

Fire Plan for Southland District

2024–2027



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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 District manager, Southland District. See [Local contacts](#).

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Approval

Full Name: Mike Grant

Title: Region Manager

Date:

Signature

Introduction

How to use this document

The front sections of this document cover:

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

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

Why do we have fire plans?

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

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

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

This means that we need to explain how we:

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

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

Content of the fire plans

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

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

Fire plans must do the following.

Describe local fire risk conditions

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

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

Set out policy

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

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

Set out procedures

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

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

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

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

A fire plan must be consistent with:

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

Cover the entire area

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

Set out Fire and Emergency's fire control powers

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

Local area and zones

Local area

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

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

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

Zones

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

We also look at previous analyses of the wildfire threat.

Applying fire seasons to zones

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

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

Consultation

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

Publish a notice

The notice should:

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

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

Consider submissions

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

Include a list of key stakeholders

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

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

Record stakeholder engagement

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

Review and amendment

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

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

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

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

4 Rs of emergency management

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

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

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



Reduction

Reduction means:

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

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

For Fire and Emergency, this work includes

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

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

Readiness

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

For Fire and Emergency, this includes:

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

Response

Response means:

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

For Fire and Emergency, this includes:

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

It can also include responding to:

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

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

Recovery

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

For Fire and Emergency, this includes:

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

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

In addition, as a precursor to recovery, we:

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

Our commitment to working with Māori as tangata whenua

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

We recognise:

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

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

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

National Framework for Fire Control

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

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

The public face of the framework is:

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

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

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

Our policies

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

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

Fire risk conditions

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

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

We also take these into account when setting fire seasons.

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

Decision-makers must be satisfied that:

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

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

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

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

Fire seasons

Fire and Emergency uses fire seasons to:

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

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

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

Fire seasons are applied to geographic zones based on:

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

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

Open fire season



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

Prohibited fire season



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

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

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

Open fire seasons

We use an open fire season when the fire danger is consistently low enough that Fire and Emergency does not need to apply additional controls on when people can light fires in the open air. To help you to use fire safely, we have a set of guidelines for fire types that you should follow even when there are no restrictions or prohibitions in place, see the [Authorised fire types, descriptions and conditions](#) table below for guidance.

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

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

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

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

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

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

Restricted fire seasons

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

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

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

Note: When you get a permit, you must read and follow the conditions of that permit.

Prohibited fire seasons

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

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

Trigger thresholds for changing fire seasons

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

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

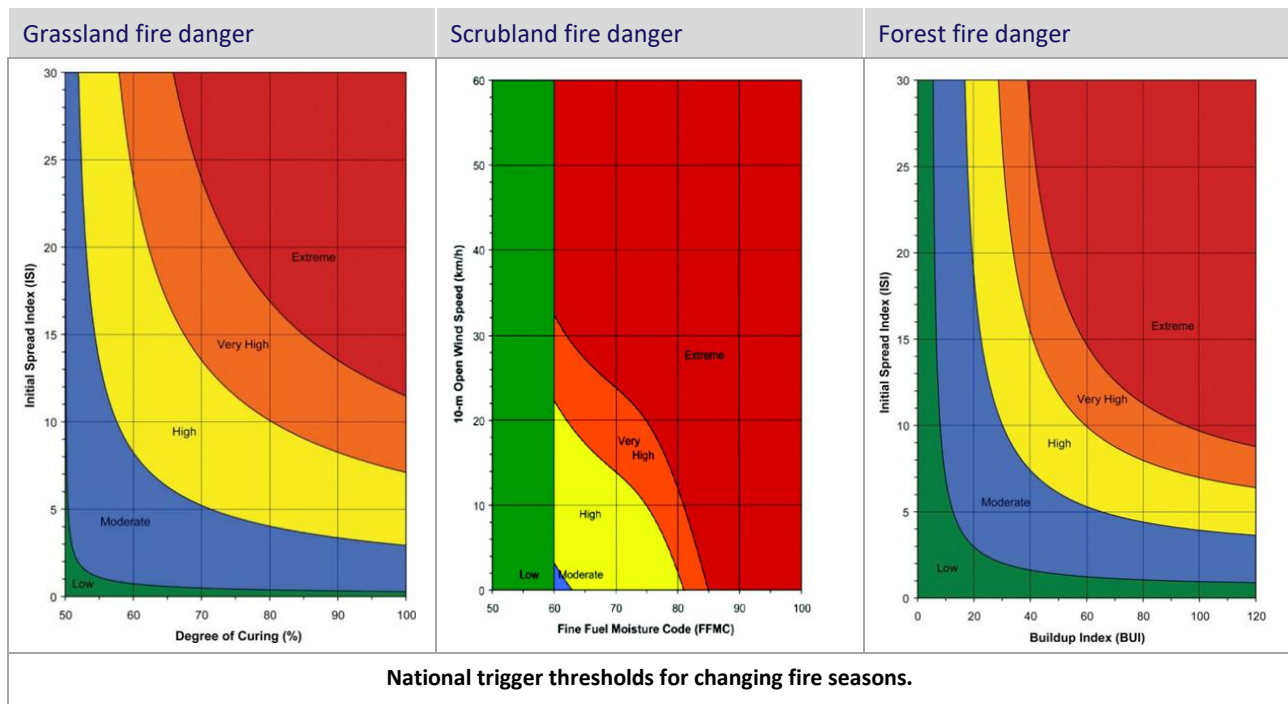
The trigger thresholds use:

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

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

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

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



Prohibiting fires in open air (section 52)

Fire and Emergency may sometimes need to prohibit fires in the open air outside the usual fire season changes. These occasions are known as Extreme fire, Red Flag Days or Cross-Over conditions. Examples of when we might use these powers are:

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

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

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

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

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

Trigger thresholds for prohibiting fire in open air

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

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

Restricting and prohibiting activities (section 52)

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

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

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

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

This table defines prohibition and restriction.

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

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

Essential services are:

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

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

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

Trigger thresholds for restricting or prohibiting activities under section 52

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

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

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

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

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

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

Activities and risk mitigation

Forestry operations

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

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

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

Powerline auto-reclosers

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

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

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

Hot works

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

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

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

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

Retail fireworks and pyrotechnics

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

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

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

Fireworks

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

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

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

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

Pyrotechnics

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

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

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

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

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

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

Communicating changes in fire seasons and restrictions or prohibitions

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

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

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

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

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

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

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

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

Fire permits

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

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

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

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

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

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

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

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

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

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

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

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

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

When a permit is needed

The need for a fire permit is based on the:

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

Fire types

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

- authorised (no permit required)
- permit required

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

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

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

Fire type	Description and conditions
Gas-operated appliances	Manufactured gas-operated appliances, such as barbecues, outdoor fireplaces and outdoor gas heaters. Find out more about the safe use of Gas BBQs, cookers and heaters .
Charcoal barbecues or grills	Barbecues or grills that use either charcoal briquettes or natural lump charcoal as their fuel source. Conditions <ul style="list-style-type: none"> • Don't use on an apartment balcony, deck, under a roof overhang or within other enclosed areas. • You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away. • You must not leave the fire unsupervised while burning If you cannot meet this condition, you must apply for a permit.
Open-top liquid fuel cooker	Examples include (but are not limited to) portable smokers. These are usually small portable cooking devices that are liquid-fuelled with an open fuel container either under or in the cooking device. Conditions <ul style="list-style-type: none"> • Must be on a non-combustible area/base. • You must have a suitable way to extinguish the fire within easy reach – a maximum of 5 metres away. • Don't light your fire within 3 metres of any part of a building, hedge, shelter belt or any other combustible material.

