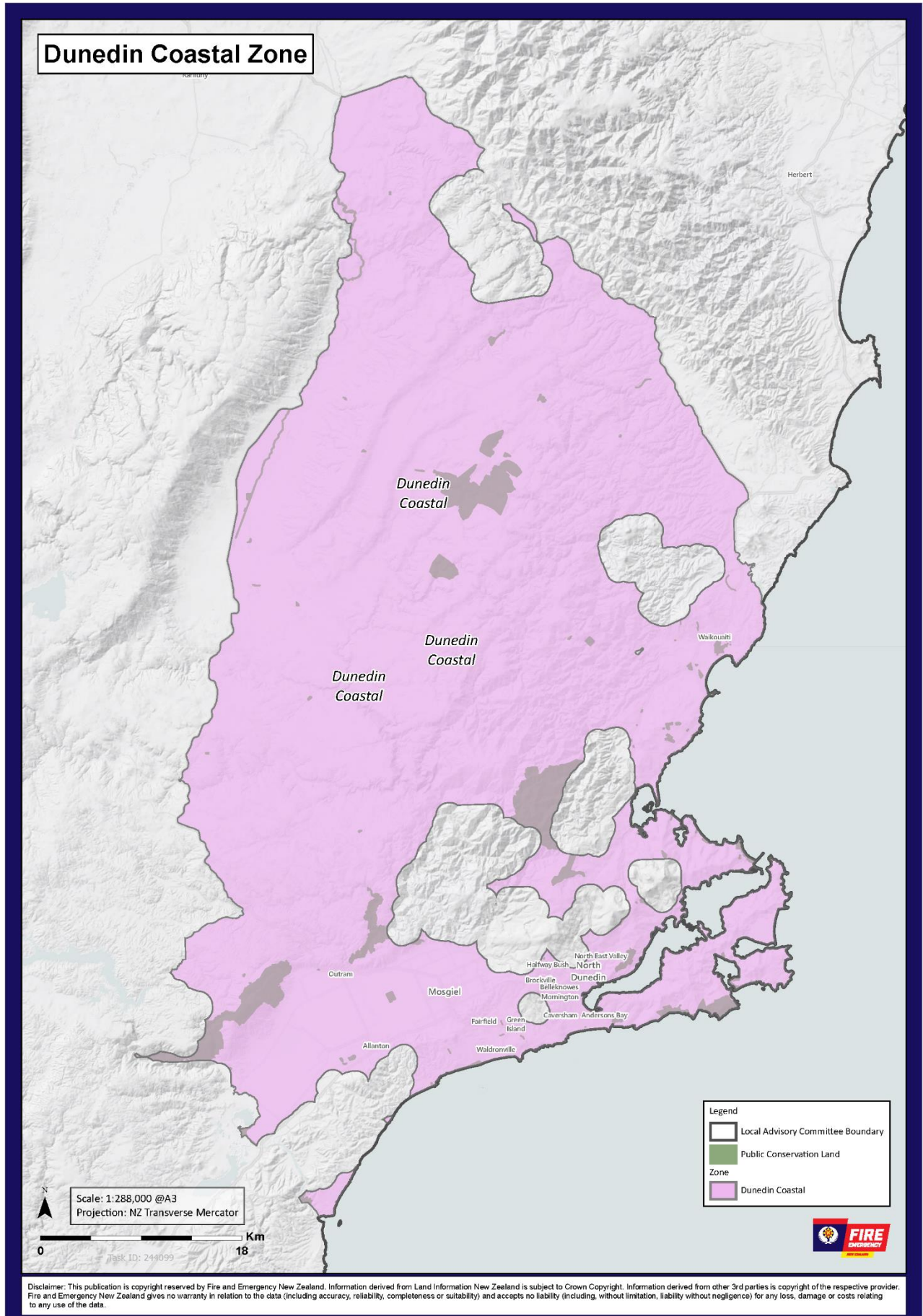
Fire and Emergency will work with power companies and their contractors to keep them informed of any fire danger and spike days across the Otago District so as they can make an informed decision not to automatically reenergise their lines if a fault occurs.

**Representative remote automated weather stations**

The Remote Automated Weather Stations (RAWS) are used to determine whether we have reached the trigger thresholds and an average is taken across the relevant zone:

Coastal (Dunedin) Zone	
Toko Mouth	Bucklands
Oamaru North	Rock and Pillar
Macrae's	Traquair
Herbert	Dunedin Airport

Coastal Zone map



**Coastal Zone (Dunedin) stakeholders**

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Mana whenua; <ul style="list-style-type: none"> <li>• Ōtākou Runaka</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Department of Conservation; <ul style="list-style-type: none"> <li>• Otepoti – Dunedin Office</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Public including: <ul style="list-style-type: none"> <li>• Landowners</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
Port Blakely Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
City Forest Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Wenita Forest Products	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Local Fire and Emergency brigades	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Fire and Emergency Neighbouring Districts; <ul style="list-style-type: none"> <li>• Southland</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

NZ Police; Southern District	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
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
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
PowerNet Limited	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
Dunedin City Council	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
Federated Farmers	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels

If your organisation should be involved in fire plans, and have an interest in this zone, please contact us about being added to this list.



