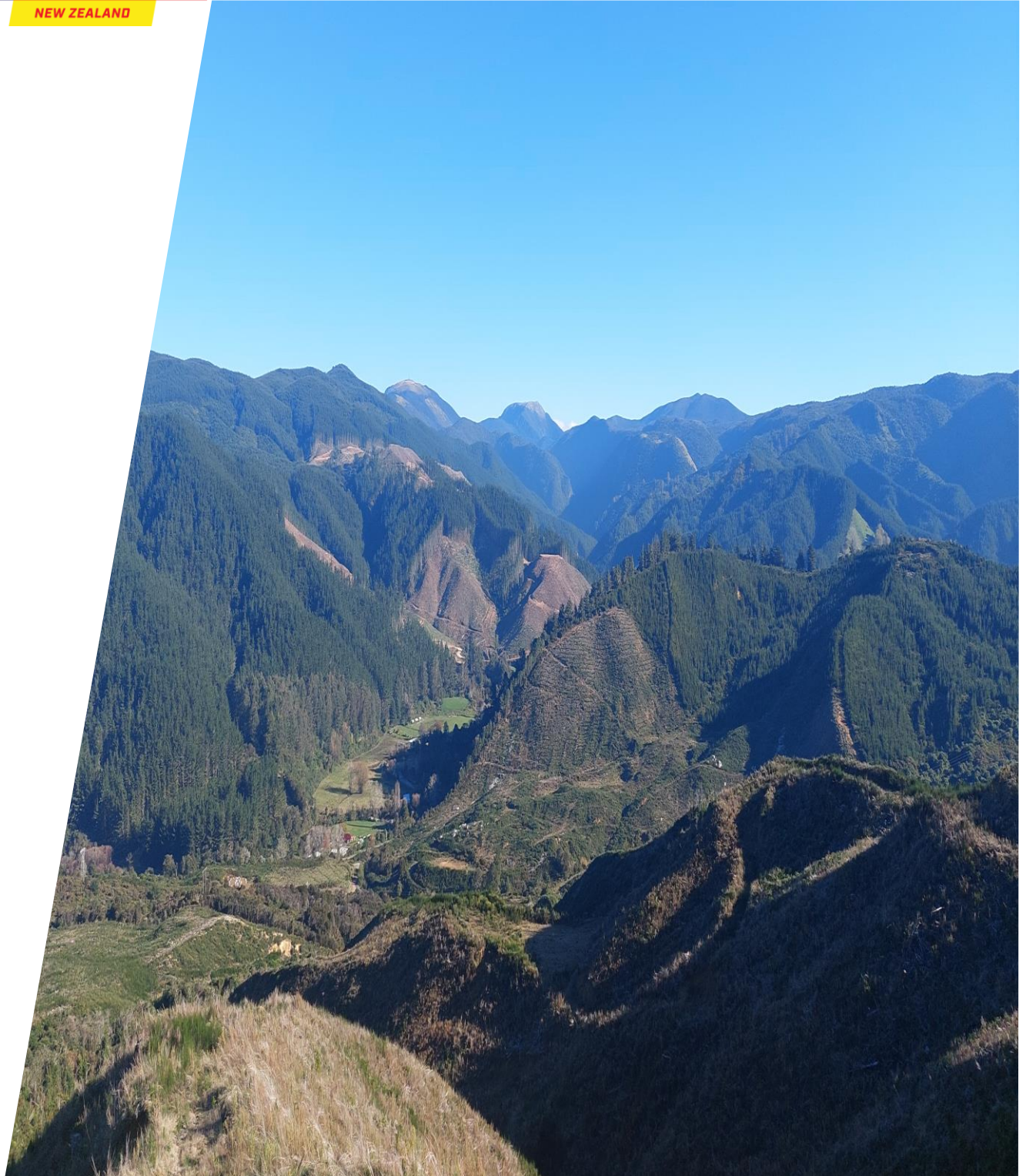


# Fire Plan for Nelson–Tasman

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 Region Manager, Te Ihu

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Full Name: Brad Mosby

Title: Region Manager, Te Ihu

Date:

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Signature

Add another block of other signatures as required



## 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

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
- work with local government around provision of water for firefighting

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

Fire and Emergency can apply a number of statutory fire control powers to reduce risk:

- Setting fire seasons

- Prohibiting fire in open air or revoking the prohibition
- Prohibiting or restricting activities or revoking the prohibition or restriction
- Fire permitting
- Control of firebreaks
- Fire hazard removal

## Our policies

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

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

## Fire 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 conditions we consider to be fire risk conditions for the purposes of exercising our fire control powers.

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



Condition	Description
Ability to respond effectively	Factors that contribute to our ability to respond to an out of control fire include: <ul style="list-style-type: none"> <li>• availability of response resources, i.e. people and equipment</li> <li>• isolation</li> <li>• accessibility issues</li> <li>• availability of water supplies.</li> </ul>
Impacts from natural hazards	Natural hazards impacts are likely to influence resource availability and the likelihood of fires.
People	The presence of people increases the risk of fire.
Impact of other events that increase the risk of the outbreak or spread of fire	Events that increase the risk of potential fire, e.g. the rupture of an oil pipeline.

## Fire seasons

Fire seasons are used 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 to manage this.

Fire seasons are applied to geographic zones based on:

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

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

### Open fire season



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

**Restricted fire season**

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

**Prohibited fire season**

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

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

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

**Open fire seasons**

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

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

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

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

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

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

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

**Restricted fire seasons**

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

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

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

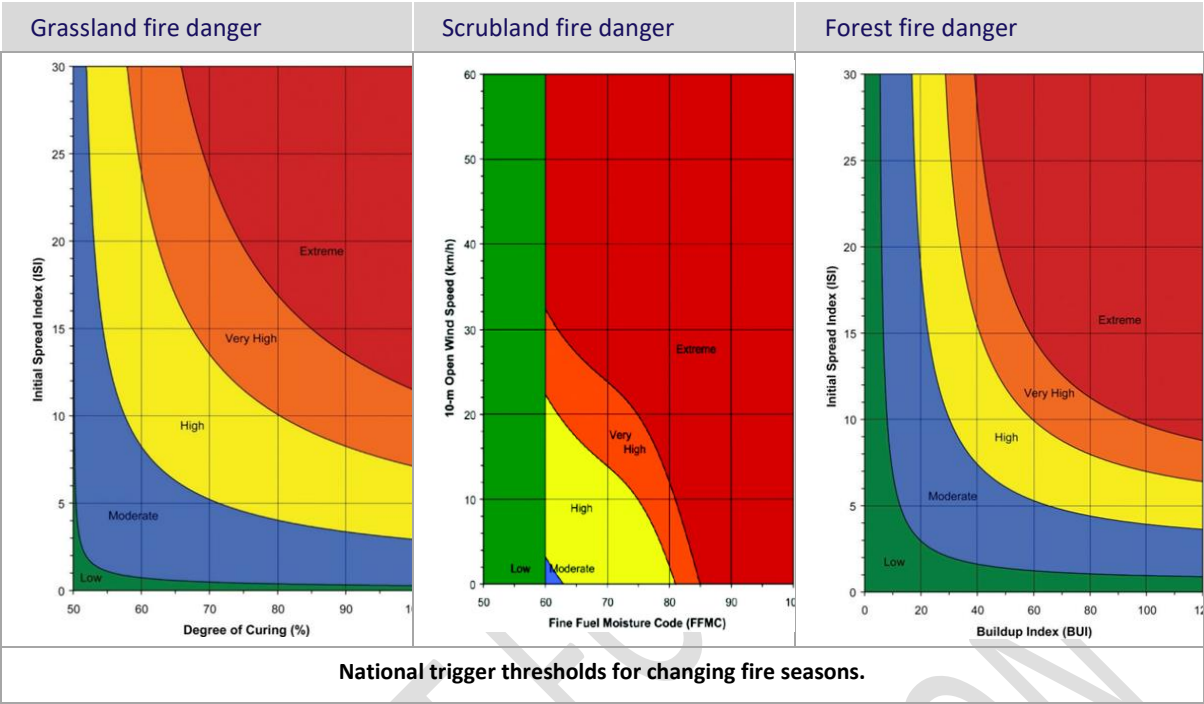
The trigger thresholds use:

- 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 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. We only use this control very rarely, in exceptional circumstances – for example:

- 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)

Sometimes fire risk conditions are so high that certain activities may cause a fire to start or spread. These activities include:

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

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

- the activity (including access to an area) may cause a fire to start or spread and adequate controls are not available
- [fire risk conditions](#) exist or are likely to exist in the area

- the prohibition or restriction is necessary or desirable for fire control purposes
- it's not possible to adequately mitigate the assessed risk.

This table defines prohibition and restriction.

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

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

Essential services are:

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

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

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

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

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

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

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

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

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

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

## Activities and risk mitigation

### Forestry operations

The NZ Forest Owners Association's [Forest fire risk management guidelines](#) (2018) have trigger point tables and fire prevention actions at different fire danger levels. Fire and Emergency supports these guidelines.

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

### Powerline auto-reclosers

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

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.

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

### Hot works

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

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

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

We will also work with Federated Farmers through the Land Management Forums to discuss the approach to fire measures, using machinery and equipment during high fire danger periods and the potential effect on local landholders.

### 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 Work (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](http://checkitsalright.nz)
- via information available by phoning 0800 658 628
- with fire danger or fire season signs – we change these to reflect season status by adding 'Fire by permit only', 'Total fire ban' or similar messaging.

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

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

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

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

## Fire permits

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

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

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

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

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

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

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

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

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

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

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

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

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

## When a permit is needed

The need for a fire permit is based on the:

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

## Fire types

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

- authorised (no permit required)
- permit required

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

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

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

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

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

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

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

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

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

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



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

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

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

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

Fire type	Description and conditions
	Find out more about the safe use of cultural cooking fires – <a href="https://fireandemergency.nz">fireandemergency.nz</a> > <a href="#">Traditional or cultural use of fire</a> .

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

### 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](https://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](https://firepermit.nz)
- over the phone – 0800 658 628. Your application is then completed in the online system on your behalf
- in person, by asking local Fire and Emergency fire permitting personnel for a fire permit

- by email or post, using the manual [fire permit application form](#). You can print and complete 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](#) and completing the **Permit Activation** form.

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

## Firebreaks

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

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

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

Fire and Emergency has powers to:

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

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

## Fire hazard removal

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

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

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

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

## Reporting fire hazards

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

To do this:

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

## Assessment of fire hazards

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

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

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

## Initial review

The assessor starts by answering four key questions:

- Is the potential hazard:
  - trees close to power lines, or
  - hoarding inside a building?
 If yes, then the hazard is referred to the relevant lines company or local council for action.
- Is the material involved likely to pose a risk to life or property through ignition without spreading? This covers fuel types that are likely to endanger adjacent or downwind properties

(either through creating significant health concerns or possible contamination damage), without spreading. This could be due to smoke toxicity or high intensity of burning.

- Is there sufficient material of appropriate type and composition to support a fire spreading to adjacent property or values? This captures the spread potential, taking into consideration the physical properties of the fuel as well as the general topography and onsite conditions. That includes continuity, size and shape, fuel load and flammability, as well as likely direction of fire travel.
- Is the burning material likely to produce enough heat to cause damage to property? Gives consideration to the fire having sufficient energy to actually cause damage to property if spread to it, or to compromise the health of property users.

### Risk assessment matrix

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

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

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

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

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

### Outcomes from the fire hazard assessment

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



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

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

## Powers of entry

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

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

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

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

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

## Fire hazard removal notice (section 65)

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

The notice:

- describes the vegetation or other thing that must be removed or destroyed, including a map if practicable identifying the specific location or extent of the vegetation or other thing
- explains the risk that Fire and Emergency reasonably considers that the vegetation or other thing presents

- specifies the actions that must be taken to mitigate the fire hazard risk, e.g. how much vegetation must be removed or destroyed.

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

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

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

## Imminent danger notice (section 68)

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

Anyone receiving the verbal notice should be able to understand:

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

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

## Regulatory compliance

### Fire and Emergency's role

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

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

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

## Contact Fire and Emergency

### In case of an emergency please call 111

### General enquiries and questions

- Recruitment/volunteering

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

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

## **Lodge a complaint**

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

## **Fire hazards**

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

## **Local contacts for this plan**

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

## 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.

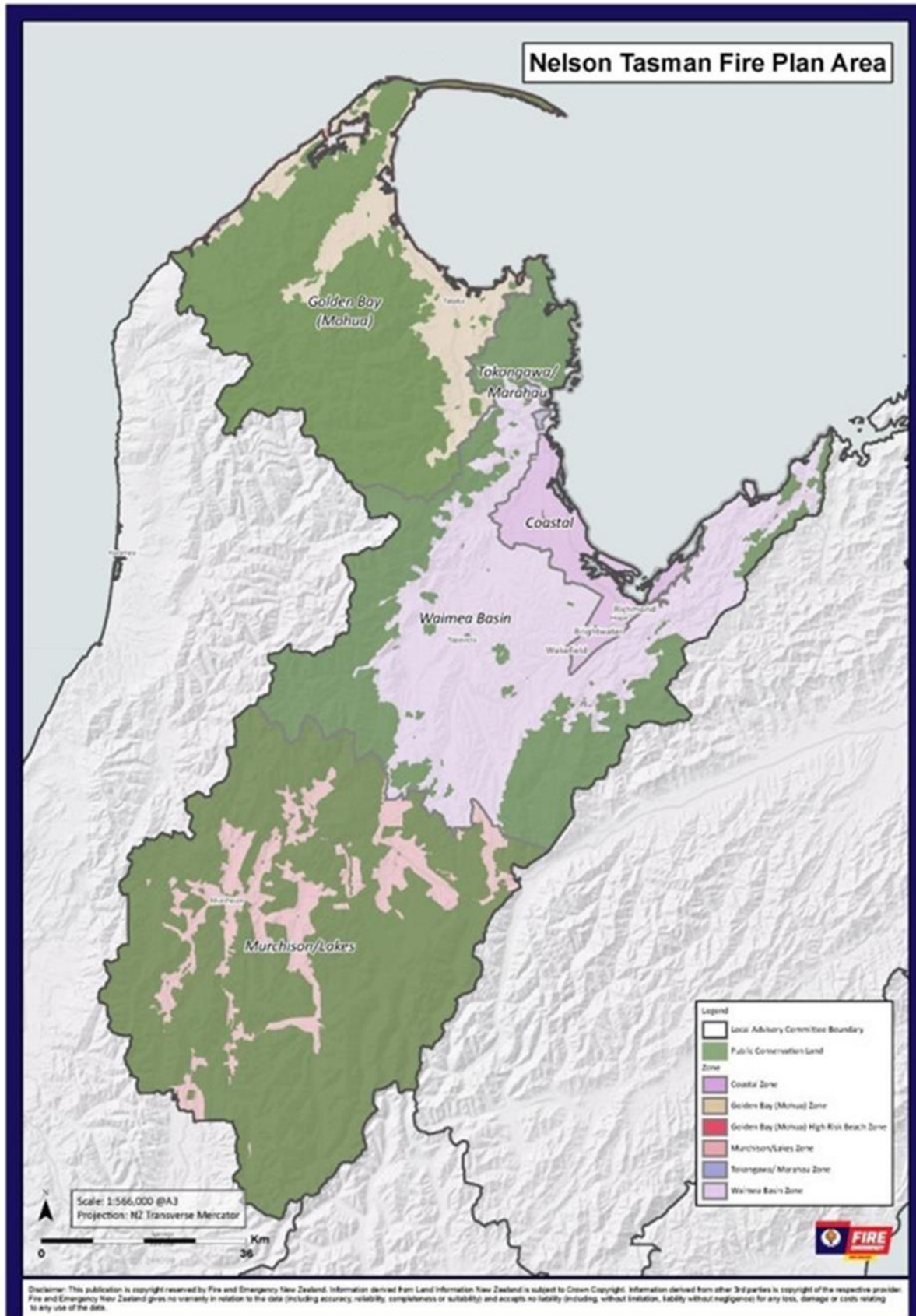
**Public conservation land (PCL)** – Land used for conservation purposes, including National Parks and forest parks. Often managed by Department of Conservation or the regional council.