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

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

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

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

Fire type	Description and conditions
Gas-operated appliances	<p>Manufactured portable gas-operated appliances, such as butane tramping stoves, gas barbeques and outdoor gas heaters.</p> <p>Find out more about the safe use of barbeques and gas cylinders and outdoor gas-operated appliances.</p> <p>Conditions</p> <p>The gas-fire must not be:</p> <ul style="list-style-type: none"> • lit if the appliance is not in full operational condition in accordance with the manufacturer’s specifications • lit unless on a flat, level surface, stable and solid enough to support the weight of the appliance plus any containers and food used during cooking • lit unless at least one metre clear of all combustible material • lit in conditions where wind or other factors may cause the fire to spread to surrounding flammable material • left unsupervised while flame is present.
Pressurised liquid appliances	<p>Manufactured portable liquid cookers which use liquid under pressure to fuel the cooker. The type of liquid is not specific (e.g. White spirits, kerosene or methylated spirits) but the delivery mechanism is.</p> <p>Note: This excludes cookers using an open top, non-pressurised system.</p> <p>Conditions</p> <p>The pressurised liquid fire must not be:</p> <ul style="list-style-type: none"> • lit if the appliance is not in full operational condition in accordance with the manufacturer’s specifications • lit unless it is on a flat, level surface, stable and solid enough to support the weight of all the appliance parts plus any containers and food used during cooking • lit unless at least one metre clear of all combustible material • lit in conditions where wind or other factors may cause the fire to spread to surrounding flammable material • left unsupervised while flame is present and/or the liquid is still turned on.
Campfires in a permanent fireplace	<p>Positioned and constructed by the Department of Conservation (DOC) to minimise the threat of fire spread and located within formally established DOC overnight campsites or daytime amenity areas.</p> <p>Conditions</p> <ul style="list-style-type: none"> • The campfire in a permanent fireplace must not be: • lit if the fireplace has any damage that could allow the fire, hot embers, or ash to escape and spread beyond the constructed fireplace • within three metres of any combustible material • lit where notices and advertising are present which specifically prohibit the lighting of fires • lit during a prohibited fire season • lit in conditions where wind or other factors may cause the fire to spread to surrounding flammable material • left unsupervised while burning and without the ashes being fully extinguished

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

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

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

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

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

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

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

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

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

Permits in prohibited fire seasons or during prohibitions under section 52

Fire and Emergency may grant permits:

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

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.

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

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

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

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

Applying for a permit

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

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

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

Assessment

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

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

The assessor must inspect a permit applications if:

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

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

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

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

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

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

Mandatory conditions

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

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

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

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

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

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

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

For example, where the fire :

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

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

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

Firebreaks

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

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

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

Fire and Emergency has powers to:

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

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

Fire hazard removal

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

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

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

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

Reporting fire hazards

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

To do this:

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

Assessment of fire hazards

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

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

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

Initial review

The assessor starts by answering four key questions:

- Is the potential hazard:
 - trees close to power lines, or
 - hoarding inside a building?

If yes, then the hazard is referred to the relevant lines company or local council for action.

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

Risk assessment matrix

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

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

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

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

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

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

Outcomes from the fire hazard assessment

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

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

Note: We will use this power very rarely.

Powers of entry

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

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

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

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

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

Fire hazard removal notice (section 65)

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

The notice:

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

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

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

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

Imminent danger notice (section 68)

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

Anyone receiving the verbal notice should be able to understand:

- that Fire and Emergency has decided that [description of fire hazard] is a source of imminent danger to [life, property, and/or road]
- why the fire hazard is a source of imminent danger
- that Fire and Emergency has arranged for the [removal or destruction] of the fire hazard under [section 68](#) of the Act by [name of contractor] on [date]
- any arrangements for the storage of items removed from the land, and the terms under which the owner/occupier can retrieve those items.

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

Regulatory compliance

Fire and Emergency's role

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

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

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

Contact Fire and Emergency

In case of an emergency please call 111

General enquiries and questions

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

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

Lodge a complaint

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

Fire hazards

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

Local contacts for this plan

To communicate with the District team for this fire plan please email southlandriskreduction@fireandemergency.nz.

Glossary

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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.

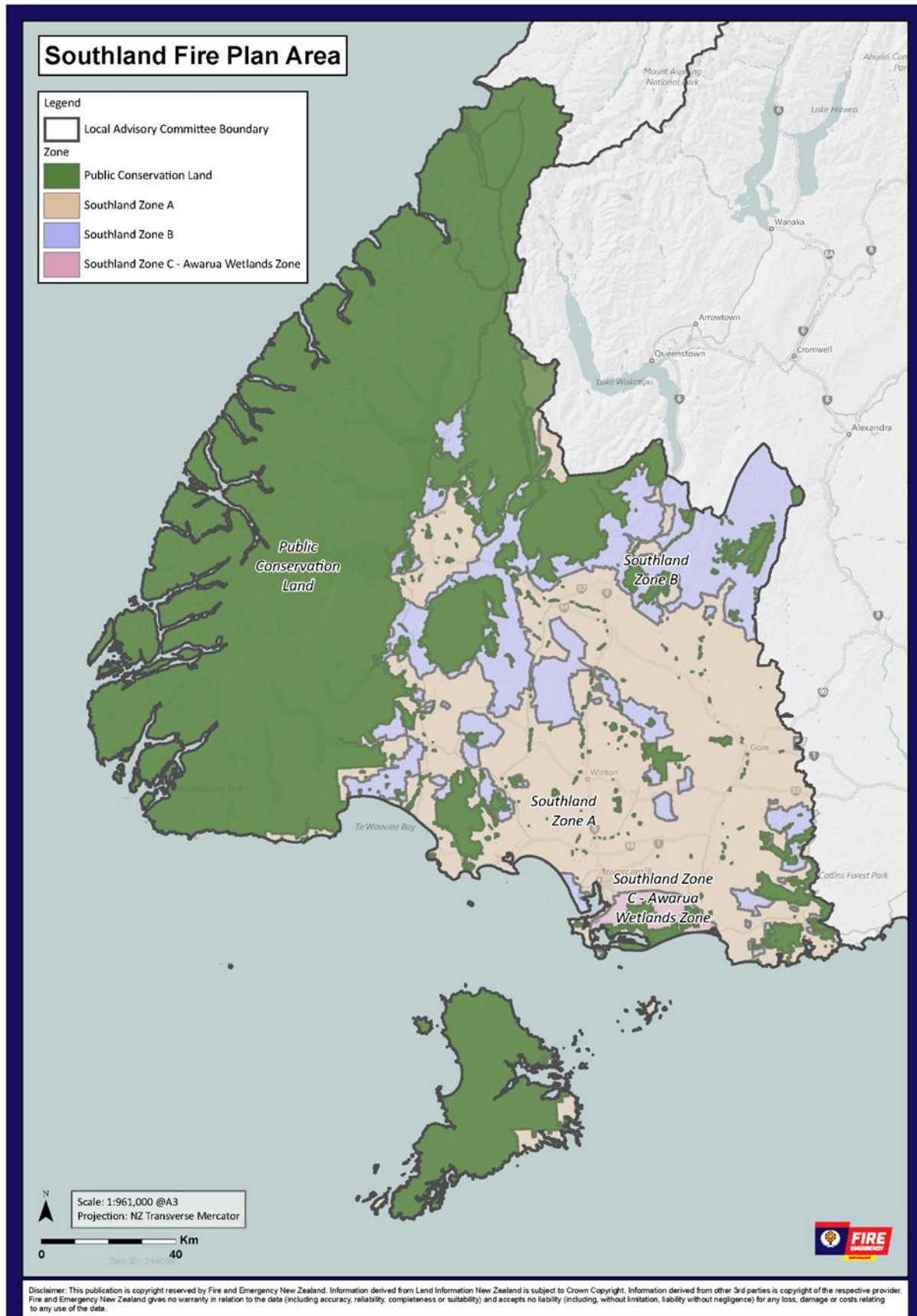
Public conservation land (PCL) – Land used for conservation purposes, including National Parks and forest parks. Often managed by Department of Conservation or the regional council.

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.

Southland 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

Southland is New Zealand's southernmost District and includes a total land area of 3,093,400 hectares.

Southland extends from Fiordland in the west, past the Mataura River to the Catlins on the east. To the north, Southland is framed by the Darran and Eyre Mountains. Farther south lies Stewart Island/Rakiura, which is separated from the mainland by Foveaux Strait.

Environment Southland is responsible for the sustainable management of Southland's natural resources – land, water, air and coast – in conjunction with three territorial land authorities: Southland District Council, Gore District Council and Invercargill City Council.

Department of Conservation and QEII National Trust administer approximately 1,757,000 hectares or around 57 percent of the total area.

Pastoral farmland makes up 33.14 percent of the district.

Southland's western side is comprised of Fiordland National Park. It is the largest national park in New Zealand at 1,200,000 hectares, making up five percent of New Zealand's total land mass. This area has an annual rainfall of around seven to nine metres.