## Coastal Zone (Waitaki)

### Geography

The Waitaki Coastal Zone stretches from the Pacific coastline to Kurow. It is the only district that overlaps two regions, Otago and Canterbury.

The Coastal (Waitaki) zone holds Department of Conservation reserves within its zone.

### Demographics

Demographics help us understand how our communities use fire, and the type of support they might need and how we communicate with them.

Population: 23,200 (2018 Census Data)

Age	Percentage
Under 14	18.0%
15-39	25.6%
40-64	33.0%
Over 65	23.4%

Ethnicity	Percentage
European	78.2%
Asian	4.5%
Māori	2.4%
Pasifika	2.9%
Middle Eastern/Latin American/African	0.3%
Other	1.2%

### Climate/weather

The Coastal Zone has variable rainfall with the average rainfall around 968mm, with mid to high temperatures during summer, up to 37.7°C with 20 days in excess of 25°C, with 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.

Amongst these landscapes are also high value lands in private ownership, some of which as restoration projects have undergone considerable effort and expense.

### 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>• Use of firebreaks</li> <li>• In own zone to apply separate controls</li> </ul>	☒	☒	☒

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
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"/>
Oceania 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 refuge management in accordance with the company’s risk mitigation plans.</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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"/>

1 km fire safety margins are in place around and within major forestry estates and are visible through the permitting system. Due to the values at risk, a restricted fire season remains in force 365 days a year when they are not in a prohibited fire season. Even when a surrounding zone goes to an open fire season, this land will remain in a restricted fire season.

### 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"/>
Waitaki District 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"/>
Roading network (SH1, SH83 and SH85) <ul style="list-style-type: none"> <li>• Sparks from vehicle malfunction, discarded cigarettes</li> <li>• Spark causing activities during road maintenance and mowing</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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**

Tangata whenua have very strong ties to their whenua (land) and culture, and value being able to use their whenua without unnecessary restrictions.

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 for this zone are listed as stakeholders.

Large scale events that might be cancelled because a restriction on activities can have a significant economic impact.

Placing restrictions or prohibitions on fire hazardous activities should not impose any unreasonable restrictions on people living and enjoying recreational activities in this zone.

There are no current large-scale recreational events in the Waitaki such as concerts that may be affected by Fire and Emergency exercising its fire control powers in the event of a fire. Only general recreational activities may be affected. Cultural activities are unlikely to be affected.

**Special risk areas**

Special risk area	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
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"/>
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"/>

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 in this zone listed in the Fire Hazard Removal Case Management System.

**Frequency of elevated fire danger**

On average, this zone experiences 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
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
2019	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 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.

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

**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, 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 as 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, fire-fighting resources and other essential operational details.

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

1km fire safety margins are in place around major forestry estates, due to the values at risk. A restricted fire season remains in force all year round inside these margins, which means a permit to light fires is always required.

[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 as 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 as they can make an informed decision not to automatically reenergise their lines if a fault occurs.

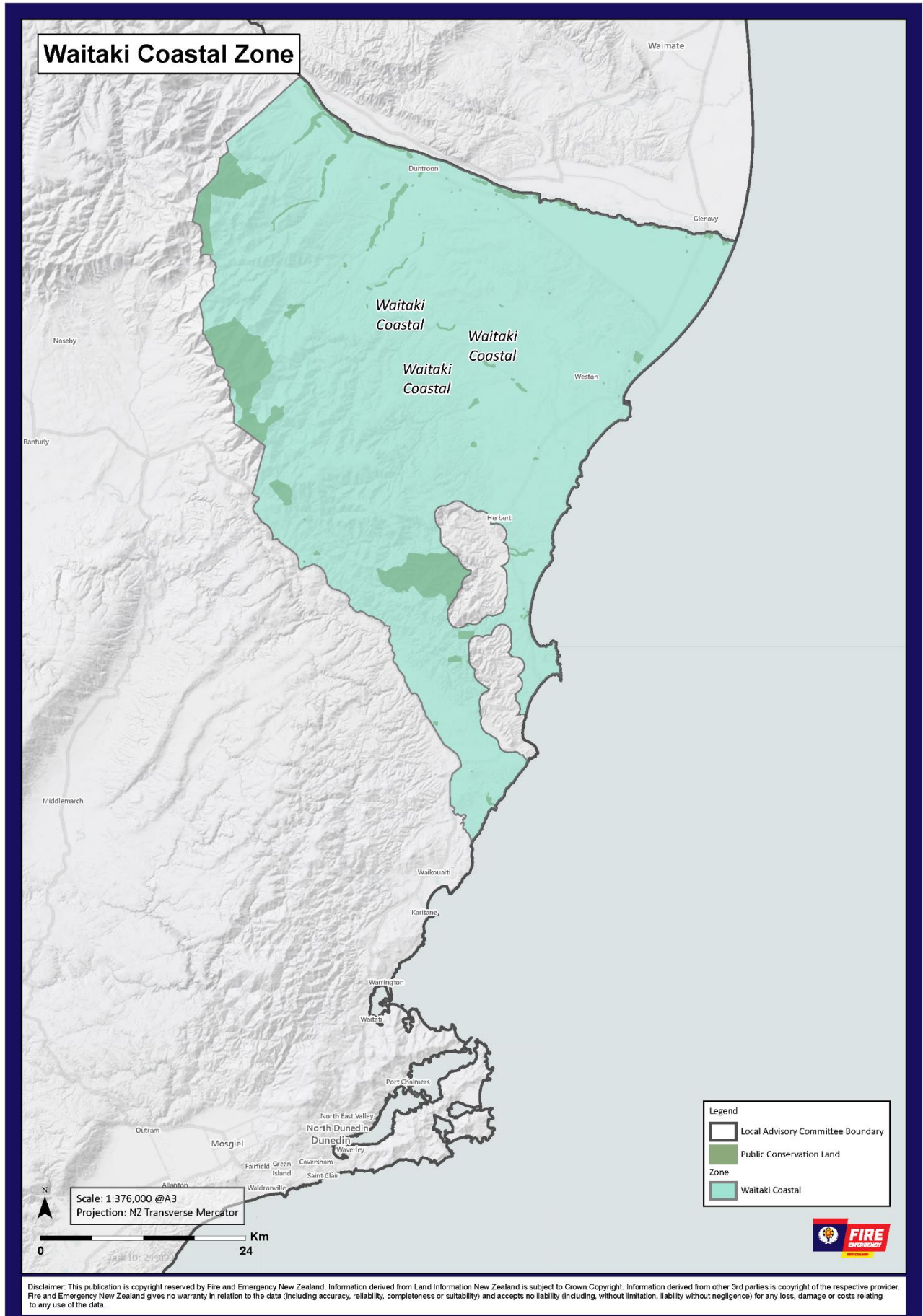
### Representative remote automated weather stations