**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.

## Nelson–Tasman information

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





## Area overview

### Geography

The Nelson–Tasman Fire Plan area consists of all the lands within the boundaries of the Tasman District and Nelson City Council Unitary Authorities. This includes all privately owned and publicly managed lands within the plan boundaries.

The Tasman District covers 9,786 square kilometres, with the Nelson District covering 422.19 square kilometres.

The District has three distinctive mountain ranges: Richmond Range to the east, Arthur Range, dividing Tasman Bay from Golden Bay, and the Tasman Range to the west of Golden Bay.

The Richmond and Arthur Ranges run in a southwest to northeast direction that greatly influences the westerly weather systems for the Waimea and Coastal Zones. Strong southwest and west-tending systems will strike these mountain ranges. These result in rain in the highlands and strong low relative humidity winds like the Canterbury northwest Foehn wind. When these weather events coincide with hot summer temperatures, they accelerate the drying effect on vegetation in the District and raise fire danger levels to very high to extreme.

The Tasman Range, which runs along the western boundary of Golden Bay, does not present as significant a barrier to incoming weather systems from the south or west as the range does in the Tasman Bay area. This results in increased rain in Golden Bay, with fire danger levels often lagging those in Tasman Bay.

The sea-breeze effect is felt in both bays over the warmer months, often prevailing in the early afternoons inland to approximately 10 km from the coast.

The rolling hill country of the Moutere, which contains much of the district's exotic plantations, extends south from Waimea toward St Arnaud. The hills are fairly uniform in height, ranging from 200 to 500 metres, with numerous valleys that transition from gentle sloping to steep sloping at their base. Coupled with the exposure to the dry Foehn winds and with aspects to all-day sun, this area often records a higher fire danger risk to this largely exotic forested area.

Abel Tasman National Park is New Zealand's smallest national park and sits between Tasman Bay and Golden Bay. This rolling hill country is covered in coastal indigenous forests and highly volatile native scrublands. Sitting at the northern end of the Tasman Range, it has a similar climate to Tasman Bay.

The Nelson Lakes area is considered an alpine environment, located in a wide valley and surrounded by a large mountainous environment. As this valley runs southwest to northeast, strong, low-humidity winds can quickly dry out the alpine vegetation, creating high fire risk conditions similar to inland Marlborough during the summer months.

The area has five major rivers: the Buller, Motueka, Aorere, Tākaka and Wairoa. There are three significant lakes: Rotoiti and Rotorua in the Nelson Lakes National Park, and Cobb Lake in the Upper Golden Bay area – this is an artificial reservoir.

### Demographics

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

Demographics are included in the relevant [Zone information](#).



## Zones

Because of the different fire risk conditions that exist in different parts of the fire plan area, the area is divided into a number of different zones to allow for appropriate fire control measures to be applied locally:

- [Waimea Basin](#)
- [Tokongawa/Mārahau](#)
- [Coastal](#)
- [Golden Bay \(Mohua\)](#)
- [St Arnaud](#)
- [Murchison/Lakes](#)

## 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 Nelson–Tasman local area. Any New Zealand Defence Force activities, including training activities, in other Defence Areas in the local area are subject to Fire and Emergency's fire permit requirements, though not our other fire control powers.

## Frequency of elevated fire danger

On average, the Nelson–Tasman area experiences:

- 48 days of extreme fire danger
- 63 days of very high fire danger.

The known large (+500 ha) fire history for this area includes:

Year	Fire	Cause
2019	Pigeon Valley Complex – 2,300 ha	Agricultural Discing and Arson
2009	Glenhope Fire – 600 ha	Disposal of fireplace ashes
2004	Irvines Fire – 200 ha	Suspected arson
1997	Tasman Fire – 535 ha	Suspected arson
1981	Hira – 1,972 ha	Suspected power lines

## Local contacts

Email: [Firepermit.NelsonMarlborough@fireandemergency.nz](mailto:Firepermit.NelsonMarlborough@fireandemergency.nz)

## Schedule of stakeholders

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

When we say...	What we mean is...
Consult while amending plan	You will have the opportunity for input into the fire plan before it is released for public consultation. Can include workshops and other opportunities to contribute.
Public consultation	You will have the opportunity to comment during the 4-week public consultation period.
Consult during decision making	The plan to change to a prohibited fire season or use section 52 will be discussed with you before it is implemented.
Notify of decision	You will be contacted directly when there is a change to a prohibited fire season, or when section 52 is implemented.
Notify using public channels	You will find out about the change in fire season, etc., the same way as other members of the public.

## National-level stakeholders

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

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Department of Conservation	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
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	Changing fire season to prohibited	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: 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 zone-level stakeholders

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

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Tasman District Council	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Nelson City Council	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Ngāti Tama ki Te Tau Ihu	Consulted while creating plan	Consult while amending plan	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Te Ātiawa o Te Waka-a-Māui	Consulted while creating plan	Consult while amending plan	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Ngāti Rārua	Consulted while creating plan	Consult while amending plan	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Ngāti Kōata	Consulted while creating plan	Consult while amending plan	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Ngāti Toa Rangatira	Consulted while creating plan	Consult while amending plan	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Ngāti Kuia	Consulted while creating plan	Consult while amending plan	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Ngāti Apa ki te Rā Tō	Consulted while creating plan	Consult while amending plan	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Rangitāne o Wairau	Consulted while creating plan	Consult while amending plan	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
One-Forty-One New Zealand Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Tasman Pine Forests Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
PF Olsen Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Nelson Pine Industries	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
New Forests Ltd	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Department of Conservation national park land managers and conservancy in general	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Federated Farmers of New Zealand	Public consultation	Public consultation	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Rural Contractors NZ	Public consultation	Public consultation	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making

Stakeholder	Fire plan development	Fire plan amendment	Changing fire season to prohibited	Section 52 fire prohibitions	Section 52 restrictions/prohibitions on activities
Civil Contractors NZ	Public consultation	Public consultation	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
New Zealand Apples & Pears Inc.	Public consultation	Public consultation	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Nelson Mountain Bike Club	Public consultation	Public consultation	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Federated Mountain Club	Public consultation	Public consultation	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Tourism industry	Public consultation	Public consultation	Notify of decision	Weekly status updates during prohibited seasons	Consult during decision making
Public	Public consultation	Public consultation	Notify using public channels	Notify using public channels	Notify using public channels
<b>Tokongawa/Mārahau Zone</b>					
Sandy Bay Residents and Owners Association (SAROA)	Consulted while creating plan	Consult while amending plan	Consult during decision making	Consult during decision making	Consult during decision making
Kaiteriteri Reserve Board	Consulted while creating plan	Consult while amending plan	Notify of decision	Consult during decision making	Consult during decision making

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

## Zone information

### Waimea Basin Zone

#### Geography

The Waimea Basin Zone stretches from the Mount Arthur Range in the West to the Richmond Range in the east. It is bordered on the north by the Coastal Zone and south by the Murchison/Lake Zone.

There are two National Parks in the Zone: the Kahurangi National Park from the Wharepapa/Arthur Range down to the eastern boundary and all of Abel Tasman National Park.

Topography is mainly rolling hills (Moutere Hills and Golden Downs) in the middle, with the steep mountain ranges of the Richmond Range to the east and the Wharepapa/Arthur Range to the west that extend up into alpine snow grass.

The area is bisected by the Motueka and Wai-iti Rivers, which both originate in the zone.

The two mountain ranges to the east and west of the Waimea zone greatly influence the climate. Acting as a barrier to weather systems moving up from the south and the west, the orientation of these two ranges forces weather fronts to drop rainfall in the ranges and force warm dry air downslope onto the Waimea Plains in a similar way to Canterbury's Foehn wind. This affects the Waimea Zone in producing fire weather days in the high to extreme range.

#### Demographics

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

The townships of Tapawera and part of Wakefield, south of Edward Street are in the zone. Public roading infrastructure is predominantly in valley bottoms, with ribbon rural and lifestyle properties mainly in valley bottoms or on the foothills throughout the zone.

#### Climate/Weather

The Dovedale Remote Automated Weather Station is located centrally within the Waimea Basin Zone. It is 138 m above sea level. Temperatures range throughout the year from 5.4°C in winter to 16.1°C in the summer months, with an overall average annual temperature of 10.9°C. There is moderate rainfall throughout the year in Dovedale. October is the wettest month, with an average of 136 mm. February is the driest with 79 mm averages. Annually, Dovedale receives 1,371 mm of rain.

Predominant weather is described as sunny, with sheltered areas that can receive very high intensity rain at times from the northeast and north. Predominantly very warm summers and mild winters. Annual rainfall varies from 1,000 mm in the north and up to 2,000 mm to the southern, eastern and western extremities. Given the mountainous topography surrounding the zone, future climate change indicators are that seasons may become more polarised and pronounced, with extremes of either very hot and dry summers or very wet ones being more commonplace. Dry spells of no rain



for 15 days occur on average every four months in Nelson, with the average length of dry spell being 20 days and the maximum 40 days

**Land cover/land use**

The predominant land use for the zone is production forest. These are mainly radiata pine with some Douglas-fir, and scatterings of other minor species such as eucalypt.

The production forest is all second rotation or greater. Fuel loadings vary from fresh cutover to mid rotation stands high in gorse/bracken content through to age approximately 16–18 years where canopy closure suppresses the gorse/bracken and hardwood shrubs establish. Valley bottoms and some foothills are established pastoral farms, with lifestyle blocks proliferating throughout.

Scale sheep and beef farming exists in the 88 Valley, Rosedale, and Motueka Valley areas. Hop gardens are fast becoming predominant in the valleys around Tapawera.

The extreme eastern and western edges of the zone are bordered by the Mount Richmond Forest Park and Kahurangi National Parks respectively, which are predominately beech forests with pockets of podocarp.

Within the zone is the Nelson boulder bank, a significant and unique geological and ecological area and, to the north, Cable and Delaware Bays, which are popular for picnicking and fishing.

The approximate area of the Waimea zone is 347,908 ha. Land use of this area is as follows:

- Urban – 736 ha
- Coastal – 121 ha
- Alpine – 5,876 ha
- Agriculture – 54,377 ha
- Tussock grasslands – 14,012 ha
- Scrublands – 34,916 ha
- Exotic forest – 100,172 ha
- Beech, podocarp, other native species – 133,161 ha
- Other unclassified areas – 4537 ha

**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
Carter Holt Harvey sawmill, Eves Valley <ul style="list-style-type: none"><li>• Impacted by restrictions on activities for suppliers</li></ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Goldpine mill, Golden Downs <ul style="list-style-type: none"><li>• Impacted by restrictions on activities for suppliers</li></ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

<ul style="list-style-type: none"> <li>Nelson Pine Industries MDF and LVL plant, seven sawmills and the port of Nelson are not situated in the zone but dependent on supply of log product from this zone</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Forestry includes:

- One-Forty-One New Zealand – Golden Downs, Rai Valley, Kainui, Moutere Forests
- Tasman Pine Forests Ltd - Moutere, Hira, Waimea Forests
- New Forests Ltd – Motueka Forest
- Gibbons Forestry – Riuwaka Valley forest
- Tasman District Council – Wai-iti, Kingsland, Motupiko, Tunnickliff Forests

Restrictions on forestry activities can have a significant flow-on effect.

#### Lifeline utilities/other infrastructure

Lifeline utility/other infrastructure	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Electricity transmission lines <ul style="list-style-type: none"> <li>Sparking during high winds</li> <li>Use of auto-reclosers limited in high fire danger</li> </ul> Recommended vegetation mitigation practices	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Roothing network <ul style="list-style-type: none"> <li>Sparks from vehicle malfunction, discarded cigarettes</li> <li>Spark-causing activities during road maintenance and mowing</li> <li>Access issues may require protection by applying controls to surrounding areas</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

#### Electricity transmission

Network Tasman and Nelson Electricity Ltd have distribution networks throughout the zone.

Transpower's 220 kW main high voltage lines, which feed into the Stoke Substation, travel the length of the zone from south through to Stoke.

### Roading

State Highways 6 and 60 are the only road access in and out of the district and Golden Bay. Additional fire control measures may be needed in the area to prevent communities from being isolated

### Recreational locations

Recreational locations that will be affected by Fire and Emergency exercising its fire control powers:

- The Abel Tasman National Park is the smallest National Park in the country at 23,000 ha, but the most visited, with 250,000 visitors a year.
- The Kahurangi National Park and Mount Richmond Forest Park, also partly located in the zone, contain high use tracks such as:
  - the Te Araroa trail along the Richmond Ranges
  - Wangapeka track networks in Kahurangi National Park
- The Brook Waimarama Sanctuary
- Canaan Downs
- Gilbert Lodge Scout Camps – Wairoa Gorge
- Paratai Girl Guide Camps – Lee Valley
- Mountain bike parks and tracks – around 18 competition events are held across the MTB tracks in the zone.