Fiordland's terrain is dominated by mountains, fjords and glacial lakes carved up by glaciations during the last ice age. The region's coast is dotted by several fjords and other sea inlets, which stretch from Milford Sound in the north to Preservation Inlet to the south. Farther north and east in Fiordland lie the Darran and Eyre Mountains, which are part of the block of schist that extends into neighbouring Central Otago.

Farther east of the Waiau River, the Southland Plains predominate. These include some of New Zealand's most fertile farmlands. The region's two principal settlements, Invercargill and Gore, are located on the Plains. The Plains extend from the Waiau River in the west to the Mataura River to the east. They can be divided into three broad areas: the Southland Plain proper, the Waimea Plains and the lower Waiau Plain to the west, near the Waiau River. The southern part of these plains (including the Awarua Plains along the coast east of Bluff) contains much wetland and swamp, which have high environmental and conservation values.

In the far southeast of Southland rises the rough hill country of the Catlins. This area is divided between Southland and the neighbouring Otago District.

Due to the latitude and prevailing wind patterns, the area is affected by Foehn winds, resulting in wet moist conditions in the Fiordland area but warmer dry winds crossing the province towards the eastern side.

Southland has large areas of exotic forestry interspaced amongst the agricultural land, with many conservation areas as well. This complexity of land use and fuel types has steered the zoning for the area to be centred around risk type rather than just geographical climate zones to allow better management of activities in and surrounding those higher-risk areas.

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 data (2018 Census):

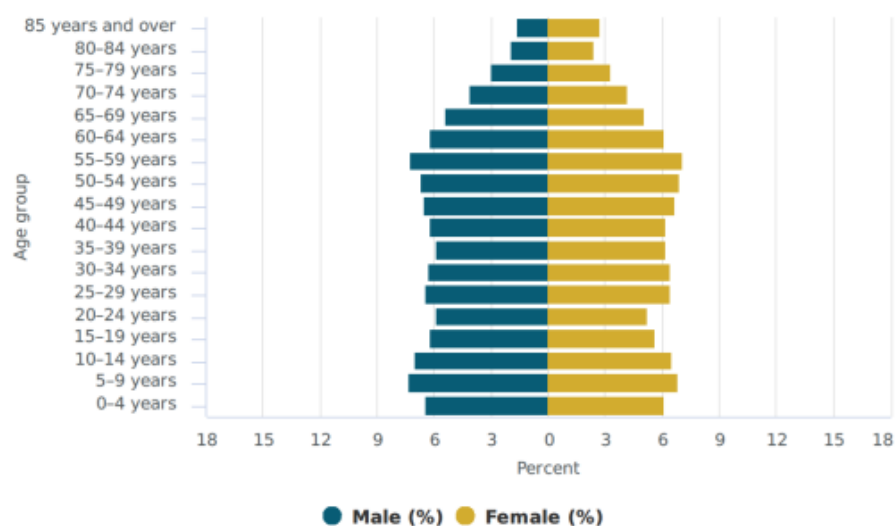
Territorial Local Authority	Usual resident population	Total private dwellings
Southland District	30,864	15,291
Gore District	12,396	5,577
Invercargill City	54,204	23,103
Southland area	97,467	43,977

Ethnicity data:

Territorial Local Authority	European NZer %	Māori %	Pacific %	Asian %	All other %
Southland District	88.1	11.1	1.1	6.2	2.3
Gore District	89	12.9	1.1	3.1	1.2
Invercargill City	85	17.4	3.8	5.7	1.5
Southland area	86.5	14.9	2.6	5.5	2.1

Note: People may identify as more than one ethnicity so % will exceed 100 percent for a location.

Age and sex of people in Southland Region, 2018 Census



Zones

The zoning in the Southland fire plan was done on a risk-based approach rather than on a purely geographic or climatic approach. Land areas with similar risks have been combined in one zone. This allows a targeted risk management approach during the whole year and during the fire season.

Southland is broken up into three zones and the Public Conservation Land (PCL), which is managed by the Department of Conservation (DOC):

- [Southland Zone A](#)
- [Southland Zone B](#)
- [Southland Zone C – Awarua Wetlands](#)
- [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 Southland 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

Southland Zone B and Southland Zone C – Awarua Wetlands are in permanent restricted status.

When Southland Zone A moves from an open to a restricted fire season, it comes into line with the other two zones. When required, a prohibited season is applied across the entire district in all three zones.

Due to the large and variable nature of the topography of Southland, a combination of data sources is used to inform the changes in fire seasons.

Remote Automated Weather Stations (RAWS) are used to determine the following across climate zones:

- Frequency of elevated fire danger
- The combination of trigger values reaching trigger points.

Scion historical data over 20 years, from six representative locations across the district, indicates Southland's experience for these fire danger classes:

- Forest Fire Danger Class (FFDC)
 - 2.5 of days of very high fire danger
 - 1.8 of days of extreme fire danger
- Grass Fire Danger Class (GFDC)
 - 3.6 of days of very high fire danger
 - 0.9 of days of extreme fire danger
- Scrub Fire Danger Class (SFDC)
 - 26 of days of very high fire danger
 - 109 of days of extreme fire danger.

Fire history

The known fire history in Southland wildfires or fires caused by activities regulated by our fire control powers includes:

Year	Fire	Cause
2005	Awarua Siding	Escaped burn off
2008	Papatotara	Undetermined
2009	Holz Road	Escaped burn off
2011	Papatotara	Undetermined
2012	Waituna Wetlands	Undetermined
2015	Lumsden-Dipton Highway	Escaped burn-off
2016	Cairn Peak	Spontaneous combustion of skid site
2017	Mount Prospect (1,300ha)	Escaped burn-off
2018	Tiwai Point	Power lines
2022	Awarua Bay	Human behaviour

Some of these larger vegetation fires in Southland were caused by escaped land clearing fires, or by failing/falling overhead power lines

Schedule of stakeholders

This schedule of stakeholders includes those who should be involved in the creation of these fire plans and their amendments or consulted before making use of the powers of section 52 of the Fire and Emergency New Zealand Act 2017, or notified when this happens. Zone-level stakeholders are listed with each zone description.

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. Note: We don't guarantee to use all or any inputs. Fire and Emergency New Zealand reserves the right to determine the best outcome for all communities. (To go to Legal for a check)
Public consultation	You will have the opportunity to comment during the four-week public consultation period.
Consult during decision making	The plan to change to a prohibited fire season or use section 52 will be discussed with you before it is implemented.
Notify of decision	You will be contacted directly when there is a change to a prohibited fire season, or when section 52 is implemented.
Notify using public channels	You will find out about the change in fire season, etc., the same way as other members of the public.
Notify via normal channels	This is relationship based, at either national or local level where existing relationships and engagement arrangements are used.

National-level stakeholders

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

Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Department of Conservation	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
New Zealand 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 of New Zealand	Public consultation	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making

Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Toitū Te Whenua Land Information New Zealand	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels
Taituarā – Local Government Professionals Aotearoa (formerly Society of Local Government Managers (SOLGM))	Consulted while creating plan	Consult while amending plan	Notify using public channels	Notify using public channels	Notify using public channels
Local Government New Zealand (LGNZ)	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: <ul style="list-style-type: none"> Te Uru Rākau New Zealand Forest Service 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
Nga Pirihimana O Aotearoa 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 and multi zone 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	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Department of Conservation <ul style="list-style-type: none"> Invercargill Area Office Te Anau Area Office 	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Notify of decision
Forestry companies/managers <ul style="list-style-type: none"> Ernslaw One Niagara (incl. Craigpine); Kennington Southwood Export; Awarua Lindsay and Dixon; Tuatapere Rayonier Matariki Forests PF Olsen Blakely Pacific Wenita Forests IFS Growth Log Marketing 	Consulted while creating plan	Consult while amending plan	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Consult during decision making
QEII National Trust	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Environment Southland	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Southland District Council	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Gore District Council	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Invercargill City Council	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Great South	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Emergency Management Southland	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Nga Pirihiimana O Aotearoa New Zealand Police Invercargill	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision

Stakeholder	Fire plan development	Fire plan amendment	Fire season changes Restricted or prohibited. Moving to, or revoking	Section 52 fire prohibitions	Section 52 restrictions/ prohibitions on activities
Hato Hone St John Ambulance Invercargill	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Federated Farmers of New Zealand – Southland	Public consultation	Public consultation	Notify via public channels	Notify via public channels	Notify via public channels
Mana whenua <ul style="list-style-type: none"> • Takutai O te Tītī – Riverton • Te Rau Aroha – Bluff • Murihiku Marae – Invercargill • O Te Ika Rama – Gore 	Public consultation	Public consultation	Consult during decision making and notify of decision	Consult during decision making and notify of decision	Notify of decision
Fire and Emergency neighbouring Districts: <ul style="list-style-type: none"> • Otago 	Consulted while creating plan	Consult during decision making	Consult during decision making	Consult during decision making	Consult during decision making
Power and lines companies <ul style="list-style-type: none"> • Transpower • Broadspectrum • PowerNet 	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Rio Tinto – Tiwai Point Aluminium Smelter	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
KiwiRail	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Public	Public consultation	Public consultation	Notify via public channels	Notify via public channels	Notify via public channels
Zone A					
Local Fire and Emergency career and volunteer brigades	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Zone B					
Local Fire and Emergency career and volunteer brigades	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Zone C					

Anyone else with relevant interest in this zone (e.g. councils, major landowners who have lands adjoining the forests)	Public consultation	Public consultation	Notify via public channels	Notify via public channels	Notify via public channels
Southern Forest	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Meridian – White Hill Windfarm	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision
Local Fire and Emergency career and volunteer brigades	Public consultation	Public consultation	Notify of decision	Notify of decision	Notify of decision

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

The zoning in the Southland fire plan was done on a risk-based approach rather than on a purely geographic or climatic approach. Land areas with similar risks have been combined in one zone. This allows a targeted risk management approach during the whole year, not just the fire season.

Southland Zone A

Geography

Southland's Zone A consists of the built urban environment of Invercargill and other smaller towns and communities such as Gore, Te Anau and Riverton. It also includes the parts of Stewart Island/Rakiura not managed by Department of Conservation.

Its landscape is flat to rolling and spreads into the foothills of the Takitimu and Eyre Mountains in the North, through the centre of the province and into the foothills of Fiordland in the West.

In the South it ends at Foveaux Strait and in the East, the Catlins.

This zone is mainly made up of built urban areas and heavily modified agricultural land, with the remaining land area containing scrub and other non-productive land cover.

Within this zone, urban areas meet and interact with the natural environment.

Southland Zone A has a total land area of 9,178.2km².

Demographics

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

See the demographics in the area overview.

Climate/weather

Southland Zone A is spread across Southland's land area, so a general description of the main weather patterns is used.

Southland is both the most southerly and most westerly part of New Zealand and generally is the first to be influenced by weather systems moving onto the country from the west or south.

It is well exposed to these systems, although western parts of Fiordland are sheltered from the south and the area east of the western ranges is partially sheltered from the north or northwest.

The region is in the latitudes of prevailing westerlies, and areas around Foveaux Strait frequently experience strong winds, but the winds are lighter inland.

Winter is typically the least windy time of year. For many but not all areas, it is also the driest.

The western ranges, with annual falls exceeding 9,000 mm in some parts, are among the wettest places on earth. The drier eastern lowlands and hills form a complete contrast, with annual falls predominantly between 800 mm and 1,200 mm. Dry spells of more than two weeks are not common.

Temperatures are on average lower than over the rest of the country, with frosts and snowfalls occurring relatively frequently each year. On average, Southland receives less sunshine than the rest of New Zealand.

**Land cover/
land use**

Farmland (pasture, crop), scrub, forest, and urban/built environment.

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"> • Use of machinery – sparks • Use of fire for land management • Relevant operations affected 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Dairy and several dairy processing plants <ul style="list-style-type: none"> • Fonterra – Edendale • Open Country – Awarua • Maitava Valley – Gore Sheep and beef farming, including several meat processing plants <ul style="list-style-type: none"> • Alliance – Lornville • Alliance – Maitava • Silver Fern Farm – Kennington • Blue Sky Meats – Invercargill South Pacific Meats – Awarua	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forestry <ul style="list-style-type: none"> • Use of machinery – sparks • Relevant operations affected • Use of firebreaks 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Timber industry, including several sawmills and wood chipping plants <ul style="list-style-type: none"> • Niagara Sawmilling (including Craigpine) – Kennington • Southwood Export – Awarua • Lindsay and Dixon – Tuatapere • Findlater – Ryal Bush Processing impacted by activity restrictions on supplier	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> • Impacted by restrictions on activities for suppliers 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> • People unfamiliar with local fire risk and rules • Access to locations may be restricted 	<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
Manapouri – Tiwai Aluminium Smelter 220 kV transmission line lines <ul style="list-style-type: none"> Protect by applying controls to surrounding areas 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Electricity transmission lines <ul style="list-style-type: none"> Sparking during high winds Use of auto-reclosers limited in high fire danger Recommended vegetation mitigation practices 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Railway line <ul style="list-style-type: none"> Sparks from passing trains and during track maintenance 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roothing network <ul style="list-style-type: none"> 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"/>
Natural gas distribution network <ul style="list-style-type: none"> Gas leaks Protected by own controls on use of fire and other activities in vicinity 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Telecommunications network <ul style="list-style-type: none"> Protect by applying controls to surrounding areas 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Kaiwera Downs Wind Farm <ul style="list-style-type: none"> Protect by working alongside landowner and if necessary applying controls to surrounding areas 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Recreational locations

Southland Zone A has no major recreational locations that historically would be impacted by restrictions under section 52 prohibition.

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 rūnanga 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.

Cultural and recreational activities and events	Contributes to increased risk of fire in high risk conditions	Affected by use of fire control measures	Needs to be protected by using of fire control measures	
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Kingston Flyer steam locomotive, Northern Southland <ul style="list-style-type: none"> Sparks from passing trains and during track maintenance 	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Fireworks <ul style="list-style-type: none"> Use may be prohibited during high fire danger Pyrotechnics managed by other approvals 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Hunting <ul style="list-style-type: none"> Campfires Access may be restricted during high fire danger 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Mountain biking, horse riding, back country running <ul style="list-style-type: none"> Access may be restricted during high fire danger 	<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 of fire control measures
	Public conservation land <ul style="list-style-type: none"> Ecological values at risk In own zone to apply separate controls 	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Frequency of elevated fire danger Scion historical data over a period > 20 years from six representative locations across Southland Zone A indicates Southland experiences for the below Fire Danger Classes:

- Forest Fire Danger Class (FFDC)
 - 2.5 of days of very high fire danger
 - 1.8 of days of extreme fire danger
- Grass Fire Danger Class (GFDC)
 - 3.6 of days of very high fire danger
 - 0.9 of days of extreme fire danger

- Scrub Fire Danger Class (SFDC)
 - 26 of days of very high fire danger
 - 109 of days of 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
2011	Kingston Flyer (3 ha)	Accidental – machinery
2017	Mount Prospect (1,300 ha)	Escaped burn off

Predominant fuel type

The predominant fuel type in this zone is grassland and scrub, including shelter belts, hedges, and small farm forestry woodlots.

Thresholds

Fire seasons

To determine the thresholds for a Restricted or a Prohibited Fire Season respectively in this zone, a combination of different fire weather indices have been used. This reflects the mix of different fuel types in this zone.

A change in fire season is considered when more than one value in the table below is exceeded and forecasted conditions indicate a continued trend across the climatic zones represented by the RAWs in Southland Zone A.

Fire Weather Indices	Fire season status		
	Open	Restricted	Prohibited
Built-up Index (BUI)	0–19	>/= 20	>/= 40
Grass Curing (GC)	< 60%	>/= 60%	>/= 60%

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 practicable.

If a zone is already in a restricted fire season, the following thresholds when likely to be exceeded across all four indicators, are used as triggers for implementing a total fire ban under section 52.

Fire Weather Indices	Fire season status
	Section 52 prohibition (Total fire ban)
Duff Moisture Code (DMC)	>/= 86
Wind speed	>/= 40 km/h
Initial Spread Index (ISI)	>/= 18
Fire Weather Index (FWI)	>/= 24

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

In Southland we have Forestry Agreements with our major forestry stakeholders in place and have established the document Te Kei Southern District Best Practice Guidelines for Fire Mitigation in Forest Operations to ensure best practice is clearly understood and implemented.

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

Operation of steam-powered machinery (train, traction engine)

Consider suspending this activity under section 52 in times of extreme fire danger.

Powerline auto-reclosers

We are currently consulting with Powernet and Broadspectrum on protocols for Southland.