The Remote Automated Weather Stations (RAWS) used to determine whether we have reached the trigger thresholds and an average is taken across the relevant zone are:

Coastal Zone (Waitaki)	
Toko Mouth	Bucklands
Oamaru North	Rock and Pillar
Macrae's	Traquair
Herbert	Dunedin Airport

We will consider the forecast for these locations when declaring or revoking a fire season.

### Coastal Zone (Waitaki) map



## Coastal Zone (Waitaki) stakeholders

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Mana whenua; • Ōtākou Runaka	Consulted while creating plan	Consult while amending plan	Consulting during decision making	Consulting during decision making	Consulting during decision making
Department of Conservation; • Otepoti – Dunedin Office (12 April 2021) • Te Manahuna - Twizel	Consulted while creating plan	Consult while amending plan	Consulting during decision making	Consulting during decision making	Consulting during decision making
Public Includes; • Landowner • Lifestyle property occupiers • Farmers • Agricultural workers • Public events • Tourism operators	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Port Blakely Ltd	Consulted while creating plan	Consult while amending plan	Consulting during decision making	Consulting during decision making	Consulting during decision making
Ngāi Tahu – managed by Wenita Forest Products Ltd	Consulted while creating plan	Consult while amending plan	Consulting during decision making	Consulting during decision making	Consulting during decision making
New Zealand Carbon Farming	Through FOA	Through FOA	Through FOA	Through FOA	Through FOA
Local Fire and Emergency brigades	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Fire and Emergency Neighbouring Districts; • Mid-South Canterbury	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Otago Civil Defence Emergency Management Group	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
NZ Police; Southern District	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels

St John Southland/Otago	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Kiwirail	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Network Waitaki	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
PowerNet Limited	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Waitaki District Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Environment Canterbury Regional Council	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Waka Kotahi (NZ Transport Agency)	Public consultation	Public consultation	Notifying using public channels	Notifying using public channels	Notifying using public channels
Federated Farmers	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 have an interest in this zone, please contact us about being added to this list.



## 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.

### Demographics

Demographics help us understand how our communities use fire, and the type of support they might need and how we communicate with them.

Population: 47,400 (June 2020)

Age	Percentage
Under 14	16.8%
15-39	42.4%
40-64	29.9%
Over 65	10.9%

Ethnicity	Percentage
European	73.6%
Asian	8.4%
Māori	1.3%
Pasifika	0.4%
Middle Eastern/Latin American/African	4.0%
Other	1.0%

### 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 max temperatures are between 21 to 24°C. Winter average lows are between 0 and -1.7° below zero.

Average annual rainfall is around 900mm. Relative humidity can drop below 20% 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 in particular 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 area has a wide range of primary sector industries, pastoral farming as well as more intensive agriculture such as dairy, high value conservation estate including Mount Aspiring National Park, ski fields and back country skiing.

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.

To the west, the higher rainfall supports beech species-dominated forest while to the east, substantial tussock grassland and grey shrubland dominate. Much of the Lakes Zone has been heavily modified by the first human arrivals.

Amongst these landscapes are also high value lands in private ownership, some of which as restoration projects have undergone considerable effort and expense.

**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, agriculture and vineyards <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"/>

**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> </ul> Recommended vegetation mitigation practices	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Queenstown Lakes District Council 3 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 (SH6 and 6A) <ul style="list-style-type: none"> <li>• Sparks from vehicle malfunction, discarded cigarettes</li> <li>• Spark causing activities during road maintenance and mowing</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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.