The table below lists all locations that may have access restricted, and the controlling agency/organisation:

Waimea Basin – recreational location	Agency
Maitai Water Reserve	Nelson City Council (NCC)
Maungatapu Track	NCC
Brook Conservation Reserve	NCC
Coppermine Trail	NCC
Brook Campground	NCC
Brook Waimārama Sanctuary (has own fire management plan)	NCC
Marsden Valley Reserve	NCC
Marsden Valley Road	NCC
Roding Water Reserve	NCC
Grampians Reserve	NCC
Sir Stanley Whitehead Reserve	NCC
Eureka Park	NCC
Tantragee Reserve (NCC Codgers)	NCC
Titoki Reserve	NCC

Waimea Basin – recreational location	Agency
Pipers Reserve	NCC
Hanby Park	NCC
Days Track (between Rocks Rd and Princes Dr)	NCC
Botanical Hill Reserve (Centre of New Zealand)	NCC
Maitai River Esplanade	NCC
Maitai Valley Road – up from footbridge at 546 Maitai Valley Rd	NCC
Maitai Valley Road – up from camp	NCC
Maitai Valley Campground	NCC
Kaiteriteri MTB park	KMBT
Abel Tasman National Park (ATNP) Inland Track	DOC
ATNP Gibbs Hill Rack	DOC
ATNP Taupo Point	DOC
ATNP Northern Circuit	DOC
ATNP Falls River	DOC
ATNP Great Walk	DOC
ATNP campgrounds	DOC
Hackett Track	DOC
Wangapeka Track	DOC
Cable Bay Track	DOC/Private
Silvan MTB	Rick Griffin
Kingsland Forest MTB	Tasman District Council (TDC)
Dellside tracks	TDC
Tunnickliff Forest - MTB	TDC
Tunnickliff Reserve (Wai-iti)	TDC
Lee Valley Reserves	TDC
Lee Valley Road from main swimming hole	TDC
Aniseed Valley Reserves	TDC
Aniseed Valley Road	TDC
Wairoa Gorge Reserves	TDC/DOC
Wairoa Gorge Road	TDC
Rocky River Road	TDC
Canaan Road	TDC
Baton Valley Road	TDC
Crown Forest Licensed (CFL) easement Hori Bay	OFO

CFL easement Mount Duppa	OFO
CFL easement Inwoods	OFO
<b>Waimea Basin – recreational location</b>	<b>Agency</b>
Great Taste Trail MTB Tunnickliffs – tunnel – Spooners Bush Rd	OFO/TDC
Kainui MTB	OFO
McLeans Recreation Area	OFO
Norriss Gully Reserve	OFO
Clark Valley Reserve	OFO
Hira Forest	TPF
CFL easement Wairoa Gorge	TPF
Back (Wild) Codgers MTB	TPF
Tantragee Saddle – Fringe Hill Road	NCC/TPF
Graham Valley Recreation Area	NZTA
The Gorge Mountain Bike Park	NMTBC

### 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.

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
Hunting <ul style="list-style-type: none"> <li>Campfires</li> <li>Access may be restricted during high fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Forest access may be restricted during high fire danger	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Special risk areas**

Special risk area	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> </ul>	☒	☒	☒
Road and track networks in forests used for illegal entry and activities	☒	☒	☒

**Known fire hazards**

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

**Frequency of elevated fire danger**

On average, this zone experiences:

- 16 days of extreme fire danger per fire season (October–May)
- 44 days of very high fire danger per fire season (October–May)

In the past seven years, this zone experienced two years of drought, unseen since 1972/73

In the 2018/19 and 2019/20 years, prohibited season were imposed, and restrictions placed on access to high-risk tracks and locations.

**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
2019	Pigeon Valley fire (2,300 ha)	Agriculture discing
2009	Atawhai fire (25 ha)	Mower strike
2009	Glenhope fire (541 ha)	Disposal of ashes
2004	Irvines fire (200 ha)	Arson

**Predominant fuel type**

The predominant fuel type in this zone is forestry.

## Thresholds

### Build-up Index

Build-up Index (BUI) is the most relevant fire weather index to monitor for where forestry is the predominant fuel type.

Build-Up Index (BUI)		
0–40	40–80	> 80
Open	Restricted (suspend fire permits @ 60 BUI)	Prohibited

The threshold for implementing a prohibited season is pushed out to 80 from the standard 60 with the practice of suspending permits at BUI > 60. This allows for forecast weather patterns to establish for the summer. This is because often in the Nelson–Tasman District, with a mean average dry spell of 20, the BUI level between 60–80 is often the range at which the dry spell will be broken.

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

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

Other local thresholds have not been set.

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

A Readiness Planning Group meets when a BUI of 80 will be reached in part of the District. The group is made up of landowners/managers, recreational groups, mountain bike park operators, local authorities, forestry contractors, forest companies, engineering providers, roading companies and farmers.

The group meetings are scheduled for each Wednesday. The group reviews the current fire indices and the weather forecast for the next 10–15 days and develops a plan for messaging, signage, and restrictions needed for high-risk public areas and work sites.

All restrictions and closures are done with collaboration and agreement of the landowner/manager.

### Access to commercial forests

Build-up Index (BUI)		
0–60	60–80	> 80
Access by forest company permit only	Signage placed at entrances	Public access prohibited Access only for work



### Access to public and private walking tracks, mountain bike tracks/parks and recreation areas

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances	Public access prohibited Concession holders with plans may be granted access

### Public road access restrictions to high-risk single-egress valleys

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances.	Consider restricting access to residents and workers only

Public areas considered for access restrictions when the Build-up Index (BUI) is greater than 100 are listed in the recreational locations for this zone.

### Forestry operations

Since 2003, forest owners and contractors have been collaborating with the Fire Authority/Fire and Emergency, producing the *Forest Industry Working Group fire prevention guidelines for forestry operations*. It has been regularly reviewed to consider new equipment, evolving work practices and lessons learned from fire events, so that it remains effective and relevant. The latest version is the result of 12 such reviews.

The guideline details the equipment requirements and activity requirements for each aspect of forest operations across six levels of fire risk. BUI and FWI are used as the trigger level.

Once the BUI climbs above 40, a daily update of fire risk level or colour for each forest zone is emailed out to a list of industry people and organisations. The update is sent each morning with the current day and following day forecast fire risk levels given.

A copy of the guideline is included as [Appendix 1](#).

### Chainsaw thinning to waste/tree felling

Chainsaw thinning to waste/tree felling restrictions are documented within the *Forest Industry Working Group fire prevention guidelines for forestry operations*. They are communicated across the forest contractors and industry inline with the procedure outlined above for forestry operations.

### Spark hazardous activities

In 2019, in consultation with a working group consisting of farmers, agricultural contractors, engineering companies, roadside mowers and local authorities, the *Nelson–Tasman fire prevention guideline for heat and spark hazardous activities/hotworks* were developed. It is currently on its eighth iteration. The guideline uses a matrix of grass curing (GC) and fine fuel moisture code (FFMC) to determine the risk of ignition. This risk is expressed

in one of four colours: green, yellow, orange or red. For each risk level, the response equipment requirements are listed for various activities, including:

- roadside and pasture/gorse/scrub mowing
- welding/grinding/gas cutting
- use of crop harvesting machine, including crop trimming
- mechanical pasture/scrub development/discing/ploughing/cultivating
- using tracked and digging machines on dead grass/vegetation (includes civilcontracting and quarrying)
- use of electric fences
- use of chainsaws, chippers or steel scrub-cutters.

The activity requirements for each activity type are given for each colour of fire risk level.

Each day, the forecast risk levels for each zone in the District are emailed out to a list of people and organisations. This list is different from the Forestry Operations email list.

A copy of the guideline is attached in [Appendix 2](#).

#### **Powerline auto-reclosers**

In 2015, the *Powerline auto-recloser guideline* was developed in consultation with local power network distributors. The guideline is based on the risk level being calculated on a matrix of GC and FPMC, with a wind component. It results in a three-colour risk level rating that indicates whether the auto-recloser should be switched off.

A copy of the guideline is in [Appendix 3](#)

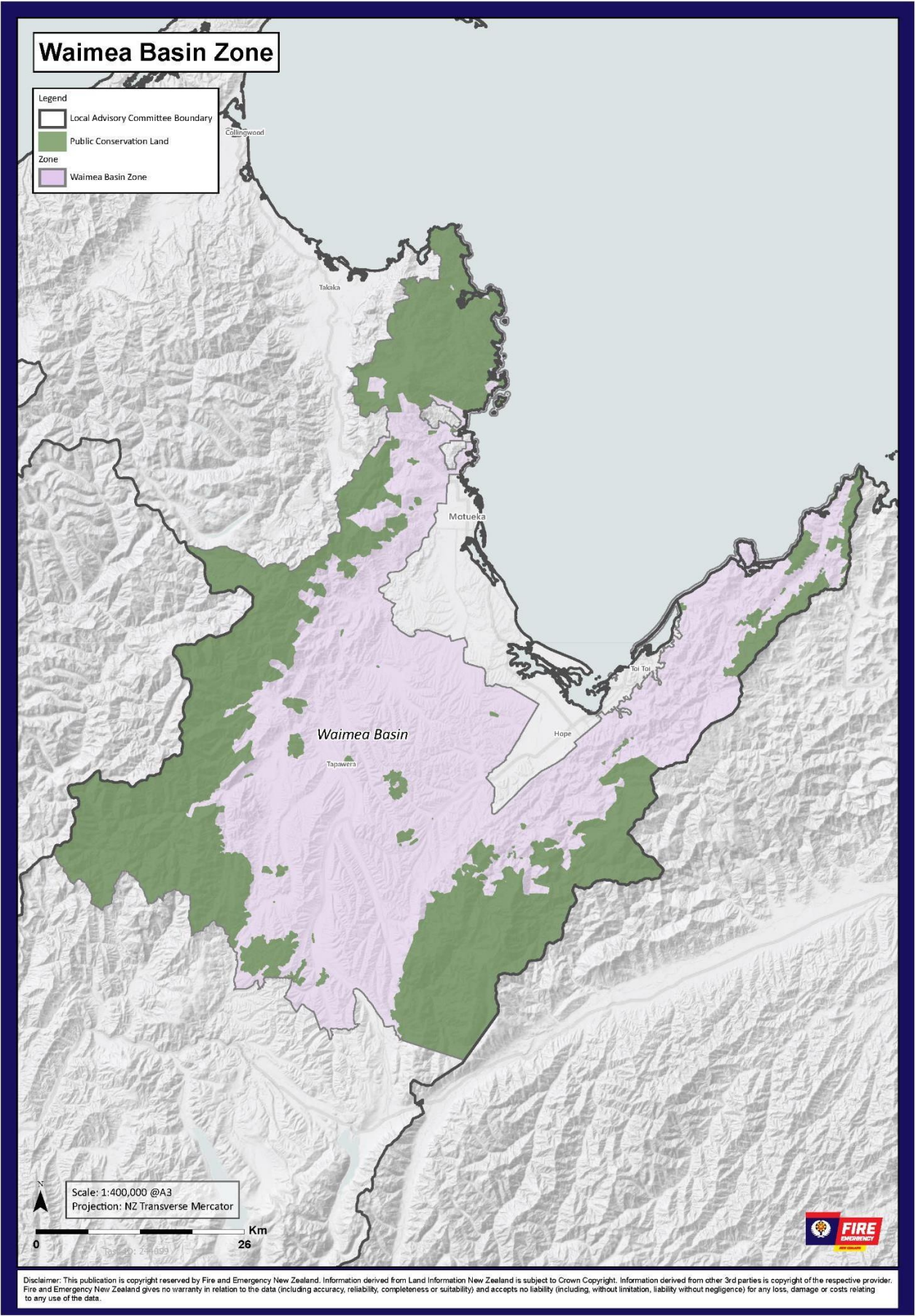
#### **Representative remote automated weather stations**

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

- Dovedale – in Moutere Forest, corner of Eder Road and Supplejack Valley – altitude 369 m above mean seal level (amsl)
- Aniseed Valley – Above twin bridges reserve in the Aniseed Valley - alt. 97 m amsl
- Big Pokororo – On farmland above the start of the Big Pokororo Valley Road – alt. 571 m amsl
- Western Boundary – in Golden Downs Forest on Western Boundary Road – alt. 655 m amsl
- Hira – in Hira Forest on Isolation Spur Road – alt 337 m amsl

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

Waimea Basin Zone map



## Tokongawa/Mārahau Zone

<b>Geography</b>	<p>The Tokongawa/Mārahau Zone consists of the peri-urban settlement of Tokongawa/Split Apple Rock, south to Ngaio Bay and bordered to the west by the Sandy Bay/Kaiteriteri Road. The Otuwhero Inlet and Estuary, Kaiteriteri and Mārahau production forests are also included in the zone. The zone consists of an estuary/tidal inlet and sand spit through to rolling and then very steep and incised separation point granite hill country.</p>
<b>Demographics</b>	<p>Demographics help us understand how our communities use fire, and the type of support they might need and how we communicate with them.</p> <p>The settlement of Tokongawa/Split Apple Rock is a subdivision of upmarket properties sited for their views across Tasman Bay and down the Abel Tasman coastline. Ownership is a mix of permanent residents, offshore owners who reside for part of the year (summer predominantly) and local holiday homes. Many of the permanent residents are retirees, some with mobility issues.</p>
<b>Climate/weather</b>	<p>Mārahau is 6 m above sea level. Temperatures range throughout the year from 7.4°C in winter to 16.3°C in the summer months, with an overall average annual temperature of 11.9°C. There is moderate rainfall throughout the year in Mārahau. June is the wettest month, with an average of 158 mm, and February is the driest with 90 mm averages. Annually, Mārahau receives 1,581 mm of rain.</p> <p>Predominant weather is sunny, with sheltered areas that can receive very high intensity rain at times from the northeast and north. Summers are very warm, and winters are mild. Given the mountainous topography to the west of the zone, future climate change indicators are that seasons may become more polarised and pronounced, with extremes of either very hot and dry summers or very wet ones being more commonplace.</p>
<b>Land cover/ land use</b>	<p>By area, the predominant land use for the zone is the production forests of Mārahau and Kaiteriteri. These are <i>Pinus radiata</i> forests in their second and third rotation. Fuel loadings vary from fresh cutover to mid-rotation stands high in gorse/bracken content through to aged approximately 16–18 years, where canopy closure suppresses the gorse/bracken and hardwood shrubs establish. As a result of several devastating high-intensity rainfall events in the last 10 years and the resulting public backlash, areas of Mārahau Forest and Kaiteriteri Forest are being retired from <i>Pinus radiata</i> production and are being actively planted in mānuka for the apiary industry.</p> <p>The peri-urban area of Tokongawa/Split Apple is predominantly covered in mānuka scrub. At the southern end of the zone, on the undeveloped peri-urban areas, there are significant coverings of wilding pines amongst the mānuka, leading to extremely high and volatile scrub fuel loadings. During the period 2013 to 2016 there was a resident funded program to remove wilding pines from the peri-urban developed area. The trees were felled to waste, so have increased ground fuel loadings through until they rot.</p> <p>Tasman District Council resource management plan rules state that the area is a significant natural landscape; therefore, removing native vegetation beyond the building footprint is prohibited</p>



The area of the Tokongawa/Mārahau Zone is 1,741ha. Of this:

- Coastal – 5 ha
- Agriculture – 59 ha
- Scrubland – 222 ha
- Exotic forest – 1,285 ha
- Beech, podocarp, and other native species – 77 ha
- Other unclassified area (estuary) – 95 ha

### 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
New Forests Ltd – Mārahau and Kaiteriteri Forest cutting rights <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Use of firebreaks</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ngāti Tama and Ngāti Rarua – Owners of Mārahau and Kaiteriteri Forest land and stands under seven years old <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Use of firebreaks</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Kaiteriteri Reserve Board – Owners of the eastern face of Kaiteriteri Forest, which overlooks Kaiteriteri Bay and owners of Kaiteriteri Mountain Bike Park	<input 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
Network Tasman – Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in high fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Recreational locations

- Split Apple Rock
- Toko Ngawa Point
- Kaiteriteri Mountain Bike Park and Forest

There are no known events with professional pyrotechnic displays held in the zone.

**Cultural and recreational activities and events**

- Tokongawa Drive may have access restricted if the Build-up Index (BUI) is greater than 100.

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 of a restriction on activities can have a significant economic impact.

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

Cultural and recreational activities and events	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Cultural cooking, e.g. hāngī	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fireworks <ul style="list-style-type: none"> <li>• Use may be prohibited during high fire danger</li> <li>• Pyrotechnics managed by other approvals</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Beaches <ul style="list-style-type: none"> <li>• Campfires</li> <li>• Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Mountain biking, horse-riding, backcountry running <ul style="list-style-type: none"> <li>• Access may be restricted during high fire danger</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Special risk areas**

Special risk area	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
The Tokongawa/Split Apple peri-urban area <ul style="list-style-type: none"> <li>Very high visitor numbers over summer on steep land and frequent coastal winds on a narrow road network surrounded by very high loadings of volatile vegetation</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public conservation land <ul style="list-style-type: none"> <li>Ecological values at risk</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" 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**

On average, this zone experiences:

- 33 days of extreme fire danger per fire season (October–May)
- 31 days of very high fire danger per fire season (October–May)

In the past five years, this zone experienced two years of drought, unseen since 1972/73. In the 2018/19 and 2019/20 years, prohibited seasons were imposed and restrictions placed on access to high-risk tracks and locations.