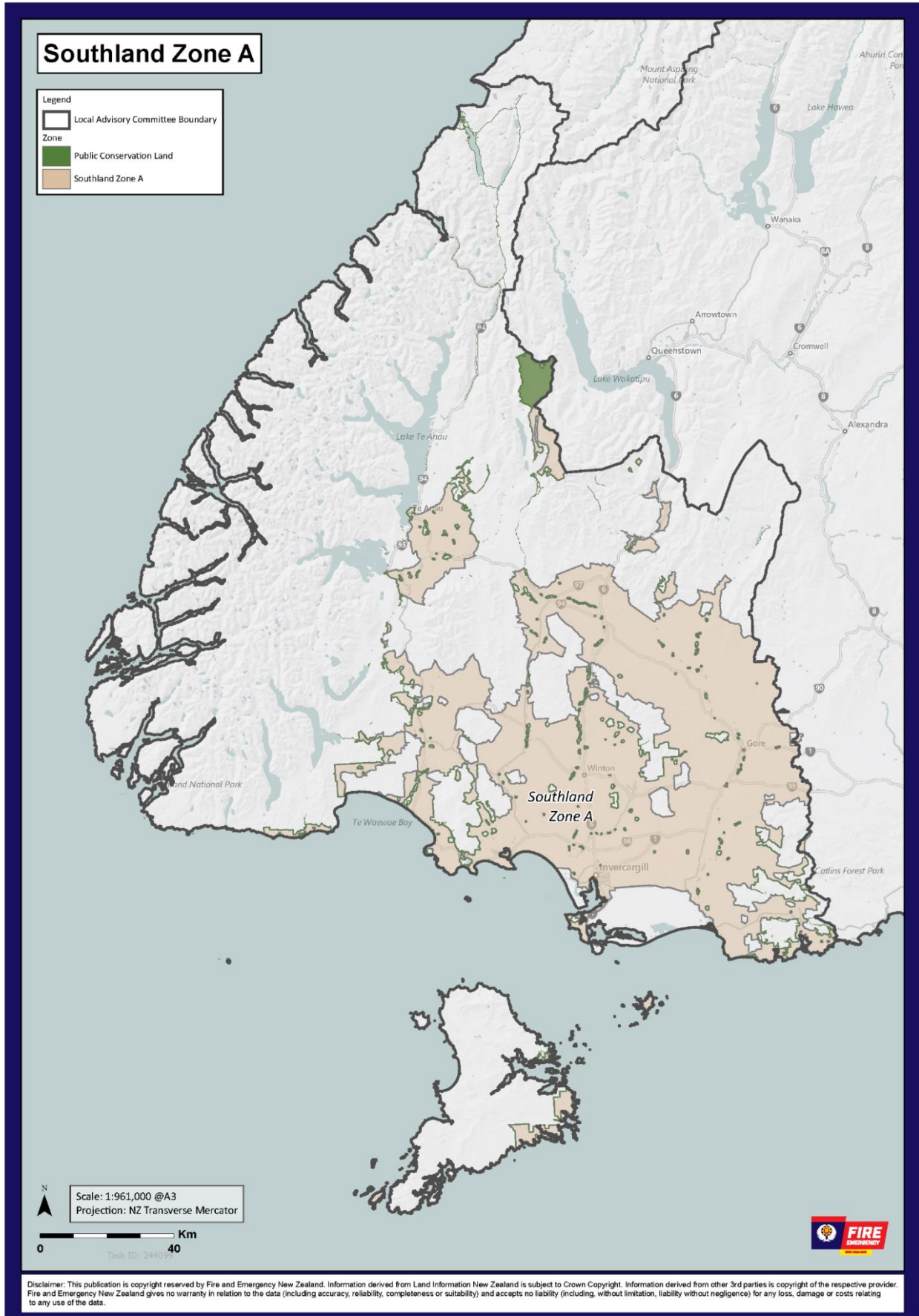
Representative remote automated weather stations

The Remote Automated Weather Stations (RAWS) used to determine whether we have reached the trigger thresholds are:

Barnhill	Milford Sound	Tapanui
Blackmount	Otama	Tisbury
Edendale	Slopedown	Tuatapere
Garston	Stewart Island/Rakiura	Wreys Bush
Glendhu	Tanner Road	Wilderness

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

Southland Zone A Map



Southland Zone B

Geography

Southland's Zone B is in a year-round restricted fire season. Areas in this zone have an identified elevated risk level with potential catastrophic outcomes if an unwanted fire should break out.

The zone consists mainly of commercial plantation forest blocks (including surrounding buffer zones) and land areas that are located in the high country.

A 365-day restricted fire season allows Fire and Emergency to engage actively with landowners/managers to manage the present risk on a day-by-day and case-by-case basis. If risk factors meet the threshold for a prohibited fire season, this zone will move into a prohibited season.

Southland Zone B has a total land area of 4,118.5 km²

Demographics

See the demographics in the [Area overview](#).

Climate/weather

Southland Zone B is spread across Southland's land area, so a general description of the main weather patterns is used.

Southland is both the most southerly and most westerly part of New Zealand and generally is the first to be influenced by weather systems moving onto the country from the west or south.

It is well exposed to these systems, although western parts of Fiordland are sheltered from the south and the area east of the western ranges is partially sheltered from the north or northwest.

The region is in the latitudes of prevailing westerlies, and areas around Foveaux Strait frequently experience strong winds, but the winds are lighter inland.

Winter is typically the least windy time of year. For many but not all areas, it is also the driest.

The western ranges, with annual falls exceeding 9,000 mm in some parts, are among the wettest places on earth. The drier eastern lowlands and hills form a complete contrast, with annual falls predominantly between 800 mm and 1,200 mm. Dry spells of more than two weeks are not common.

Temperatures are on average lower than over the rest of the country, with frosts and snowfalls occurring relatively frequently each year. On average, Southland receives less sunshine than the remainder of New Zealand.

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
Forestry <ul style="list-style-type: none"> • Use of machinery – sparks • Relevant operations affected • Use of firebreaks Forestry companies/managers <ul style="list-style-type: none"> • Ernslaw One • Niagara Sawmilling (including Craigpine) – Kennington • Southwood Export – Awarua • Lindsay and Dixon – Tuatapere • Findlater – Ryal Bush • Rayonier Matariki Forests • PF Olsen • Blakely Pacific • Wenita Forests • IFS Growth 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Primary production, including horticulture and agriculture (sheep and beef) <ul style="list-style-type: none"> • Use of machinery – sparks • Use of fire for land management • Relevant operations affected 	<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"> • Sparking during high winds • Use of auto-reclosers limited in high fire danger • Recommended vegetation mitigation practices 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roothing network <ul style="list-style-type: none"> • 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"/>

White Hill Wind Farm <ul style="list-style-type: none"> Protect by applying controls to surrounding areas 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Recreational locations

Hunting/access permits to lands in Southland Zone B may be cancelled during extreme fire danger.

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.

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
Southland Rally Sprint Racing <ul style="list-style-type: none"> Car fires and sparks from vehicle malfunction 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Trail rides	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> Use may be prohibited during high fire danger 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Special risk areas

All of Southland Zone B is considered a special risk zone, which is why it is its own zone in this fire plan.

Due to the nature of the activities (e.g. logging operation, general use of heavy machinery, fire as land management tool, etc.) the risk of an unwanted fire is elevated in this zone.

The plantation forests are all listed as Special Response Zones in the Southern District Fire Response Plan, which lists pre-determined responses depending on the fire danger level.

Known fire hazards

Due to the large amount of active and ongoing commercial forestry in this zone, numerous areas of known hazard do exist, such as skid sites.

However, these are managed in conjunction with the relevant forestry company specific to each block.

Fire history

The known fire history for this zone includes:

Year	Fire	Cause
2004	Papatotara (150 ha)	Undetermined
2011	Papatotara (80 ha)	Undetermined
2015	Lumsden-Dipton (100 ha)	Escaped burn-off
2017/18	Cairn Peak (40 ha)	Self-combustion skid site fire

Predominant fuel type

The predominant fuel type in this zone is forestry (plantation forests, exotic species), including some adjacent farmland (buffer area), and in the high-country areas, pasture, tussock, native bush, and some wilding pine.

Thresholds**Fire seasons**

Due to an elevated risk level in these land areas, Southland Zone B is in a restricted fire season when it is not in a prohibited fire season.