A number of recreational/commercial sites across the Lakes Zone could be impacted by restrictions during extreme fire weather events.

**Cultural and recreational activities and events**

Tangata whenua have very strong ties to their whenua (land) and culture, and value being able to use their whenua without unnecessary restrictions.

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 for this zone are listed as stakeholders.

Large scale events that might be cancelled because a restriction on activities can have a significant economic impact.

Placing restrictions or prohibitions on fire hazardous activities should not impose any unreasonable restrictions on people living and enjoying recreational activities in this zone.

**Special risk areas**

Special risk area	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
Mount Iron <ul style="list-style-type: none"> <li>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Queenstown Red Zone <ul style="list-style-type: none"> <li>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ruby Island (Lake Wanaka) <ul style="list-style-type: none"> <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>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mou Tapu Island (Lake Wanaka) <ul style="list-style-type: none"> <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 (Wanaka) <ul style="list-style-type: none"> <li>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Pig and Pigeon Islands (Lake Wakatipu) <ul style="list-style-type: none"> <li>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Coronet Forest (Queenstown) <ul style="list-style-type: none"> <li>In its own zone to apply separate controls</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Special risk area	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 conservation land <ul style="list-style-type: none"> <li>In its own zone to apply separate controls</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.

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

**Known fire hazards** There is no long-term fire hazard in this zone listed 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 - Red 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

**Predominant fuel type** Predominantly grass/forestry with some shrubland

## Thresholds

### Fire seasons

Build-up Index 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.

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

### 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, however there are some local mitigations used to reduce the need to implement it.

#### Tourist activities and holidaymakers

During holiday periods, the Central and Lakes Zones experience a vast influx of transient population visiting these areas.

This is normally during high fire season, 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 as 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, fire-fighting resources and other essential operational details.

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

1km fire safety margins are in place around major forestry estates, due to the values at risk. A restricted fire season remains in force all year round inside these margins, which means a permit to light fires is always required.

[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 as 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 as they can make an informed decision not to automatically reenergise their lines if a fault occurs.

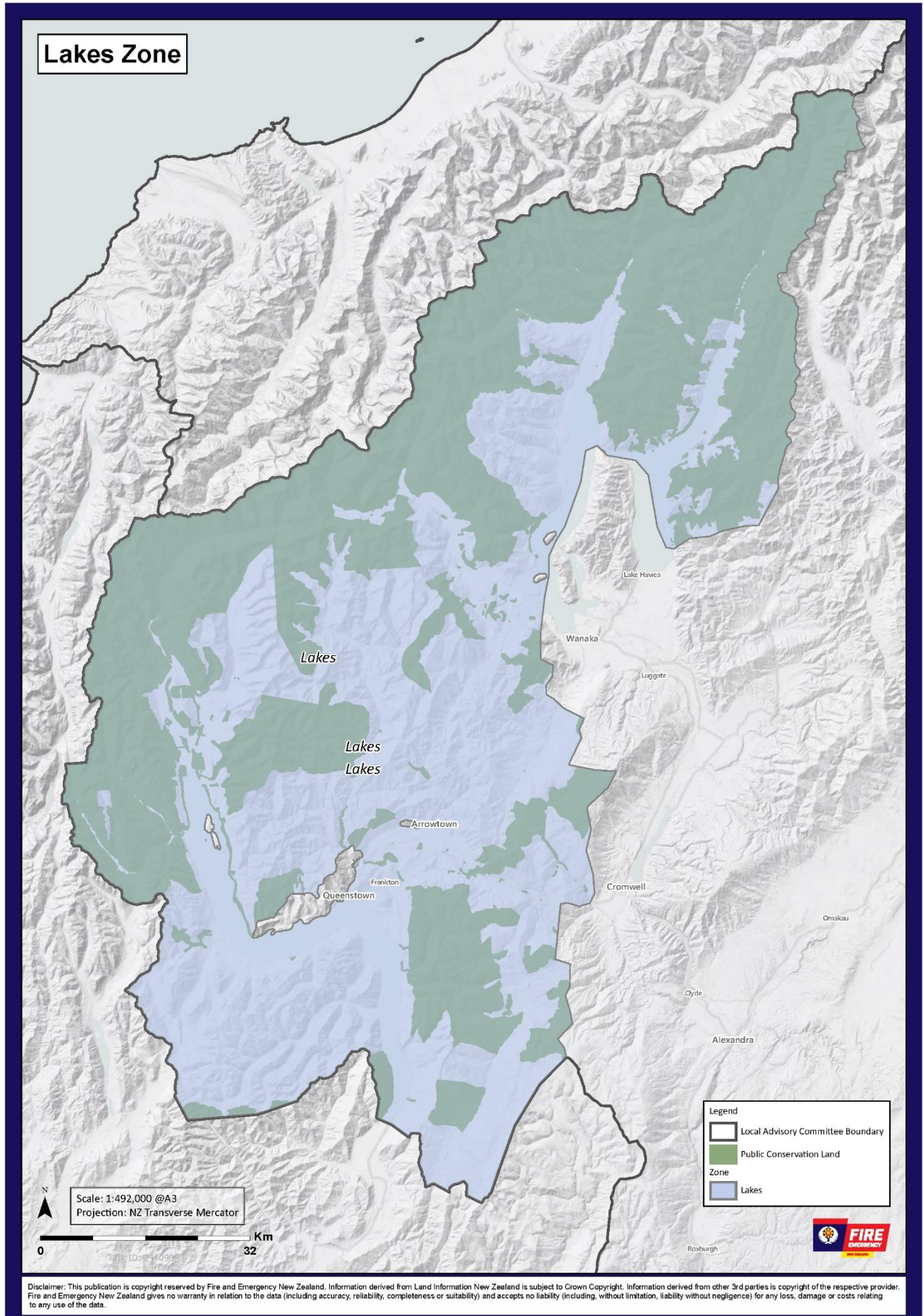
### Representative remote automated weather stations