**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
2009	Moss Road fire – 5 ha	Machinery fire
2015	Otuwhero inlet fire – 0.5 ha	Tree across power lines

**Predominant fuel type**

The predominant fuel type in this zone is scrub.

**Thresholds****Permanent prohibited fire season**

Scrub fuels are very reactive to relative humidity and wind, with extreme fire behaviour possible even during winter after several fine days. Due to the volatile nature of scrub fuels and the life and property at risk in the zone, a consultation process with Tokongawa/Mārahau property owners occurred in 2013.

As a result, the Tokongawa/Mārahau Zone was created, and a permanent prohibited fire season put in place.



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

A Readiness Planning Group meets when a BUI of 80 will be reached in part of the District. The group is made up of landowners/managers, recreational groups, mountain bike park operators, local authorities, forestry contractors, forest companies, engineering providers, roading companies and farmers.

The group meetings are scheduled for each Wednesday. The group reviews the current fire indices and the weather forecast for the next 10 to 15 days and develops a plan for messaging, signage, and restrictions needed for high-risk public areas and work sites.

All restrictions and closures are done with collaboration and agreement of the landowner/manager.

#### Access to commercial forests

Build-up Index (BUI)		
0–60	60–80	> 80
Access by forest company permit only	Signage placed at entrances	Public access prohibited Access only for work

#### Access to public and private walking tracks, mountain bike tracks/parks and recreation areas

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances	Public access prohibited Concession holders with plans may be granted access

#### Public road access restrictions to high-risk single-egress valleys

Build-up Index (BUI)		
0–60	80–100	>1 00
No restriction	Signage placed at entrances.	Consider restricting access to residents and workers only

Public areas considered for access restrictions when the Build-up Index (BUI) is greater than 100 are listed in the recreational locations for this zone.

#### Forestry operations

Since 2003, forest owners and contractors have been collaborating with the Fire Authority/Fire and Emergency, producing the *Forest Industry Working Group fire prevention guidelines for forestry operations*. It has been regularly reviewed to consider new equipment, evolving work practices and lessons learned from fire events, so that it remains effective and relevant. The latest version is the result of 12 such reviews.

The guideline details the equipment requirements and activity requirements for each aspect of forest operations across six levels of fire risk. BUI and FWI are used as the trigger level.

Once the BUI climbs above 40, a daily update of fire risk level or colour for each forest zone is emailed out to a list of industry people and organisations. The update is sent each morning with the current day and the following day forecast fire risk levels given.

A copy of the guideline is included as [Appendix 1](#).

### **Chainsaw thinning to waste/tree felling**

Chainsaw thinning to waste/tree felling restrictions are documented within the *Forest Industry Working Group fire prevention guidelines for forestry operations*. They are communicated across the forest contractors and industry in line with the procedure outlined above for forestry operations.

### **Spark hazardous activities**

In 2019, in consultation with a working group consisting of farmers, agricultural contractors, engineering companies, roadside mowers and local authorities, the *Nelson–Tasman fire prevention guideline for heat and spark hazardous activities/hotworks* was developed. It is currently on its eighth iteration. The guideline uses a matrix of GC and FPMC to determine the risk of ignition. This is expressed in one of four colours: green, yellow, orange or red. For each risk level, the response equipment requirements are listed for various activities including:

- roadside and pasture/gorse/scrub mowing
- welding/grinding/gas cutting
- use of crop harvesting machines, including for crop trimming
- mechanical pasture/scrub development/discing/ploughing/cultivating
- using tracked and digging machines on grass dead/vegetation (includes civil contracting and quarrying)
- use of electric fences
- use of chainsaws, chippers or steel scrub-cutters.

The activity requirements for each activity type are given for each colour of fire risk level.

Each day, the forecast risk levels for each zone in the District are emailed out to a list of people and organisations. This list is different from the Forestry Operations email list.

A copy of the guideline is attached in [Appendix 2](#).

### **Powerline auto-reclosers**

In 2015, the *Powerline auto-recloser guideline* was developed in consultation with local power network distributors. The guideline is based on the risk level being calculated on a matrix of GC and FPMC, with a wind component. It results in a three-colour risk level rating that indicates whether the auto-recloser should be switched off.

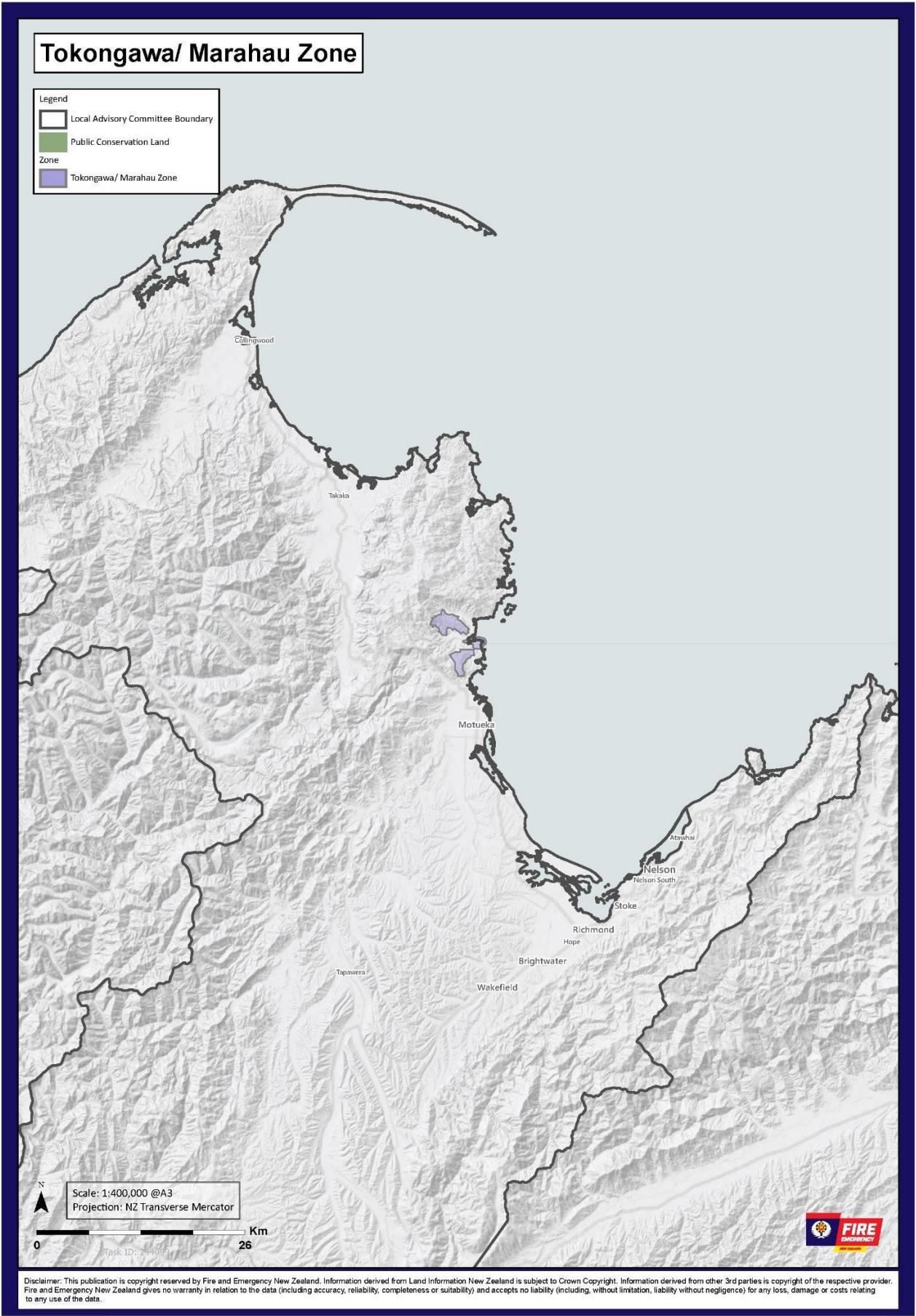
A copy of the guideline in [Appendix 3](#).

**Representative  
remote automated  
weather stations**

As this zone is in a permanent prohibited fire season, RAWS are not used to determine trigger thresholds in this zone.

DRAFT FOR  
CONSULTATION

Tokongawa/Mārahau Zone map



## Coastal Zone

### Geography

The Coastal Zone consists of the City of Nelson and the high-density housing areas of Richmond, Brightwater, Mapua, Motueka and part of the townships of Wakefield and Upper Moutere.

Topography is predominantly flat, with the hills of Tāhunanui/Nelson city and along the Upper Moutere and Tasman areas being the main elevated topography.

### Demographics

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

Nelson City and the townships of Richmond, Brightwater, Wakefield, Mapua and Motueka consist of medium- to high-density residential areas that fall under air discharge rules in the Nelson City and Tasman District Council Resource Management Plans.

This effectively bans outdoor fires in the higher-density areas and restricts burning to the months outside of June to August in the lower-density/peri-urban areas.

### Climate/weather

Nelson is 9 m above sea level. Temperatures range throughout the year from 6.1°C in winter to 16.1°C in the summer months, with an overall average annual temperature of 11.2°C. There is moderate rainfall throughout the year in Nelson. October is the wettest month, with an average of 135 mm. January is the driest, with an 80 mm average. Annually, Nelson receives 1,396 mm of rain.

Motueka, located across Tasman Bay from Nelson and within the Coastal Zone, received a slightly increased annual rainfall of 1,581 mm, with annual temperatures the same as Nelson.

Predominant weather is described as sunny. Nelson often holds the official title of New Zealand's sunniest town. Summer rainfall mainly comes from the northeast and north. Summers are very warm and winters mild. Given the mountainous topography to the west of the zone, future climate change indicators are that seasons may become more polarised and pronounced, with extremes of either very hot and dry summers or very wet ones being more commonplace.

### Land cover/ land use

Outside of the residential areas of the city and towns, the area consists of a large amount of lifestyle blocks that are pastoral, horticulture or a combination.

Commercial land use operations are predominately pip fruit and vineyards, with smaller areas of hops and dairying. On the Waimea Plains, there are several significant market garden operations.

Apart from pockets of scrub around the fringes of Nelson City, several remnant *Pinus radiata* stands in the Tasman area and the commercial forest and bio-solid operation on the 150 ha Rabbit Island (Moturoa), the majority ground cover is grass, either for grazing or beneath the horticulture crops.

This zone also consists of the popular recreational beaches from Motueka to Tāhunanui.

The total area of the Coastal Zone is 38,846 ha. Of this:

- Urban (Nelson, Stoke, Richmond and Motueka) – 4,268 ha
- Coastal – 151 ha
- Agriculture (beef, sheep, dairy, horticulture) – 22,916 ha
- Scrubland – 908 ha
- Exotic forests – 6,956 ha
- Beech and indigenous – 430 ha
- Other unclassified area – 3,217 ha

## 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
Pip fruit industry <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Use of fire for landmanagement</li> <li>• Relevant operations affected</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Nelson Pine Industries MDF andLVL manufacturing site <ul style="list-style-type: none"> <li>• Impacted by restrictions onactivities for suppliers</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with localfire risk and rules</li> <li>• Access to locations may be restricted, so will impact business</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Pip fruit industry where fire is used as a significant tool to control diseased trees and dispose of annual pruning's and trees removed for crop replacement



**Lifeline utility/  
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
Network Tasman – Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in high fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Roothing network <ul style="list-style-type: none"> <li>• Sparks from vehicle malfunction, discarded cigarettes</li> <li>• Spark-causing activities during road maintenance and mowing</li> </ul> State Highways 6 and 60 only road access in and out of the District and Golden Bay.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nelson Airport <ul style="list-style-type: none"> <li>• Requirement under CAA rules for notification of and permission for burns in flight path</li> <li>• Protected by own controls on use of fire and other activities in vicinity</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Port Nelson Protect by applying controls to surrounding areas	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Recreational locations**

- Great Taste Trail Mountain bike track
- Rabbit Island (Moturoa) forest area
- Beaches in the zone
- There are many other recreational tracks, parks and locations that may be affected by access restrictions during high 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.



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
Annual Nelson Speedway celebration <ul style="list-style-type: none"> <li>Car fires or sparks from malfunctioning vehicles</li> <li>People without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The Great Taste cycle trail <ul style="list-style-type: none"> <li>Access to locations may be restricted, so will impact business</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Professional pyrotechnic events <ul style="list-style-type: none"> <li>Use may be prohibited during high fire danger</li> <li>Pyrotechnics managed by other approvals</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Blessing of the Fleet – Nelson Harbour <ul style="list-style-type: none"> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Rabbit Island (Moturoa) Great Taste Trail MTB <ul style="list-style-type: none"> <li>Access may be restricted during high fire danger</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The Great Taste cycle trail travels the length of the zone from Nelson to Riuwaka. Any restrictions on access to the track impacts concession holders that provide guided and non-guided tours of the region.

### 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
The peri-urban fringe of Nelson City and Richmond township	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Public Conservation Land	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

The peri-urban fringe of Nelson City and Richmond township, although not in this zone, are directly adjacent to it. This urban/rural interface zone has

been identified in previous planning exercises as a very high-risk area, both from the risk of fire ignition and a consequence basis.

#### Known fire hazards

- Large population of people who may access a range of local areas
- Very high visitor numbers over summer accessing local areas and undertaking tourist activities e.g. campfires

#### Frequency of elevated fire danger

On average, this zone experiences:

- 48 days of extreme fire danger per fire season (October–May)
- 64 days of very high fire danger per fire season (October–May)

In the past seven years, this zone experienced two years of drought, unseen since 1972/73. In the 2018/19 and 2019/20 years, prohibited seasons were imposed and restrictions placed on access to high-risk tracks and locations.

#### Fire history

Year	Fire	Cause
1998	Tasman fire – 500 ha	Arson

#### Predominant fuel type

The fuel type in this zone is predominantly grasslands with some scrub

#### Thresholds

##### Restricted season year round

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

Grass curing (GC%)		
0–60	60–80	> 80
Open	Restricted (suspend permits)	Prohibited

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

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

Other local thresholds have not been set.

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

A Readiness Planning Group meets when a BUI of 80 will be reached in part of the district. The group is made up of landowners/managers, recreational groups, mountain bike park operators, local authorities, forestry contractors, forest companies, engineering providers, roading companies and farmers.

The group meetings are scheduled for each Wednesday. The group reviews the current fire indices and the weather forecast for the next 10–15 days and develops a plan for messaging, signage, and restrictions needed for high-risk public areas and work sites.

All restrictions and closures are done with collaboration and agreement of the landowner/manager.

**Access to commercial forests**

Build-up Index (BUI)		
0–60	60–80	> 80
Access by forest company permit only	Signage placed at entrances	Public access prohibited Access only for work

**Access to public and private walking tracks, mountain bike tracks/parks and recreation areas**

Build-up Index (BUI)		
0–60	80–100	>100
No restriction	Signage placed at entrances	Public access prohibited Concession holders with plans may be granted access

**Public road access restrictions to high-risk single-egress valleys**

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances	Consider restricting access to residents and workers only

Public areas considered for access restrictions when the Build-up Index (BUI) is greater than 100 are listed in the recreational locations for this zone.