To determine the threshold for a prohibited fire season, a combination of different fire weather indices has been used. This reflects the mix of different fuel types in this zone.

A change in fire season is considered when more than one value in the table below is exceeded and forecasted conditions indicate a continued trend across the climatic zones represented by the RAWs in Southland Zone B.

Fire Weather Indices	Fire season status
	Prohibited
Built-up Index (BUI)	>/= 40
Grass Curing (GC)	>/= 60%

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.

Fire Weather Indices	Fire season status
	Section 52 prohibition (Total fire ban)
Duff Moisture Code (DMC)	>/= 86
Wind speed	>/= 40 km/h
Initial Spread Index (ISI)	>/= 18
Fire Weather Index (FWI)	>/= 24

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

In Southland we have Forestry Agreements with our major forestry stakeholders and have the Te Kei Southern District Best Practice Guidelines for Fire Mitigation in Forest Operations to ensure best practice is clearly understood and implemented.

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

Powerline auto-reclosers

We are working with Powernet and Broadspectrum on protocols for Southland.

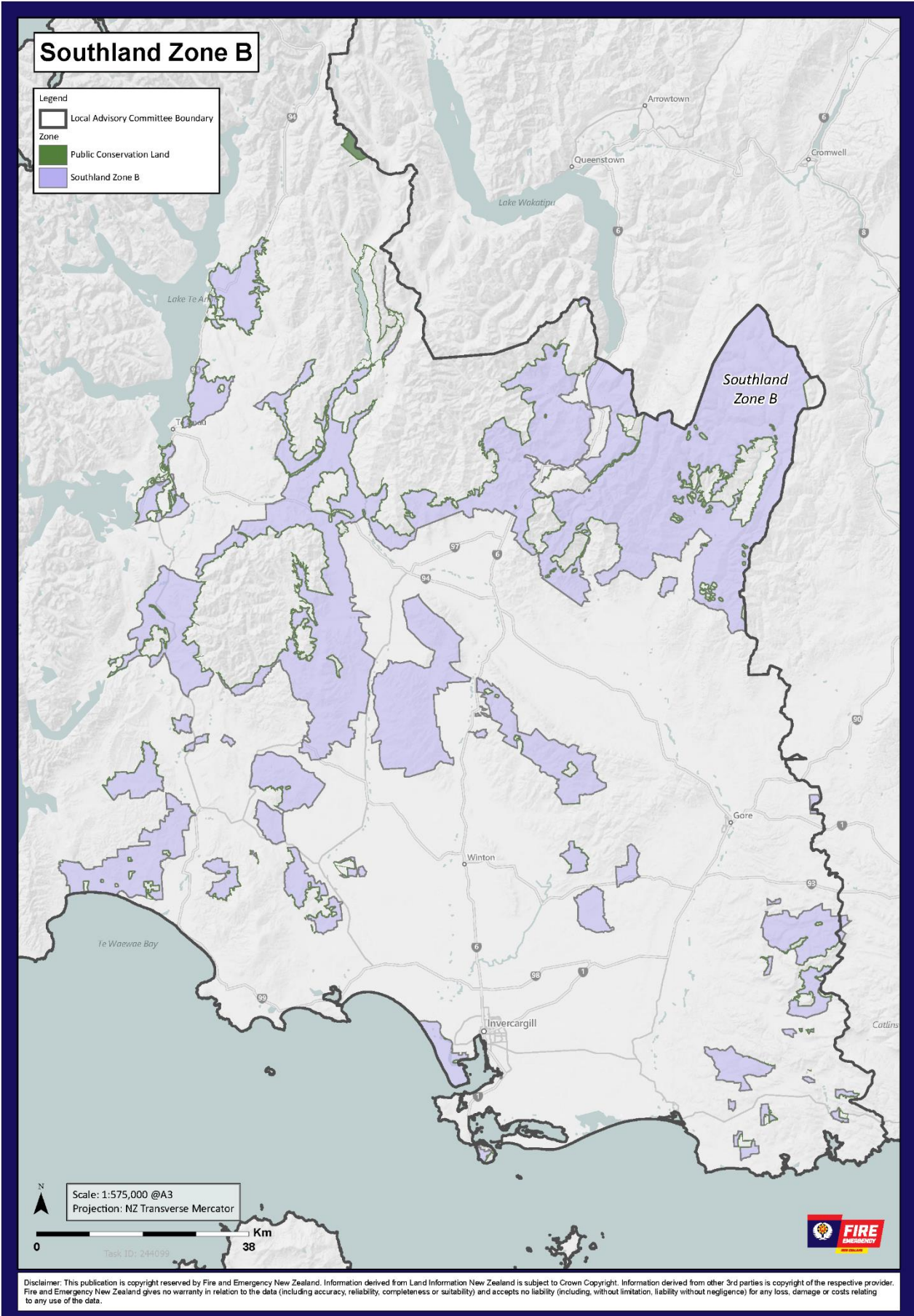
Representative remote automated weather stations

The Remote Automated Weather Stations (RAWS) used to determine whether we have reached the trigger thresholds are:

Barnhill	Milford Sound	Tapanui
Blackmount	Otama	Tisbury
Edendale	Slopedown	Tuatapere
Garston	Stewart Island/Rakiura	Wreys Bush
Glendhu	Tanner Road	Wilderness

Due to the geographical spread of the zone, a combination of stations is used to indicate an increase in danger or trend toward an area approaching higher danger to inform the requirement to move into a prohibited fire season in this zone.

Southland Zone B map



Southland Zone C – Awarua Wetlands

Geography

Southland Zone C – Awarua Wetlands, located southeast of Invercargill, consists of one of the largest remaining wetland complexes in New Zealand.

The whole land area of Southland Zone C – Awarua Wetlands is in an all-year restricted fire season. The Awarua Wetlands, with the Waituna Lagoon, is hugely important for its biological diversity and cultural values.

The terrain is mainly flat to slightly rolling. The lagoon and the surrounding wetlands was one of the first in New Zealand to be officially recognised as a wetland of international importance.

A 3,500-ha section of the wetlands, known as the Waituna Wetland Scientific Reserve, was listed as part of New Zealand’s obligations when signing the Ramsar Convention on Wetlands – an international convention that promotes the wise or sustainable use of wetlands.

The site includes four major wetland types: coastal lagoons, freshwater swamps, extensive peatlands and estuaries. Each ecosystem is unique and maintained by different ecological processes.

The Awarua Wetlands are mainly bog rather than swamp. Bogs are rain fed and are characterised by saturated, infertile peat soils.

Southland Zone C – Awarua Wetlands has a total land area of 264.7 km².

Southland Zone C – Awarua Wetlands incorporates a large section of public conservation land, administered by the Department of Conservation.

Demographics

See the demographics in the [Area overview](#).

This zone is very sparsely populated. Most of the zone is low-lying wetland with some farming on the inland fringes.

Climate/weather

This zone is subjected to fairly constant cold salt-laden winds from the south and west, with an average annual rainfall of 1,100 mm.

Because of the land contour, severe coastal conditions are restricted to a narrow zone of two to three kilometres, but on the plains around Invercargill and to the east, this zone extends up to 35 km inland.

Land cover/ land use

Grass, scrub, forest, bog and peat, as well as surrounding land which is used for agriculture.

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"> • Use of machinery – sparks • Use of fire for land management • Relevant operations affected 	☒	☒	☒

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"> • Use of machinery – sparks • Relevant operations affected • Use of firebreaks 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tiwai Aluminium Smelter <ul style="list-style-type: none"> • Protect by applying controls to surrounding areas 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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
Tiwai Aluminium Smelter 220kV transmission lines <ul style="list-style-type: none"> • Sparking during high winds • Use of auto-reclosers limited in high fire danger • Recommended vegetation mitigation practices 	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Lifeline utilities/other infrastructure

Recreational locations

Access to Waituna Lagoon or Awarua Bay (e.g. for Whitebaiting, fishing, duck shooting, etc.) may be restricted.

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 mana whenua and consider the needs of iwi when making decisions about implementing restrictions or prohibitions with our fire control powers. Relevant rūnanga 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. There are no known events of this type 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.

Special risk areas

This is a separate zone in the fire plan area due to the values at risk with the wetlands and the Tiwai Aluminium Smelter.