The Remote Automated Weather Stations (RAWS) are used to determine whether we have reached the trigger thresholds and an average is taken across the relevant zone:

Lakes Zone	
Hawea Flat	Queenstown Aero

We will consider the forecast for these locations when declaring or revoking a fire season.

Lakes Zone map



## Lakes Zone stakeholders

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Mana whenua; <ul style="list-style-type: none"> <li>• Ōtākou and Southland Runaka</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Department of Conservation; <ul style="list-style-type: none"> <li>• Whakatipu-wai-Maori – Queenstown Office</li> <li>• Tititea – Mount Aspiring National Park Office</li> </ul>	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Public including: <ul style="list-style-type: none"> <li>• Landowners</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
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 Ecotours	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
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
NZ Police; Southern District	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels



St John Southland/Otago	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
Queenstown Lakes District Council	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
Federated Farmers	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels

If your organisation should be involved in fire plans, and have an interest in this zone, please contact us about being added to this list.

## Prohibited Zones Otago

### Special risk locations

Otago District has imposed a continuous year-round Prohibited zone in the following areas:

Mount Iron

- Queenstown Red Zone,
- Albert Town Recreation Reserve
- Shag Point
- Bucklands Crossing
- Ruby Island
- Stevensons Island
- Mou Waho,
- Mou Tapu,
- Pig and Pigeon Island,
- Coronet Forest.

Mount Iron and a zone around Mount Iron, including Albert Town Recreation Reserve, the Queenstown Red Zone and Shag point are areas of high risk rural/urban interface.

Buckland Crossing is an area with a history of fires by campers.

Given the vulnerability of these communities', total fire bans for 365 days of the year are in place.

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 and previous fires caused by visitors means total fire bans are a needed precaution.

Coronet forest is a high value forest. At the request of the Council this area is in a 365-day total fire ban.

### Climate/weather

No significant variation in climate to the lakes and coastal zones where these prohibited zones are located.

### Land cover/land use

All the prohibited zones are heavily vegetated.

- The Islands are almost exclusively native forest or regenerating forest.
- The Queenstown Red Zone is predominantly Pinus species
- Mount Iron - Kānuka,
- Shag Point is a mixture of native and introduced species.
- Buckland crossing is a campground area with predominantly gorse surrounding it.
- Coronet Forest is a high value Douglas fir plantation.

Fires in these areas in moderate or higher fire conditions will exhibit very high fire intensity and will threaten lives, homes and important conservation and investment values.

<b>Industry</b>	<b>Industry</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>
	Forestry – Shag Point, Coronet Forest <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>	☒	☒	☒
<b>Lifeline utilities/other infrastructure</b>	<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>	☒	☒	☐
<b>Recreational locations</b>	Walking tracks on Islands and access to some islands may be restricted in extreme fire weather conditions. Mountain bike areas and walking tracks within the Queenstown Red Zone may be closed in extended extreme fire conditions			
<b>Cultural and recreational activities and events</b>	<b>Cultural and recreational activities and events</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>
	Public access walking and mountain bike tracks	☒	☒	☐
<b>Known fire hazards</b>	There are no long-term fire hazards in this zone listed in the Fire Hazard Removal Case Management System.			
<b>Frequency of elevated fire danger</b>	See the relevant zone that each site is located in.			
<b>Fire history</b>	The known fire history in the Prohibited zones includes:			
	<b>Year</b>	<b>Fire</b>	<b>Cause</b>	
	2000	Pigeon Island Fire	Camp fire	
	2005	Closeburn Fire	Fireworks	
	2012	Mount Iron	Powerlines	
	1998	Buckland's Crossing	Camp fire	

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## Thresholds

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**Prohibited seasons year-round** 365 day prohibited fire season. The Queenstown Red Zone and Mount Iron also have bans on fireworks in place.