**Forestry operations**

Since 2003, forest owners and contractors have been collaborating with the Fire Authority/Fire and Emergency, producing the *Forest Industry Working Group fire prevention guidelines for forestry operations*. It has been regularly reviewed to consider new equipment, evolving work practices, and lessons learned from fire events, so that it remains effective and relevant. The latest version is the result of 12 such reviews.

The guideline details the equipment requirements and activity requirements for each aspect of forest operations across six levels of fire risk. BUI and FWI are used as the trigger levels.

Once the BUI climbs above 40, a daily update of fire risk level or colour for each forest zone is emailed out to a list of industry people and organisations. The update is sent each morning with the current day and the following day forecast fire risk levels given.

A copy of the guideline is included as [Appendix 1](#).

**Chainsaw thinning to waste/tree felling**

Chainsaw thinning to waste/tree felling restrictions are documented

within the *Forest Industry Working Group fire prevention guidelines for forestry operations*. They are communicated across the forest contractors and industry inline with the procedure outlined above for forestry operations.

### Spark hazardous activities

In 2019, in consultation with a working group consisting of farmers, agricultural contractors, engineering companies, roadside mowers and local authorities, the *Nelson–Tasman fire prevention guideline for heat and spark hazardous activities/hotworks* was developed. It is currently on its eighth iteration. The guideline uses a matrix of GC and FFMC to determine the risk of ignition, which is expressed in one of four colours: green, yellow, orange or red. For each risk level, the response equipment requirements are listed for various activities, including:

- roadside and pasture/gorse/scrub mowing
- welding/grinding/gas cutting
- use of crop harvesting machines, including for crop trimming
- mechanical pasture/scrub development/discing/ploughing/cultivating
- using tracked and digging machines on grass/vegetation (includes civil contracting and quarrying)
- use of electric fences
- using chainsaws, chippers or steel scrub-cutters.

The activity requirements for each activity type are given for each coloured fire risk level.

Each day, the forecast risk levels for each zone in the District are emailed out to a list of people and organisations. This list is different from the Forestry Operations email list.

A copy of the guideline is attached in [Appendix 2](#).

### Powerline auto-reclosers

In 2015, the *Powerline auto-recloser guideline* was developed in consultation with local power network distributors. The guideline is based on the risk level being calculated on a matrix of GC and FFMC, with a wind component. It results in a three-colour risk level rating that indicates whether the auto-recloser should be switched off.

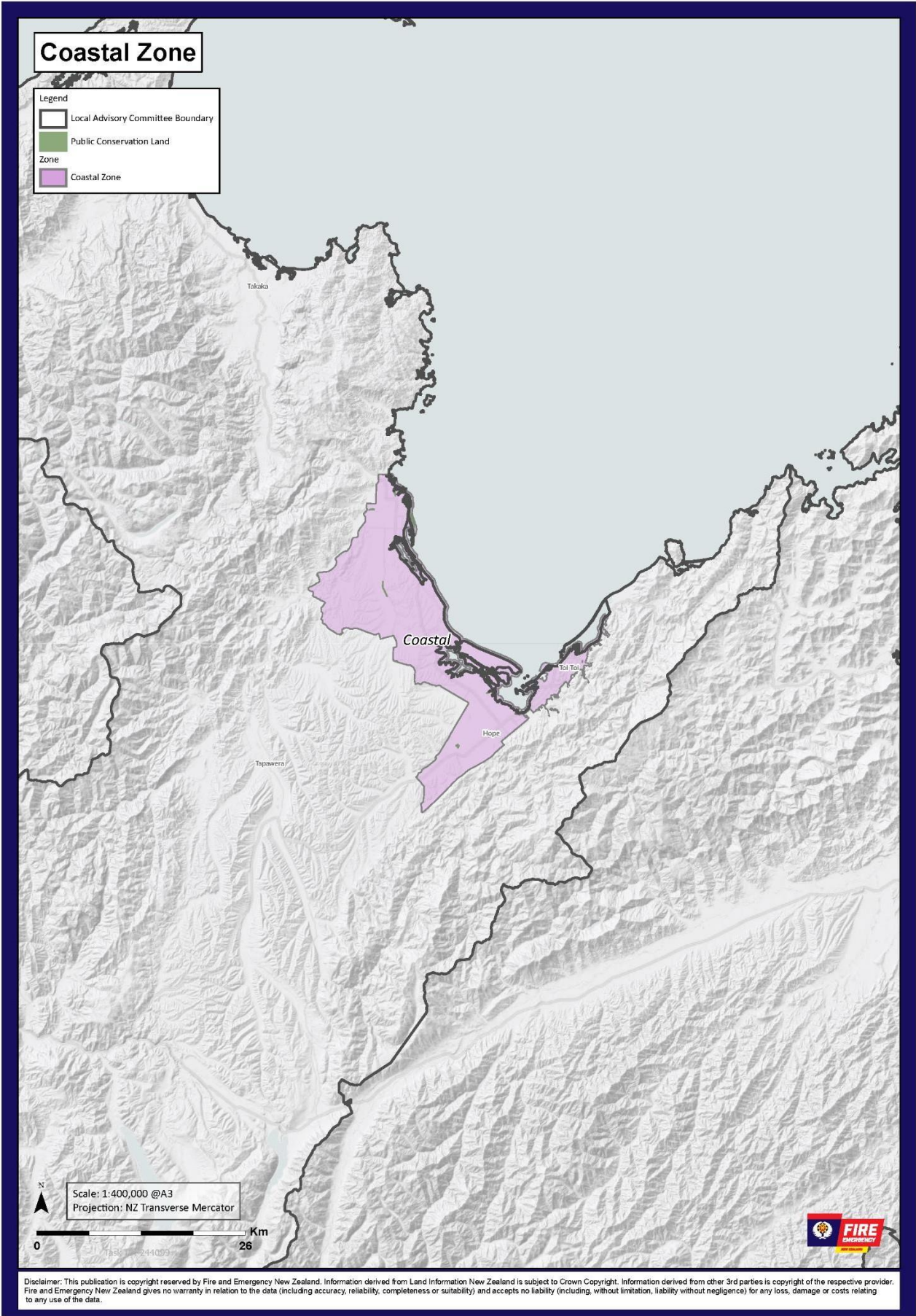
A copy of the guideline in [Appendix 3](#).

### Representative remote automated weather stations

The Remote Automated Weather Station (RAWS) used to determine whether we have reached the trigger thresholds is Nelson AWS (MetService), sited at the southwestern corner of Nelson Airport at alt. 3 m amsl.

We will consider the forecast for this location when declaring or revoking a fire season.

Coastal Zone map





## Golden Bay (Mohua) Zone

### Geography

The Golden Bay (Mohua) Zone consists of the urban townships of Tākaka, Collingwood and the medium-density housing locations of Pōhara, Ligar and Tata Bays on the eastern side of the bay/zone and Pākawau on the west edge of the bay/zone.

The Tākaka and Aorere Valleys form the predominant valley systems of the zone with wide flat valley floors. These areas along with the terraces around the coastline of the bay form much of the flat topography in the zone. The remainder of the zone consists of steep to very steep coastal hills and foothills leading up to the mountains of Kahurangi National Park.

The fire permit areas of Golden Bay East, Golden Bay West, Pōhara Beach, Ligar Bay Beach, Tata Bay Beach, Patons Rock Beach, Tukurua Beach, Parapara Bay, Collingwood Beach, Pākawau Beach and the Golden Bay High-Risk Beaches make up the Golden Bay Zone.

### Demographics

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

Tākaka and Collingwood townships have the largest population of permanent residents. In total, around 5,000 people live permanently in the bay. The coastal bays and their settlements are very popular with summer holidaymakers, with most dwellings in this area being holiday homes.

The campgrounds of Pākawau, Collingwood, Tukurua and Pōhara are very popular in the summer with people from outside of the District. Over summer, the population of Golden Bay can more than triple to over 15,000 people

### Climate/weather

Tākaka is 12 m above sea level. Temperatures range throughout the year from 5.7°C in winter to 15.5°C in the summer months, with an overall average annual temperature of 10.7°C. There is significant rainfall throughout the year in Tākaka with June being the wettest at an average of 188 mm, with the month of February being the driest with 106 mm averages. Annually, Tākaka receives 1,885 mm of rain.

Predominant weather is described as warm. Annual rainfall varies considerably across the zone: Bainham, inland from Collingwood in the Aorere Valley, averages around 4,000 mm. Dry spells of no rain for 15 days occur on average every six months in Golden Bay, with the average length of dry spell being 19 days and the maximum 35 days.

### Land cover/land use

By far the largest area of land cover in the zone is the indigenous forest of Kahurangi National Park in the western and southern area. The steep foothills of Tākaka and Aorere Valleys and along the coastal strip between Tākaka and Collingwood are covered in regenerating scrublands, with gorse and mānuka/kānuka being prevalent.

The Tākaka and Aorere Valleys and the terraces along the coastline are used predominantly for pastoral farming, with a mix of irrigated and unirrigated dairying being the majority use. Commercial forestry is on a small scale, with scattered stands often associated with farms and small holdings.

There has been some increase in the last two years of farmers wanting to use fire on their rougher country to establish trees for carbon offsets.

The approximate area of the Golden Bay Zone is 234,287 ha. Land use of this area is as follows:

- Urban (Tākaka and Collingwood) – 250 ha
- Coastal (inlets, lagoons) – 814 ha
- Alpine – 2,257 ha
- Agriculture (beef, sheep and dairy) – 32,912 ha
- Tussock grassland – 13,236 ha
- Exotic forest (commercial plantations and woodlots) – 3,617 ha
- Beech, podocarp, other native species – 146,876
- Scrubland – 28,855 ha
- Other unclassified area – 5,470 ha

### 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, small farm forestry <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Use of firebreaks</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tourism and recreation <ul style="list-style-type: none"> <li>• People unfamiliar with local fire risk and rules</li> <li>• Access to locations may be restricted, affecting business</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

### Lifeline utilities/other infrastructure

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



Hydro schemes in Cobb Valley and Pupu Valley <ul style="list-style-type: none"> <li>Protect by applying controls to surrounding areas</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Road network <ul style="list-style-type: none"> <li>Sparks from vehicle malfunction, discarded cigarettes</li> <li>Spark causing activities during road maintenance and mowing</li> <li>State Highway 60 only road access in and out of Golden Bay. Additional controls may be needed.</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

SH 60 has proved problematic several times over the years, with significant damage occurring during rainstorms. The only other access to Golden Bay if SH 60 is closed is by air or sea.

- Great Walk Heaphy Track
- Cobb Valley – tramping/walking
- Abel Tasman National Park is next to the north-eastern edge of the zone

Locations that are considered for restricted access if build-up index exceeds 100 are:

- Milnethorpe Quay road
- Milnethorpe Park
- Paynes Ford
- Grove Track
- Abel Tasman National Park Rameka Track
- Abel Tasman National Park Northern Great Walk
- Gibbs Hill track
- Blue Hole
- Aorere Goldfields Track – tramping/walking (DOC)
- Puponga Farm Park Headlands access and tracks (DOC)

#### 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.

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
Mountain biking – the Rameka Enduro is an annual event <ul style="list-style-type: none"> <li>Access may be restricted during high fire danger</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Blue Hole Festival <ul style="list-style-type: none"> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" 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"> <li>Use may be prohibited during high fire danger</li> <li>Pyrotechnics managed by other approvals</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Beaches <ul style="list-style-type: none"> <li>Campfires</li> <li>People without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Special risk areas**

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

On average, this zone experiences:

- 22 days of extreme fire danger per fire season (October–May)
- 15 days of very high fire danger per fire season (October–May).

In the past seven years, this zone experienced two years of drought, unseen since 1972/73. In the 2018/19 and 2019/20 years, prohibited seasons were imposed and restrictions placed on access to high-risk tracks and locations.

**Fire history**

The known fire history for this zone includes:

Year	Fire	Cause
2009	Motupipi sandspit fire – 8.0 ha	Flare

### Predominant fuel type

The fuel type in this zone is predominantly indigenous forest with scrub-covered foothills and valley floor grasslands.

## Thresholds

### Build-up Index

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

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

Grass curing (GC%)	Build-up Index (BUI)		
(%)	0–40	40–80	> 80
0–70	Open	Restricted (suspend permits @ 60 BUI)	Prohibited
70–80	Restricted (suspend permits @ 60 BUI)	Restricted (suspend permits @ 60 BUI)	Prohibited
> 80	Prohibited	Prohibited	Prohibited

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

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

Other local thresholds have not been set.

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

A Readiness Planning Group meets when a BUI of 80 will be reached in part of the District. The group is made up of landowners/managers, recreational groups, mountain bike park operators, local authorities, forestry contractors, forest companies, engineering providers, roading companies and farmers.

The group meetings are scheduled for each Wednesday. The group reviews the current fire indices and the weather forecast for the next 10–15 days and develops a plan for messaging, signage, and restrictions needed for high-risk public areas and work sites.

All restrictions and closures are done with collaboration and agreement of the landowner/manager.

### Access to commercial forests

Build-up Index (BUI)		
0–60	60–80	> 100
Access by forest company permit only	Signage placed at entrances	Public access prohibited Access only for work

### Access to public and private walking tracks, mountain bike tracks/parks and recreation areas

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances	Public access prohibited Concession holders with plans may be granted access

### Public road access restrictions to high-risk single-egress valleys

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances	Consider restricting access to residents and workers only

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### Forestry operations

Since 2003 forest owners and contractors have been collaborating with the Fire Authority/Fire and Emergency, producing the *Forest Industry working group fire prevention guidelines for forestry operations*. It has been regularly reviewed to consider new equipment, evolving work practices and lessons learned from fire events, so that it remains effective and relevant. The latest version is the result of 12 such reviews.

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### Chainsaw thinning to waste/tree felling

Chainsaw thinning to waste/tree felling restrictions are documented within the *Forest Industry Working Group fire prevention guidelines for forestry operations*. They are communicated across the forest contractors and industry inline with the procedure outlined above for forestry operations.

### Spark hazardous activities

In 2019, in consultation with a working group consisting of farmers, agricultural contractors, engineering companies, roadside mowers and local authorities, the *Nelson–Tasman fire prevention guideline for heat and spark hazardous activities/hotworks* was developed. It is currently on its eighth iteration. The

guideline uses a matrix of GC and FFMC to determine the risk of ignition, which is expressed in one of four colours: green, yellow, orange or red. For each risk level, the response equipment requirements are listed for various activities, including:

- roadside and pasture/gorse/scrub mowing
- welding/grinding/gas cutting
- using a crop harvesting machines, including for crop trimming
- mechanical pasture/scrub development/discing/ploughing/cultivating
- using tracked and digging machines on grass dead/vegetation (includes civil contracting and quarrying)
- using electric fences
- using chainsaws, chippers or steel scrub-cutters.

The activity requirements for each activity type are given for each coloured fire risk level.

Each day, the forecast risk levels for each zone in the District are emailed out to a list of people and organisations. This list is different from the Forestry Operations email list.

A copy of the guideline is attached in [Appendix 2](#).