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

Scion historical data over a period > 20 years from six representative locations across Southland Zone B indicates Southland experiences for the below Fire Danger Classes:

Fire danger class	Frequency
Forest Fire Danger Class (FFDC)	2.5 of days of very high fire danger 1.8 of days of extreme fire danger
Grass Fire Danger Class (GFDC)	3.6 of days of very high fire danger 0.9 of days of extreme fire danger
Scrub Fire Danger Class (SFDC)	26 of days of very high fire danger 109 of days of extreme fire danger

Fire history

The known fire history for this zone includes:

Year	Fire	Cause
2005	Awarua Siding Road (1,400 ha)	Escaped burn-off
2009	Holz Road (600 ha)	Escaped burn-off
2012	Awarua Wetlands (400 ha)	Undetermined
2018	Tiwai Point (340 ha)	Power lines
2019	Tiwai Point (34 ha)	Undetermined
2022	Awarua Bay	Human behaviour

Predominant fuel type

This zone is a mixture of grasslands, scrub, plantation forest and peat bog.

Thresholds

Fire seasons

Due to the elevated risk level and significant environmental values in this land area, Southland Zone C – Awarua Wetlands is in a restricted fire season when it is not in a prohibited fire season

To determine the thresholds for a prohibited fire season, a combination of different fire weather indices has been used. This reflects the mix of different fuel types in this zone.

A change in fire season is considered when more than one value in the table below is exceeded and forecasted conditions indicate a continued trend across the climatic zones represented by the RAWs around Southland Zone C – Awarua Wetlands.

Fire Weather Indices	Fire season status
	Prohibited
Built-up Index (BUI)	>/= 40
Grass Curing (GC)	>/= 60%

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.

Fire Weather Indices	Fire season status
	Section 52 prohibition (Total fire ban)
Duff Moisture Code (DMC)	>/= 86
Wind speed	>/= 40 km/h
Initial Spread Index (ISI)	>/= 18
Fire Weather Index (FWI)	>/= 24

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.

Powerline auto-reclosers

- We are working with Powernet and Broadspectrum on protocols for Southland.

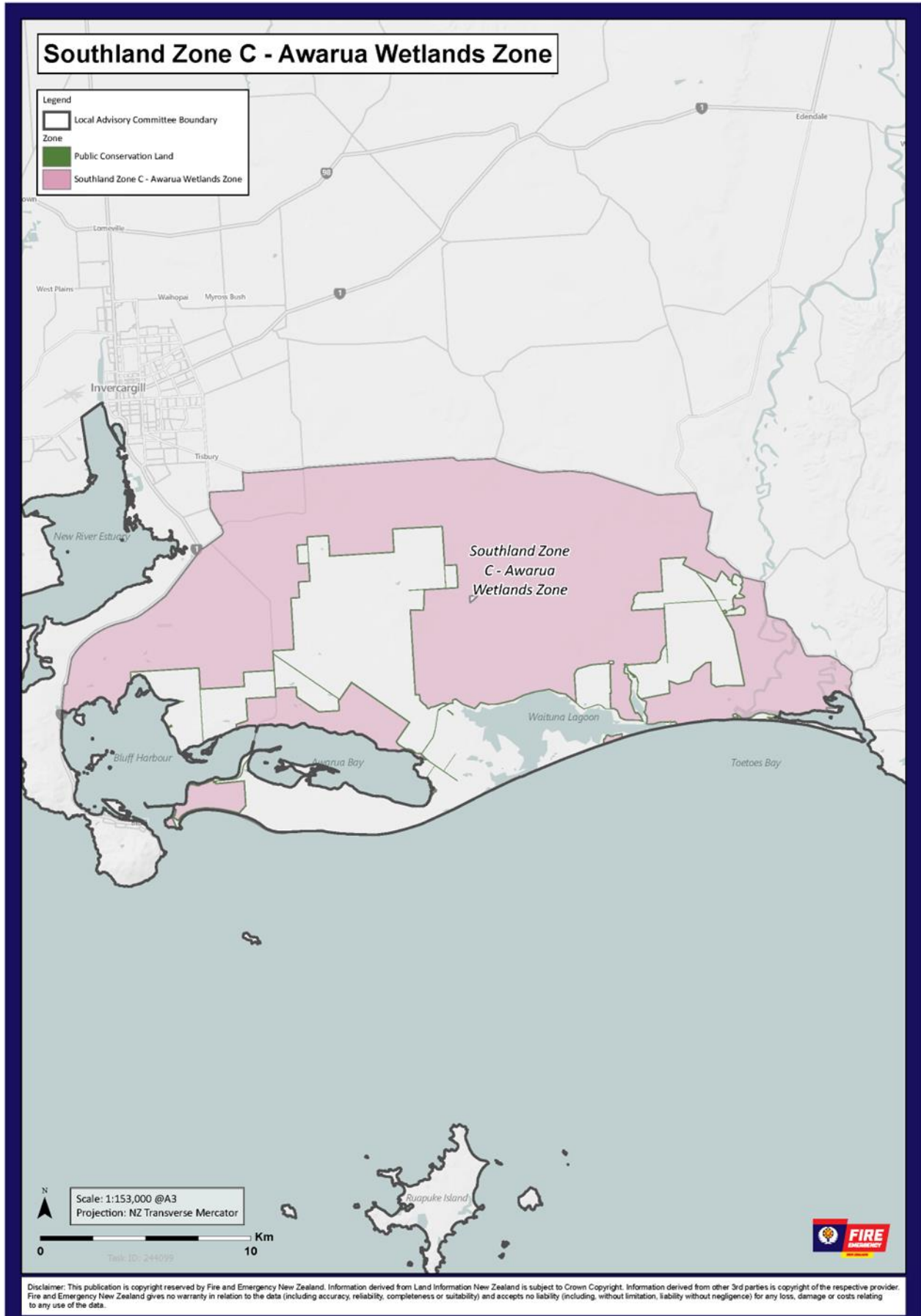
Representative remote automated weather stations

The Remote Automated Weather Stations (RAWS) used to determine whether we have reached the trigger thresholds are:

Barnhill	Milford Sound	Tapanui
Blackmount	Otama	Tisbury
Edendale	Slopedown	Tuatapere
Garston	Stewart Island/Rakiura	Wreys Bush
Glendhu	Tanner Road	Wilderness

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

Southland Zone C – Awarua Wetlands map



Public conservation land

Takitimu

Public conservation land (PCL) in Southland is extensive and accounts for 18,395.8 km² or roughly 57 percent of the total area.

Geography

The main parks are:

- Fiordland National Park
- Conservation Area – Mavora Lakes (Manawapōpōre/Hikuraki)
- Conservation Area – Snowdon Forest
- Burwood Bush (Red Tussock) Scientific Reserve
- Eyre Mountains/Taka Ra Haka Conservation Park
- Takitimu Conservation Area
- Conservation Area – Dean Forest
- Conservation Area – Rowallan Forest
- Conservation Area – Longwood Forest
- Conservation Area – Hokonui Forest
- Forest Hill Scenic Reserve
- Conservation Area – Seaward Moss
- Waituna Wetlands Scientific Reserve
- Conservation Area - Tiwai Spit
- Catlins Conservation Park
- Rakiura National Park

Climate/weather

Southland is both the most southerly and most westerly part of New Zealand and generally is the first to be influenced by weather systems moving onto the country from the west or south.

It is well exposed to these systems, although western parts of Fiordland are sheltered from the south and the area east of the western ranges is partially sheltered from the north or northwest.

The region is in the latitudes of prevailing westerlies, and areas around Foveaux Strait frequently experience strong winds, but the winds are lighter inland.

Winter is typically the least windy time of year. For many but not all areas, it is also the driest.

The western ranges, with annual falls exceeding 9,000 mm in some parts, are among the wettest places on earth. The drier eastern lowlands and hills form a complete contrast, with annual falls predominantly between 800 mm and 1,200 mm. Dry spells of more than two weeks are not common.

Temperatures are on average lower than over the rest of the country, with frosts and snowfalls occurring relatively frequently each year. On average, Southland receives less sunshine than the remainder of New Zealand.

Land cover

Grasslands and tussock, native scrub, native forest.