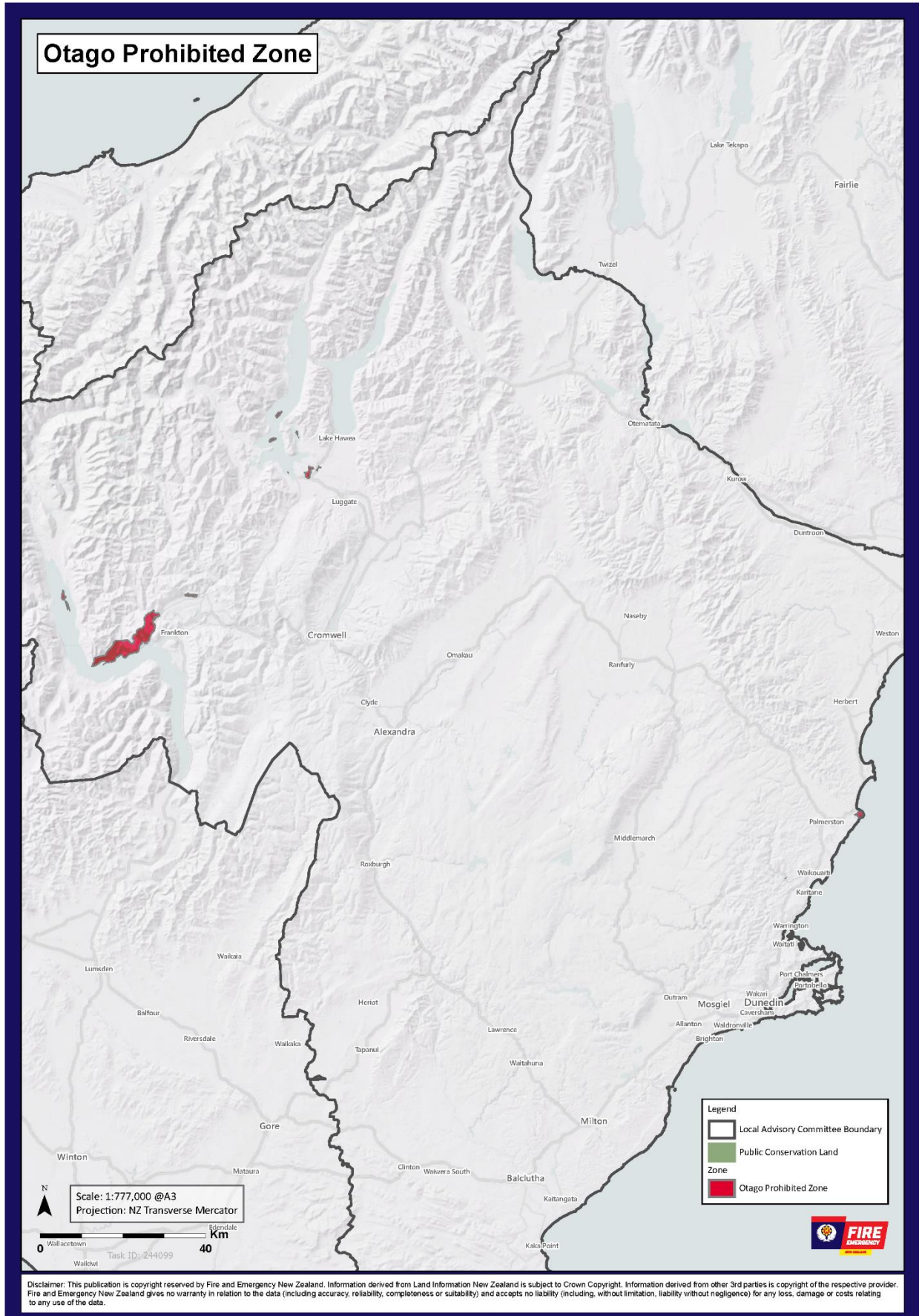
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**Representative Remote Automated Weather Stations** The Remote Automated Weather Stations (RAWS) are used to determine whether we have reached the trigger thresholds set out in the fire plan. These sites are monitored and average daily indices (readings) are taken across the relevant zones:

See the relevant zone that each site is located in.

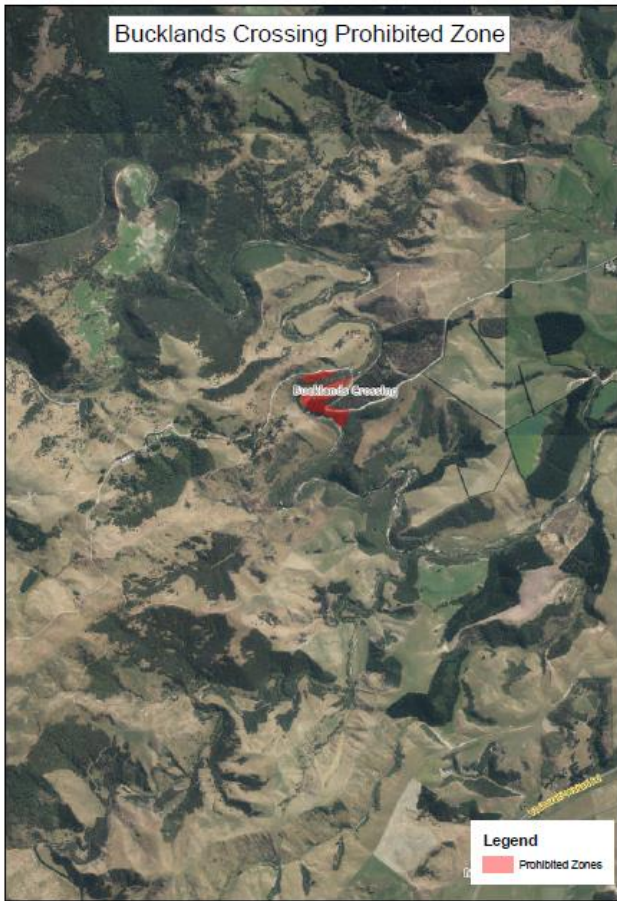
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Prohibited Zones Otago map











## Restricted Forestry Zones

**Special risk zones** Within Central, Clutha, Coastal Dunedin and Waitaki Zones there are 1km fire safety margins in place around and within all major forestry estates and are visible through the permitting system.