#### **Powerline auto-reclosers**

In 2015, the *Powerline auto-recloser guideline* was developed in consultation with local power network distributors. The guideline is based on the risk level being calculated on a matrix of GC and FFMC, with a wind component, and results in a three-colour risk level rating that indicates whether the auto-reclose should be switched off.

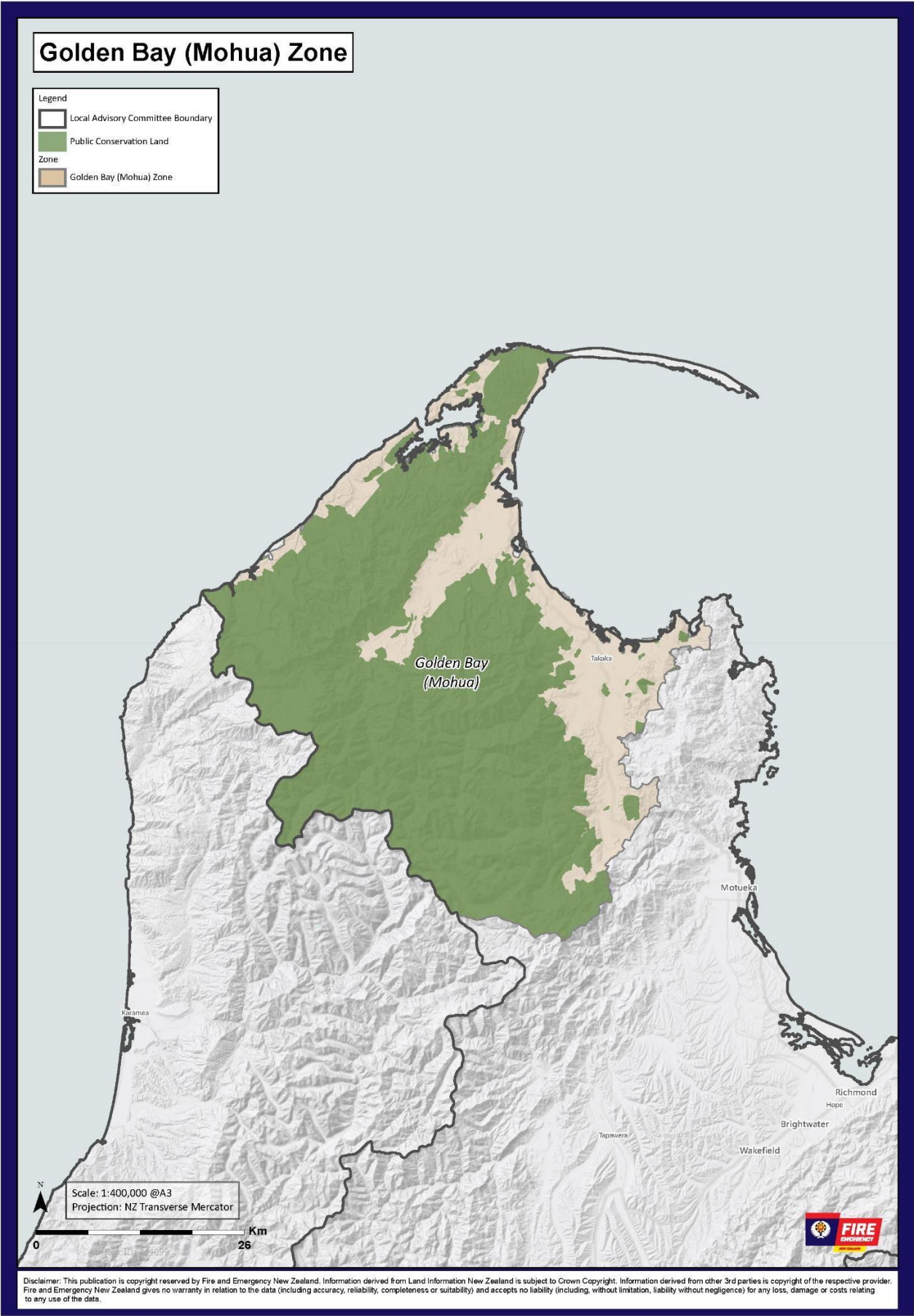
A copy of the guideline in [Appendix 3](#).

#### **Representative remote automated weather stations**

The Remote Automated Weather Station (RAWS) used to determine whether we have reached the trigger thresholds is at Tākaka, sited at the northeastern edge of the Tākaka Aerodrome at alt. 5 m amsl.

We will consider the forecast for this location when declaring or revoking a fire season.

Golden Bay (Mohua) Zone map





## St Arnaud

### Geography

The St Arnaud township and surrounding mānuka/kānuka scrublands have been identified as a high-fire-risk area. This zone covers the urban township of St Arnaud, as well as the areas to the west of the township known as Black Hill, Buller Campground, Jetty Campground and the Teetotal Campsite.

The area is predominately flat except for Black Hill, with an elevation of 640 m above sea level (ASL) in the township and campsites to 746 m ASL at Black Hill.

### Demographics

At Fire and Emergency New Zealand, we have an in-depth knowledge of the demographics for each of the communities we serve. These demographics help us to understand the type of support each of our communities might need and how we communicate with them.

We use this knowledge in all aspects of our work, including our delivery of the 4Rs of emergency management and for fire control measures, such as declaring the beginning and end of fire seasons, prohibiting and restricting the use fire, and issuing fire permits.

St Arnaud township is situated just outside the northern boundary of the Nelson Lakes National Park. The township has a permanent population of 110, with much of the population employed in the tourism sector and with the Department of Conservation. The township and area surrounding the township contain a significant number of holiday homes that remain uninhabited for much of the year. During the holiday periods, the population can increase four-fold.

### Climate/weather

Temperatures range throughout the year from 1.3°C average in July through to 12.8°C in January. Extremes can be experienced, with snow blanketing the area with sub-zero temperatures at times during the winter to elevated temperatures in the low thirties with accompanying low relative humidity conditions during the summer months. Rainfall averages range from 106 mm in July through to the wettest month of October, bringing an average of 185 mm. The overall average rainfall for St Arnaud is 1,518 mm.

### Land cover/land use

The zone is made up of the urban township of St Arnaud and the DOC camping sites. These areas are surrounded by heavy stands of mānuka/kānuka scrublands, often within only metres of residential structures. There are some areas of native beech forest around the lake front and areas of grasslands on the northern side of SH 63.

The total area of this zone is only 471 ha, of which 86 ha can be considered the urban township of St Arnaud.

### 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
One-Forty-One Forests around the Teetotal area bordering this zone	<input type="checkbox"/>	<input 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
Network Tasman – Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in high fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roading network <ul style="list-style-type: none"> <li>• Sparks from vehicle malfunction, discarded cigarettes</li> <li>• Spark-causing activities during road maintenance and mowing</li> <li>• State Highways 6 and 63 only road access in and out of the District and St Arnaud</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Recreational locations**

- Teetotal mountain bike tracks to the northwest of St Arnaud township – mountain biking and forest access
- Lake Rotoiti
- Rotoiti Lodge Outdoor Education Centre
- Stopover for Te Araroa Trail hikers
- Buller and Jetty Camping Grounds
- Teetotal Campsite

**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.

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
Hiking/tramping <ul style="list-style-type: none"> <li>Access may be restricted during high fire danger</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lake beaches <ul style="list-style-type: none"> <li>Campfires</li> <li>Increase in people without knowledge of fire risk or rules</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Boating – Classic & Wooden Boat Show <ul style="list-style-type: none"> <li>Woodfire-powered boilers</li> <li>Access may be restricted during high fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tourism <ul style="list-style-type: none"> <li>Increase in people without knowledge of fire risk or rules</li> <li>Access may be restricted during high fire danger</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

#### Known fire hazards

Significant areas of highly volatile vegetation fuels (mānuka/kānuka) in and around populated areas. Teetotal Campsite is open to transient freedom campers, who pose a significant risk if they use open fires in this volatile area.

#### Frequency of elevated fire danger

On average, this zone experiences:

- 1 day of extreme fire danger per fire season (October–May)
- 18 days of very high fire danger per fire season (October–May)

In the past seven years, this zone experienced two years of drought, unseen since 1972/73. In the 2018/19 and 2019/20 years, prohibited seasons were imposed and restrictions placed on access to high-risk tracks and locations.

#### Fire history

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

Year	Fire	Cause
2015	Speargrass Road (1 ha)	Controlled burn out of control

#### Predominant fuel type

The fuel type in this zone is coastal, predominantly mānuka/kānuka scrublands with some areas of indigenous forest and valley floor grasslands.

## Thresholds

GC%	Build-up Index (BUI)		
%	0–40	40–60	> 60
0–60	Restricted	Restricted	Prohibited
60–80	Restricted	Prohibited	Prohibited
> 80	Prohibited	Prohibited	Prohibited

Scrub fuels are very reactive to relative humidity and wind, with extreme fire behaviour possible even during winter after several fine days. Due to the volatility of scrub fuels and the life and property at risk in the zone, a permanent restricted/prohibited fire season is in place.

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

A Readiness Planning Group meets when a BUI of 80 will be reached in part of the District. The group is made up of landowners/managers, recreational groups, mountain bike park operators, local authorities, forestry contractors, forest companies, engineering providers, roading companies and farmers.

The group meetings are scheduled for each Wednesday. The group reviews the current fire indices and the weather forecast for the next 10–15 days and develops a plan for messaging, signage and restrictions needed for high-risk public areas and work sites.

All restrictions and closures are done with collaboration and agreement of the landowner/manager.

### Access to commercial forests

Build-up Index (BUI)		
0–60	60–80	> 80
Access by forest company permit only	Signage placed at entrances	Public access prohibited Access only for work

### Access to public and private walking tracks, mountain bike tracks/parks and recreation areas

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances	Public access prohibited Concession holders with plans may be granted access

### Public road access restrictions to high-risk, single-egress valleys

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances	Consider restricting access to residents and workers only

Public areas considered for access restrictions when the Build-up Index (BUI) is greater than 100 are listed in the recreational locations for this zone.

### Forestry operations

Since 2003, forest owners and contractors have been collaborating with the Fire Authority/Fire and Emergency, producing the *Forest Industry Working Group fire prevention guidelines for forestry operations*. It has been regularly reviewed to consider new equipment, evolving work practices and lessons learned from fire events, so that it remains effective and relevant. The latest version is the result of 12 such reviews.

The guideline details the equipment requirements and activity requirements for each aspect of forest operations across six levels of fire risk. BUI and FWI are used as the trigger level.

Once the BUI climbs above 40, a daily update of fire risk level or colour for each forest zone is emailed out to industry people and organisations. The update is sent each morning with the current day and the following day forecast fire risk levels given.

A copy of the guideline is included as [Appendix 1](#).

### Chainsaw thinning to waste/tree felling

Chainsaw thinning to waste/tree felling restrictions are documented in the *Forest Industry Working Group fire prevention guidelines for forestry operations*. They are communicated across the forest contractors and industry inline with the procedure outlined above for forestry operations.

### Spark hazardous activities

In 2019, in consultation with a working group consisting of farmers, agricultural contractors, engineering companies, roadside mowers and local authorities, the *Nelson–Tasman fire prevention guideline for heat and spark hazardous activities/hotworks* was developed. It is currently on its eighth iteration. The guideline uses a matrix of GC and FPMC to determine the risk of ignition, which is expressed in one of four colours: green, yellow, orange or red. For each risk level, the response equipment requirements are listed for various activities including:

- roadside and pasture/gorse/scrub mowing
- welding/grinding/gas-cutting
- using crop harvesting machines, including for crop trimming
- mechanical pasture/scrub development/discing/ploughing/cultivating

- 
- using tracked and digging machines on grass dead/vegetation (includes civilcontracting and quarrying)
  - using electric fences
  - using chainsaws, chippers or steel scrub cutters.

Each day, the forecast risk levels for each zone in the District are emailed out to a list of people and organisations. This list is different from the Forestry Operations email list.

A copy of the guideline is attached in [Appendix 2](#).

#### **Powerline auto-reclosers**

In 2015, the *Powerline Auto-recloser Guideline* was developed in consultation with local power network distributors. The guideline is based on the risk level being calculated on a matrix of GC and FFMC, with a wind component. It results in a three-colour risk level rating that indicates whether the auto-recloser should be switched off.

A copy of the guideline in [Appendix 3](#).

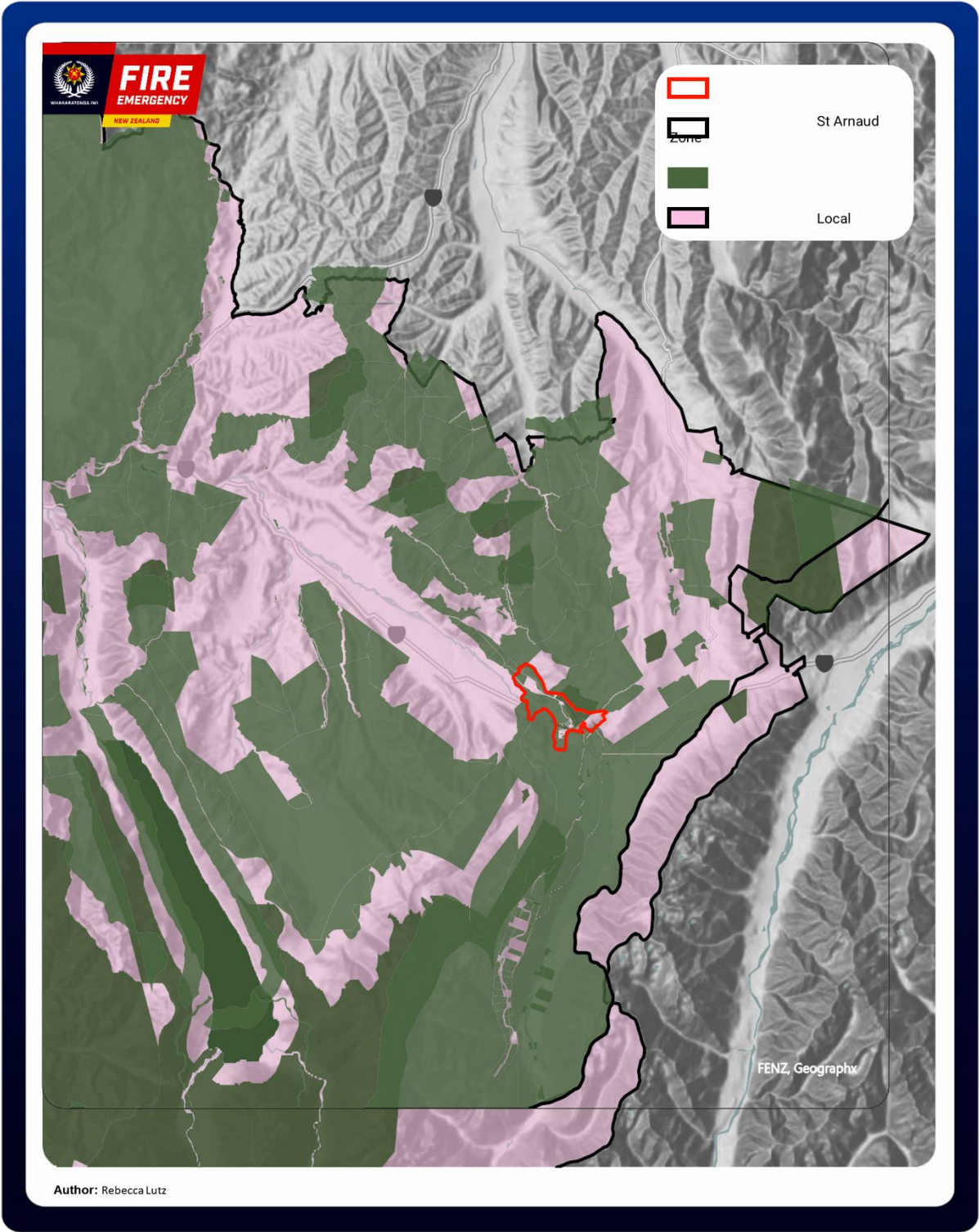
#### **Representative remote automated weather stations**

The Remote Automated Weather Station (RAWS) used to determine whether we have reached the trigger thresholds is St Arnaud RAWS, located on Department of Conservation land at the corner of View Road and Ward Street in St Arnaud at alt. 644 m amsl.