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
Burwood Takahē Area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Waituna Lagoon	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
West Arm Power Station	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Fire history:

The known fire history in public conservation lands zone includes:

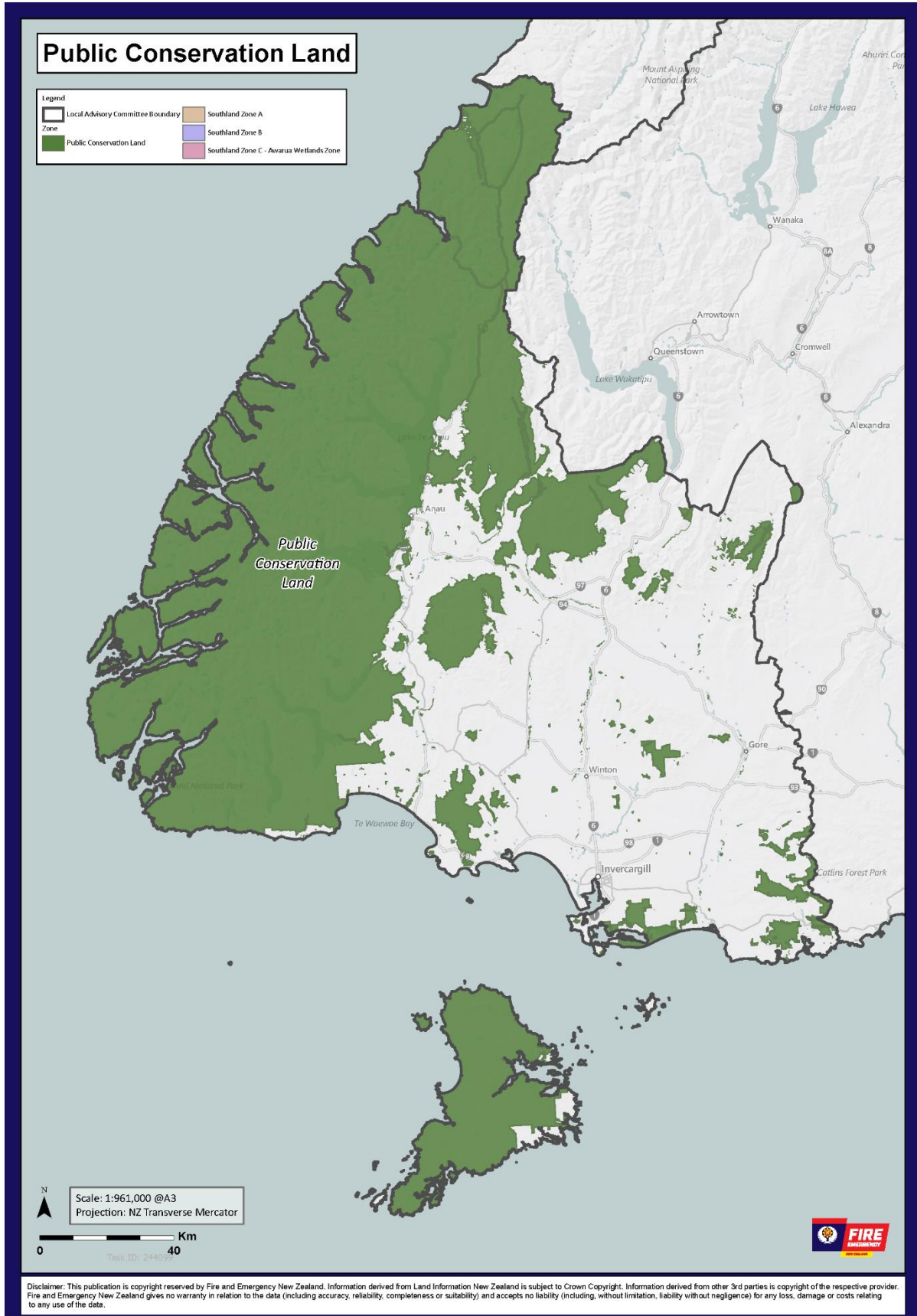
Year	Fire	Cause
2012	Doubtful Island (1 ha)	Escaped campfire
2017	Mount Titaroa (10 ha)	Suspected lightning strike

Thresholds**Restricted seasons year-round**

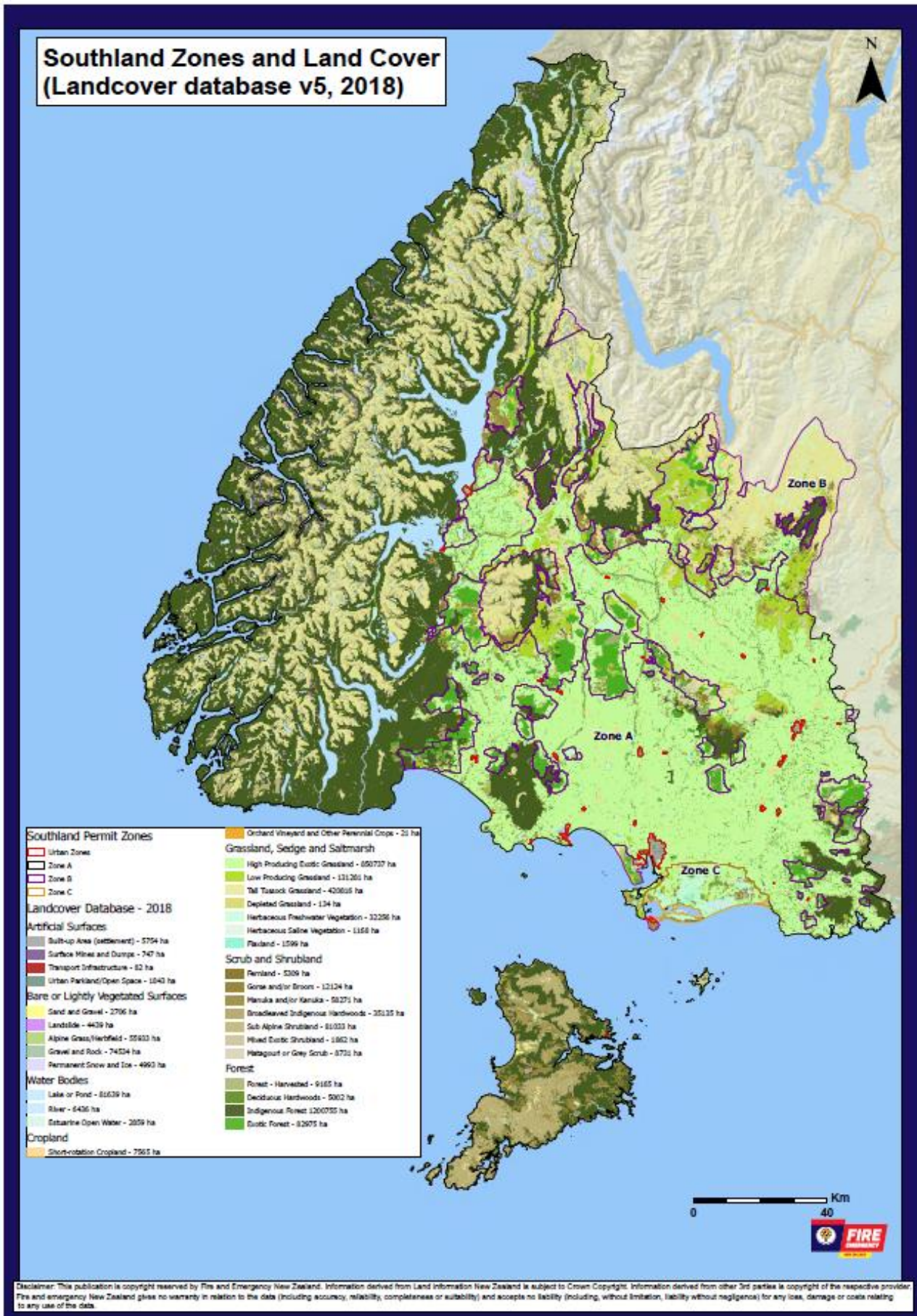
Due to the values at risk, public conservation land is kept in a restricted fire season when they are not in a prohibited fire season. Even when the surrounding zone goes to an open fire season, public conservation land will remain in a restricted fire season.

Thresholds for declaring or revoking a prohibited fire season are the same as the thresholds for the surrounding zone.

Southland public conservation land map



Appendix 1 – Southland Zones and land cover



New Zealand Defence Force

No scheduled Defence Areas

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 Southland 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.

Further information about the boundaries of the defence areas and applicable fire controls is available through www.nzdf.mil.nz/nzdf/contact-us