Due to the high values at risk, a restricted fire season remains in force 365 days a year when they are not in a prohibited fire season. Even when the surrounding zone goes to an open fire season, land will remain in a restricted fire season.

**Demographics** See the relevant zone that each site is located in.

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

**Land cover/land use** Commercial plantation forests (exotic species), forests (mainly native species), pasture, wilding pines, and tussock and 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
Wenita Forestry	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
City Forest Limited	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Port Blakely Ltd	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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 high fire danger</li> <li>Recommended vegetation mitigation practices</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 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 Prohibited zones includes:

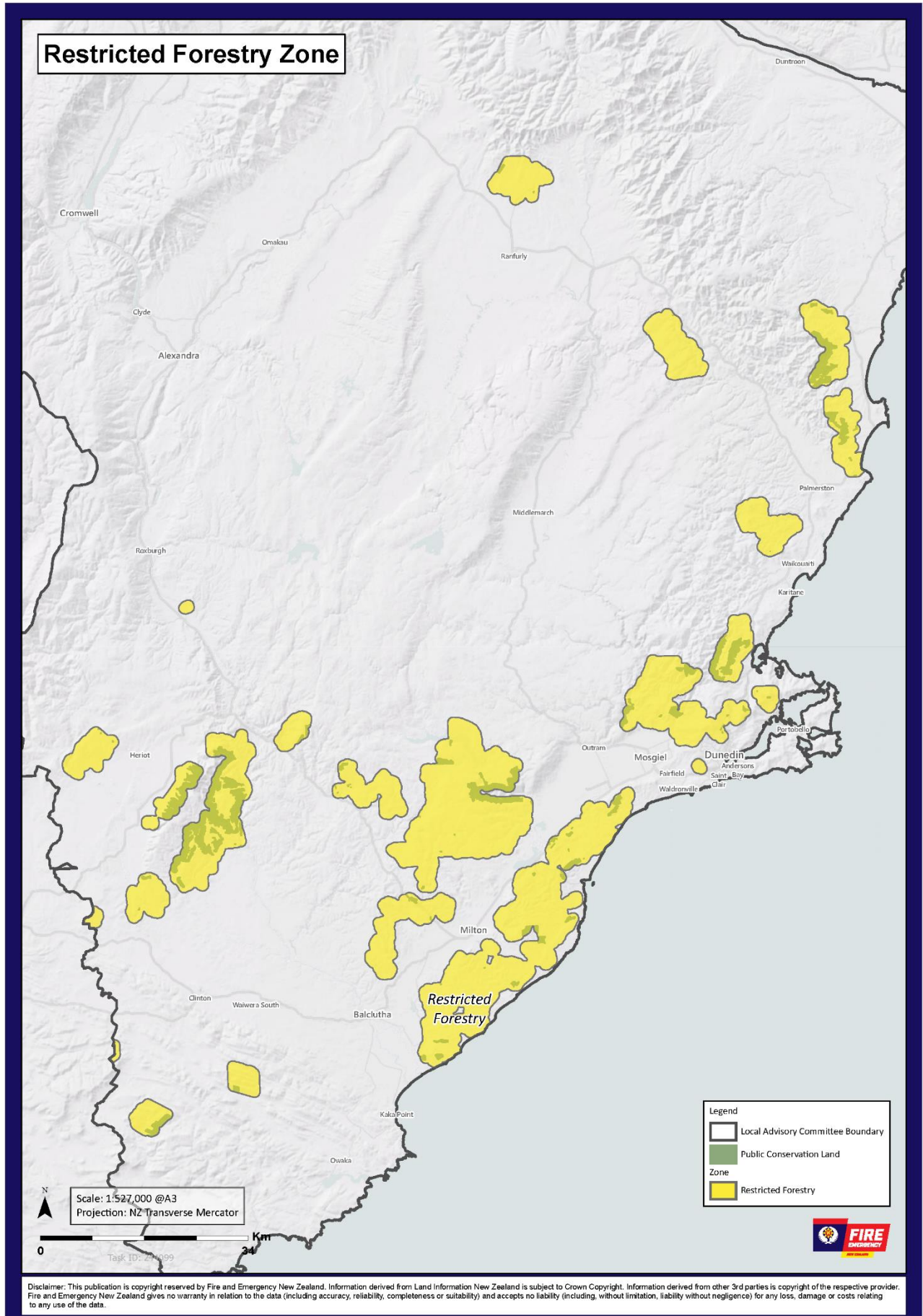
Year	Fire	Cause
2010	Mount Allan; 800 ha	Forestry operations - Chainsaw
2012	Berwick forest; 30 ha	Powerlines

## Thresholds

**Restricted seasons year round** Due to the high values at risk, a restricted fire season remains in force 365 days a year when they are not in a prohibited fire season. Even when the surrounding zone goes to an open fire season, 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 surrounding zone.