We will consider the forecast for this location when declaring or revoking a fire season.

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St Arnaud Zone map





## Murchison and Lakes Zones

### Geography

The Murchison and Lakes Zones encompass the Nelson Lakes National Park and the lower section of the Kahurangi National Park to the west. As such, a significant alpine environment exists, with several mountains over 2,000 m and two large lakes, and remote wilderness areas predominate.

The area of the zone north of St Arnaud is predominately rolling hill country that leads into the Waimea Zone (Golden Downs).

The main Alpine Fault runs through this zone and directly below the St Arnaud township, with historically significant earthquakes having occurred in the Murchison general area (1929).

The two zones sit side by side, with the Lakes Zone to the east and the Murchison Zone to the west. The western boundary of the Nelson Lakes National Park acts as the boundary between the two zones. The eastern boundary of the Lakes Zone follows the St Arnaud Range and Spenser Mountains to a point northeast of Springs Junction. The western boundary of the Murchison Zone heads north along the Glenroy River to Burnbrea. From there, the boundary follows SH 6 north until it reaches the Buller River. The western boundary then continues north, following the Matiri Range until it reaches LAT -41.480371 LONG 172.394736. The zone boundary then travels east to where it meets up with the Lakes Zone boundary on SH 60/Dry Weather Road.

### Demographics

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

The township of Murchison has a permanent population of 471 and is primarily a rural hub town for the surrounding rural communities. Murchison is located on SH 6, which is the main inland route between Canterbury and the Nelson/Tasman Region. It is a mixed demographic of permanent residents, from retirees to rural industry workers, and a thriving adventure sport area, which attracts a fluctuating seasonal population.

The Lakes Zone excludes the township of St Arnaud, which is now a separate zone. The Lakes Zone is predominantly rural farming properties in the Tophouse Settlement, Lake Station, and Howard Valley.



**Climate/  
weather**

Murchison is 171 m above sea level. Temperatures range throughout the year from 4°C in winter to 15°C in the summer months, with an overall average annual temperature of 9.2°C. There is significant rainfall throughout the year in Murchison. October is the wettest month, with an average of 228 mm, and February the driest, with 118 mm averages. Annually, Murchison receives 2,020 mm of rain.

Lakes Zone is 500 m at its lowest point and 2,341 m at its highest on Mount Travers. Temperatures range throughout the year from 1.3°C average in July through to 12.8°C in January. Extremes can be experienced, with snow blanketing the area with sub-zero temperatures at times during the winter, to elevated temperatures in the low thirties with accompanying low RH conditions during the summer months. Rainfall averages range from 106 mm in July through to the wettest month of October, which brings an average of 185 mm. The overall average rainfall for St Arnaud is 1,518 mm.

Given the mountainous topography to the west of the zone, future climate change indicators are that seasons may become more polarised and pronounced, with extremes of either extremely hot and dry summers or very wet ones being more commonplace.

**Land  
cover/land  
use**

The approximate combined area of the Murchison and Lakes zone is 386,924 ha. Land use of this area is as follows:

- Urban (Murchison) accounts for 79 ha
- Alpine (Nelson Lakes and Kahurangi partial) – 22,495 ha
- Agriculture (dairy Murchison and cattle/sheep in the Lakes Zone) – 32,814 ha
- Beech, podocarp, other native species – 270,708 ha
- Tussock grassland – 28,672 ha
- Exotic forestry (commercial plantations and woodlots) – 10,115 ha
- Other unclassified area (lakes, rivers, riverbeds, wetlands) – 22,034 ha.

**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
One-Forty-One – forest plantations in Station Creek and Teetotal area. <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Use of firebreaks</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Tasman District Council – forest plantations in the Howard Valley <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Relevant operations affected</li> <li>• Use of firebreaks</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Primary production, including horticulture and agriculture <ul style="list-style-type: none"> <li>• Use of machinery – sparks</li> <li>• Use of fire for landmanagement</li> <li>• Relevant operations affected</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Lifelines/  
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
Network Tasman – Electricity transmission lines <ul style="list-style-type: none"> <li>• Sparking during high winds</li> <li>• Use of auto-reclosers limited in high fire danger</li> <li>• Recommended vegetation mitigation practices</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roothing network <ul style="list-style-type: none"> <li>• Sparks from vehicle malfunction, discarded cigarettes</li> <li>• Spark-causing activities during road maintenance and mowing</li> <li>• State Highways 6 and 63 only road access in and out of the District</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**Electricity transmission**

110 kW overhead lines run through the Howard Valley and onto Murchison via the Buller River valley and from there out to Westport.

The Islington to Kikiwa 220 kW line runs to the east of the zone via the Rainbow Valley and passes through the zone for a short distance to the east of the St Arnaud township.

**Recreational  
locations**

- Teetotal forest to the NW of St Arnaud township – mountain biking and forest access
- Lakes Rotoiti and Rotoroa
- Pourangahau/Mt Robert and Rainbow Ski Area
- Murchison Sport Recreation and Cultural Centre
- Murchison – white-water kayaking and rafting

### 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.

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
Alpine Lodge Loop the Lake endurance run – annual event held in early April	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Antique & Classic Boat Show – annual event run over two weekends in early March	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Nelson Lakes Gliding Club – annual flying week mid-February	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Buller Festival – whitewater kayaking and rafting event held in early March each year	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hikers in the Nelson Lakes and Kahurangi National Parks lighting fires for warm and/or cooking	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Special risk areas

Special risk area	Contributes to increased risk of fire in high-risk conditions	Affected by use of fire control measures	Needs to be protected by using fire control measures
Public conservation land	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lakes Rotoiti and Rotoroa <ul style="list-style-type: none"> <li>Very high visitor numbers over summer, staying at the Department of Conservation campsites, which are surrounded by very high loadings volatile vegetation such as mānuka and kānuka.</li> </ul>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

DOC land throughout the zone is restricted 365 days a year unless moved to prohibited.

**Known fire hazards**

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

**Frequency of elevated fire danger**

On average, this zone experiences:

- 1 days of extreme fire danger per fire season (October–May)
- 18 days of very high fire danger per fire season (October–May).

In the past seven years, this zone experienced two years of drought, unseen since 1972/73. In the 2018/19 and 2019/20 years, prohibited seasons were imposed and restrictions placed on access to high-risk tracks and locations.

**Fire history**

The known fire history for this zone includes:

Year	Fire	Cause
2009	Neilson Clearing - Shenandoah Saddle (44 ha)	Suspected arson
2011	Matiri fire (20 ha)	Out of control – controlled burn
2018	Neilson Clearing – Shenandoah Saddle (28 ha)	Suspected arson
2023	Neilson Clearing – Shenandoah Saddle (17 ha)	Suspected arson

**Predominant fuel type**

The fuel type in this zone is predominantly indigenous forest, with scrub-covered foothills that contain medium areas of commercial forest and valley floor grasslands.

**Thresholds****Fire season**

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

Grass Curing (GC%)	Build-up Index (BUI)		
(%)	0–40	40–80	> 80
0–70	Open	Restricted (suspend permits @ 60 BUI)	Prohibited
70–80	Restricted (suspend permits @ 60 BUI)	Restricted (suspend permits @ 60 BUI)	Prohibited
> 80	Prohibited	Prohibited	Prohibited

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

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

Other local thresholds have not been set

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

A Readiness Planning Group meets when a BUI of 80 will be reached in part of the District. The group is made up of landowners/managers, recreational groups, mountain bike park operators, local authorities, forestry contractors, forest companies, engineering providers, roading companies and farmers.

The group meetings are scheduled for each Wednesday and the group reviews the current fire indices and the weather forecast for the next 10–15 days, and develops a plan for messaging, signage and restrictions needed for high-risk public areas and work sites.

All restrictions and closures are done with collaboration and agreement of the landowner/manager.

### Access to commercial forests

Build-up Index (BUI)		
0–60	60–80	> 80
Access by forest company permit only	Signage placed at entrances	Public access prohibited Access only for work

### Access to public and private walking tracks, mountain bike tracks/parks and recreation areas

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances.	Public access prohibited Concession holders with plans may be granted access

### Public road access restrictions to high-risk single-egress valleys

Build-up Index (BUI)		
0–60	80–100	> 100
No restriction	Signage placed at entrances	Consider restricting access to residents and workers only

Public areas considered for access restrictions when the Build-up Index (BUI) is greater than 100 are listed in the recreational locations for this zone.

### Forestry operations

Since 2003, forest owners and contractors have been collaborating with the Fire Authority/Fire and Emergency, producing the *Forest Industry Working Group fire prevention guidelines for forestry operations*. It has been regularly reviewed to consider new equipment, evolving work practices and lessons learned from fire events, so that it remains effective and relevant. The latest version is the result of 12 such reviews.

The guideline details the equipment requirements and activity requirements for each aspect of forest operations across six levels of fire risk. BUI and FWI are used as the trigger levels.

Once the BUI climbs above 40, a daily update of fire risk level or colour for each forest zone is emailed out to industry people and organisations. The update is sent each morning with the current day and the following day forecast fire risk levels given.

A copy of the guideline is included as [Appendix 1](#).

### **Chainsaw thinning to waste/tree felling**

Chainsaw thinning to waste/tree felling restrictions are documented within the *Forest Industry Working Group fire prevention guidelines for forestry operations*. They are communicated across the forest contractors and industry in line with the procedure outlined above for forestry operations.

### **Spark hazardous activities**

In 2019, in consultation with a working group consisting of farmers, agricultural contractors, engineering companies, roadside mowers and local authorities, the *Nelson–Tasman fire prevention guideline for heat and spark hazardous activities/hotworks* was developed. It is currently on its eighth iteration. The guideline uses a matrix of GC and FPMC to determine the risk of ignition, which is expressed in one of four colours, green, yellow, orange or red. For each risk level, the response equipment requirements are listed for various activities, including:

- roadside and pasture/gorse/scrub mowing
- welding/grinding/gas cutting
- using crop harvesting machines, including for crop trimming
- mechanical pasture/scrub development/discing/ploughing/cultivating
- using tracked and digging machines on grass dead/vegetation (includes civil contracting and quarrying)
- use of electric fences
- chainsaws, chippers or steel scrub-cutters.

The activity requirements for each activity type are given for each coloured fire risk level.

Each day, the forecast risk levels for each zone in the District are emailed out to a list of people and organisations. This list is different from the Forestry Operations email list.

A copy of the guideline is attached in [Appendix 2](#).

### **Powerline auto-reclosers**

In 2015, the Powerline Auto- recloser Guideline was developed in consultation with local power network distributors. The guideline is based on the risk level being calculated on a matrix of grass curing and Fine Fuel Moisture Code with a wind component and results in a 3-colour risk level rating that indicates if the auto- reclose should be switched off.

A copy of the guideline in [Appendix 3](#).

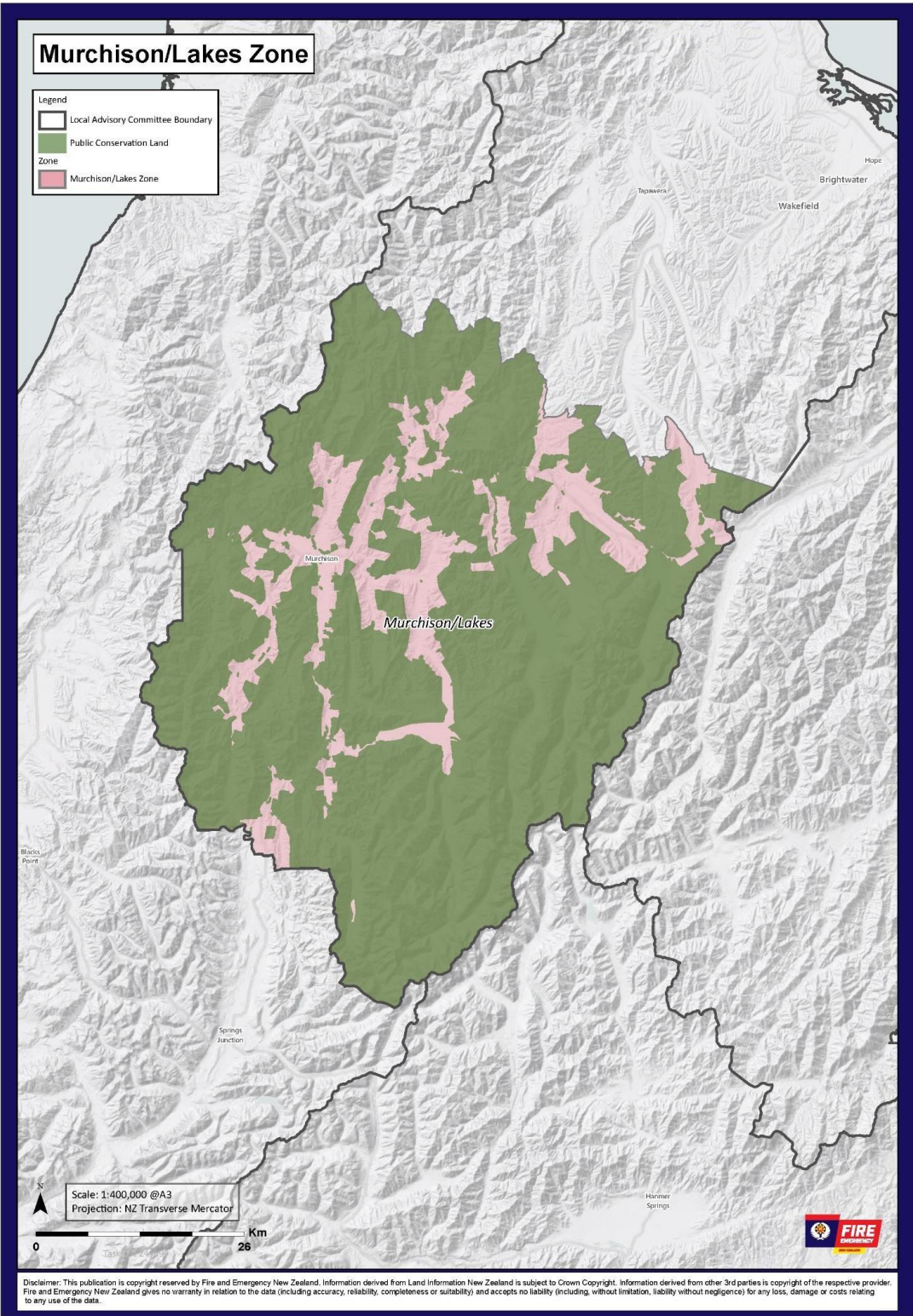


**Representative  
remote  
automated  
weather  
stations**

The Remote Automated Weather Station (RAWS) used to determine whether we have reached the trigger thresholds is Murchison, sited at the DOC depot on Fairfax Street in Murchison at alt. 145 m amsl. We will consider the forecast for this location when declaring or revoking a fire season.