Restricted Forestry Zone map



## Public Conservation Land

### Geography

Includes the conservation areas, reserves, marginal strips and National Parks within the Otago local area.

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 are found on the broad block mountains of Central Otago.

### Land cover

Otago stretches from the dramatic landscapes of the eastern coasts and rainforests of the Catlins, westward through the ancient block mountains and drylands of Central Otago, to the beech forests and tussock grasslands of the lakes and mountains of the Southern Alps/Kā Tiritiri o te Moana, centred on Mount Aspiring National Park. Central Otago's low-relief range crests also support extensive wetlands and bogs.

### Special risk areas

Special risk area	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
Conservation areas within the Queenstown Red Zone	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Large scale areas of tussock grassland	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Coastal hoiho habitats	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Large wetland areas at risk from fire and firefighting chemicals	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Known fire hazards

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

### Fire history

The known 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) – 5400 ha	Suspicious
2020	Hyde-Middlemarch	Camp cooker
2020	Lake Ohau; 5000 ha	Under Investigation
2020	Waipori Falls	Powerlines

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## Thresholds

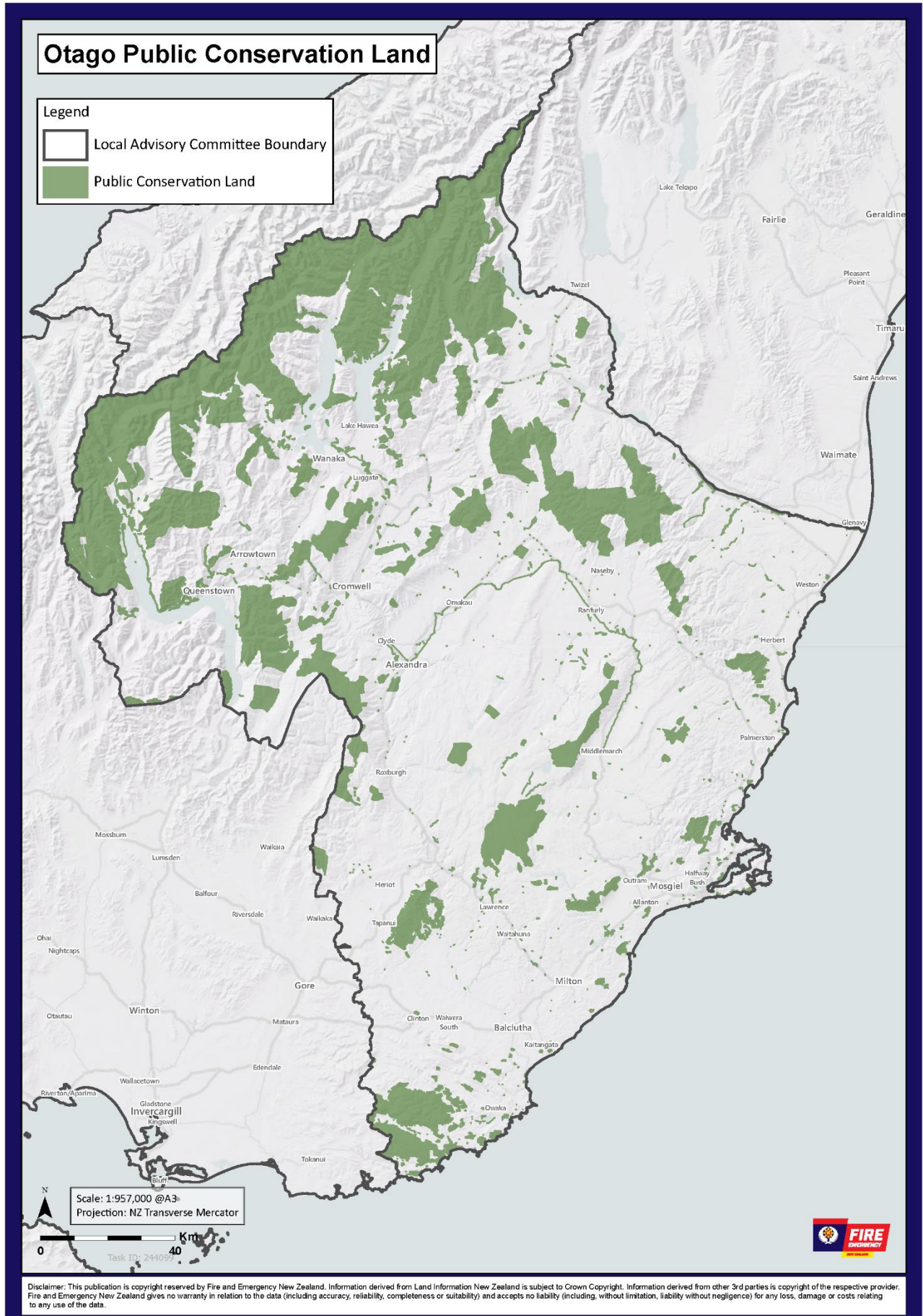
### **Restricted seasons year round**

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 surrounding zone.

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Public conservation land map



## Appendix 1 – RAWS locations