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CONSULTATION

Murchison/Lakes Zone map

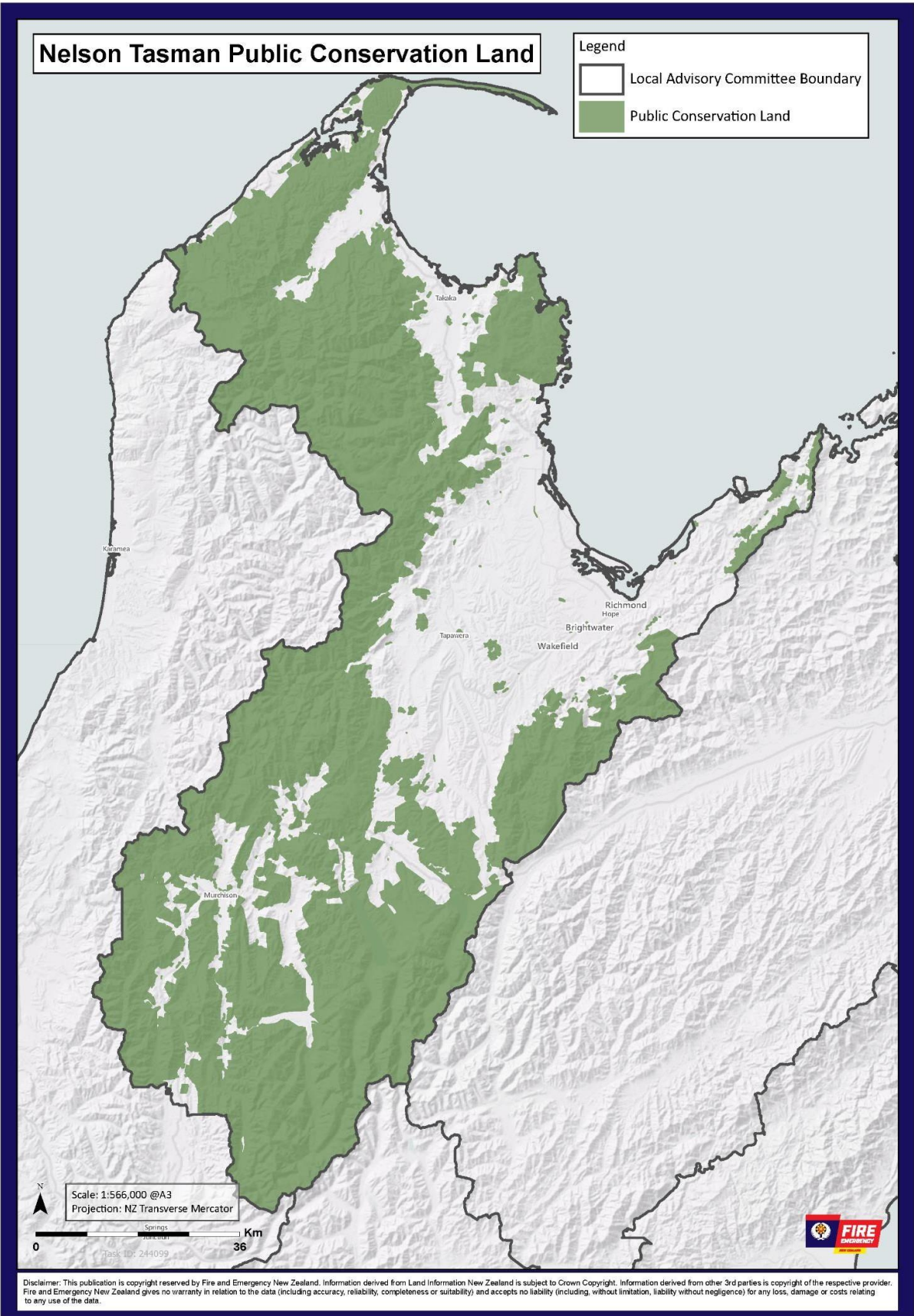


## Public conservation land

<b>Geography</b>	Nelson–Tasman area contains three significant National Parks: Kahurangi (452,900 ha), Abel Tasman (23,700 ha) and Nelson Lakes (101,900 ha). There are also many public conservation land (PCL) reserve areas throughout the District, including the significant ecological area, Farewell Spit.
<b>Land cover</b>	Lowland native, grass tablelands, alpine, coastal rātā/broadleaf, mixed beech/podocarp.
<b>Restricted season year round</b>	Will maintain a restricted fire season status throughout the year unless elevated to a prohibited fire season.
<b>Thresholds</b>	Thresholds for declaring or revoking a prohibited fire season are the same as listed for the above zones.
<b>Representative Remote Automated Weather Station</b>	<p>The Remote Automated Weather Station (RAWS) used to determine whether we have reached the trigger thresholds are:</p> <ul style="list-style-type: none"> <li>• Murchison</li> <li>• Tākaka</li> <li>• Motueka/Riwaka</li> <li>• Nelson AWS</li> <li>• Dovedale</li> <li>• Aniseed Valley</li> <li>• Big Pokororo</li> <li>• Western Boundary</li> <li>• Hira.</li> </ul> <p>We will consider the forecast for these locations when declaring or revoking a fire season.</p>



Public conservation land zone map



Appendix 1 – Fire prevention guidelines for forestry operations

Nelson/Marlborough Forest Industry Working Group fire prevention guidelines for forestry operations

Operative from 12 Feb 2020 Updated 10 Feb 2020

When a BUI of over 40 exists, the colour code for each of the forest climate areas for the current days and the following day level will be distributed to key personnel, organisations and industry groups.

You may also obtain the broadcast by email, contact –

[firepermit.nelsonmarlborough@fireandemergency.nz](mailto:firepermit.nelsonmarlborough@fireandemergency.nz)

or alternatively you can view the colour code levels with a 5-day forecast at:<https://fireweather.niwa.co.nz/region/Nelson%20Marlborough>

Escalating to one or more higher code levels may be appropriate for a period if significant wind and or low RH and or high temperatures exist.

Equipment Requirement					
Requirements for....	Extinguishers	Water	Knapsacks	Handtools	Communication
Harvesting Crews		2*20 Litres or 9 litre pressurised water extinguisher on skid.	2*15 litre on site(full)	4 shovels	Radio
Tree faller (Manual)	1* 350gm capacity Class A, B carried on belt each person using chainsaw				Radio
Tractor, Skidder, Excavator, Felling Machine	1*2kg dry powder Class A, B 1* 9 litre water pressure or 2kg foam				
Loader, Hauler, Bell and Waratah	1*2kg dry powder Class A, B				
Car, Utility or Van	1*0.9 kg Class A, B			1 shovel	
Truck or Grader	1*2kg dry powder Class A, B			1 shovel	Radio
Silviculture Crew	1* 350gm capacity Class A, B carried on belt for each person using chainsaw	1*20 Litres per knapsack (full) or 9 litre pressurised water extinguisher		Per 5 people - 4 total made up of shovels, slashers, combi, Puklowski, McLeod	Radio

Activity Requirement	
Requirements for....	
Welding/Gas Cutting/Abrasive Wheel Cutting	Only on bare earth 1 * 15 litre knapsack (full) or 9 litre pressurised water within 5m of work area. Patrol for 30 minutes after completion
Smoking	Only on bare mineral earth areas or in huts/vehicles

Equipment Requirement					
Requirements for....	Extinguishers	Water	Knapsacks	Handtools	Communication
Harvesting Crews		2*20 Litres or 9 litre pressurised water extinguisher on skid.	2*15 litre on site(full)	4 shovels	Radio
Tree faller (Manual)	1* 350gm capacity Class A, B carried on belt each person using chainsaw				Radio
Tractor, Skidder, Excavator, Felling Machine	1*2kg dry powder Class A, B 1* 9 litre water pressure or 2kg foam				
Loader, Hauler, Bell and Waratah	1*2kg dry powder Class A, B				
Car, Utility or Van	1*0.9 kg Class A, B			1 shovel	
Truck or Grader	1*2kg dry powder Class A, B			1 shovel	Radio
Silviculture Crew	1* 350gm capacity Class A, B carried on belt for each person using chainsaw	1*20 Litres per knapsack (full) or 9 litre pressurised water extinguisher		Per 5 people – 4 total made up of shovels, slashers, combi, Puklowski, McLeod	Radio

Activity Requirements	
Requirements for....	Requirements are....
Welding/Gas Cutting/Abrasive Wheel Cutting	Only on bare earth 1 * 15 litre knapsack (full) or 9 litre pressurised water within 5m of work area. Patrol for 30 minutes after completion
Smoking	Only on bare mineral earth roads, landings, in huts or vehicles. No Smoking in cutover
Daily Inspections and maintenance	Assess daily weather at 11:00am onsite to determine need for elevation of preparedness &/or work restrictions. ** See escalation methods at back of guide Check chainsaws and machinery for debris build up near hot working parts such as belly pans and radiators. Check engine bay hydraulic hoses for leaks. Inspect hauler blocks for heat, and ropes for binds, rock strikes. Vegetation around backline blocks cleared of vegetation to mineral earth 1.5m radius. Inspections should be noted in diary.
Weekly inspections and maintenance	Documented inspection of all fire equipment (including extinguishers)
Chainsaw thinning	Review site hazards (Undergrowth fuels, aspect, and escape routes). Move chainsaw thinning to areas with lower hazard where possible
Fire starts	Notify lookout or PRFO of any fire start regardless of size.
Emergency planning	Notify lookout of any road closures or weekend work Discuss code blue requirements and preparation for future elevation to code yellow at tailgate meetings Identify suitable water points (For ground and helicopter) around work areas
Forest access	Review public access to forest.

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the previous colour code

Code Yellow BUI 60.1 to 80

Equipment Requirements					
Requirements for....	Extinguishers	Water	Knapsacks	Handtools	Communication
Harvesting Crews		2*20 Litres or 9 litre pressurisedwater extinguisher on skid.	2*15 litre on site (full)	4 shovels	Radio
Tree faller (Manual)	1* 350gm capacity Class A, B carriedon belt each person using chainsaw				Radio
Tractor, Skidder, Excavator,Felling Machine	1*2kg dry powder Class A, B 1* 9 litre water pressure or 2kg foam				
Loader, Hauler, Bell andWaratah	1*2kg dry powder Class A, B				
Car, Utility or Van	1*0.9 kg Class A, B			1 shovel	
Truck or Grader	1*2kg dry powder Class A, B			1 shovel	Radio
Silviculture Crew	1* 350gm capacity Class A, B carriedon belt for each person using chainsaw	1*20 Litres per knapsack (full) or 9 litre pressurised water extinguisher		Per 5 people – 4 total made up of shovels, slashers, combi, Puklowski,McLeod	Radio

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the previous colour code



Activity Requirements	
Requirements for....	Requirements are....
Welding/Gas Cutting/Abrasive Wheel Cutting	Only on bare earth Wet down area within 4m of work site before commencing Contact Lookout before starting 5485613 or Richmond Hill Lookout on RT 1 * 15 litre knapsack (full) or 9 litre pressurised water within 5m of work area.Patrol for 30 minutes after completion.
Smoking	Only on bare mineral earth roads, landings, in huts or vehicles. No Smoking in cutover
Daily Inspections and maintenance	Assess daily weather at 11:00am onsite to determine need for elevation of preparedness &/or work restrictions. ** See escalation methods at back of guideCheck chainsaws and machinery for debris build up near hot working parts such as belly pans and radiators. Check engine bay hydraulic hoses for leaks. Inspect hauler blocks for heat, and ropes for binds, rock strikes. Vegetation around backline blocks cleared of vegetation to mineral earth 1.5m radius.Inspections should be noted in diary.
Weekly Inspections and maintenance	Documented inspection of all fire equipment (including extinguishers) Weekly cleaning for all machines and chainsaws.
Chainsaw thinning	Review site hazards (Undergrowth fuels, aspect, and escape routes). Move chainsaw thinning to areas with lower hazard where possible
Fire starts	Notify lookout or PRFO of any fire start regardless of size.
Emergency planning	Notify lookout of any road closures or weekend work Identify suitable water points (For ground and helicopter) around work areas Discuss code yellow requirements and preparation for future elevation to code Orange at tailgate meetingsConsider covering in tailgate meetings: escape plans (X2).
Forest access	Restrict public access to forest.
Mowing and slashing (Roadside and ground)	Stop roadside mowing and slashing

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the **previous** colour code

Code Orange BUI 80.1 to 100

Equipment Requirements					
Requirements for....	Extinguishers	Water	Knapsacks	Handtools	Communication
Harvesting Crews		2*20 Litres or 9 litre pressurisedwater extinguisher on skid. 1 * 20 litre water at each back block.	1* full knapsack at each back block.	4 Shovels <b>Shovel or fire rake at each back block</b>	Radio
Tree faller (Manual)	1* 350gm capacity Class A, B carriedon belt each person using chainsaw				Radio
Tractor, Skidder, Excavator,Felling Machine	1*2kg dry powder Class A, B 1* 9 litre water pressure or 2kg foam				
Loader, Hauler, Bell andWaratah	1*2kg dry powder Class A, B				
Car, Utility or Van	1*0.9 kg Class A, B			1 shovel	
Truck or Grader	1*2kg dry powder Class A, B			1 shovel	Radio
Silviculture Crew	1* 350gm capacity Class A, B carriedon belt for each person using chainsaw	1*20 Litres per knapsack (full) or 9 litre pressurised water extinguisher		Per 5 people – 4 totals made up of shovels, slashers, combi, Puklowski, McLeod	Radio

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the previous colour code

Activity Requirements	
Requirements for....	Requirements are....
Welding/Gas Cutting/Abrasive Wheel Cutting	<p>Only on bare earth</p> <p>Wet down area within 4m of work site before commencing</p> <p>Contact Lookout before starting 5485613 or Richmond Hill Lookout on RT</p> <p>1 * 15 litre knapsack (full) or 9 litre pressurised water within 5m of work area. Patrol for 30 minutes after completion.</p>
Smoking	Only on bare mineral earth roads, landings, in huts or vehicles. No Smoking in cutover
Daily Inspections and Maintenance	<p>Assess daily weather at 11:00am onsite to determine need for elevation of preparedness &amp;/or work restrictions. ** See escalation methods at back of guide</p> <p>Check chainsaws and machinery for debris build up near hot working parts such as belly pans and radiators.</p> <p>Check engine bay hydraulic hoses for leaks.</p> <p>Inspect hauler blocks for heat, and ropes for binds, rock strikes.</p> <p>Vegetation around backline blocks cleared of vegetation to mineral earth 1.5m radius. Inspections should be noted in diary.</p>
Weekly inspections and maintenance	Weekly documented inspection of all fire equipment (including extinguishers) Weekly cleaning for all machines and chainsaws.
Chainsaw thinning	Review site hazards (Undergrowth fuels, aspect, and escape routes). Move chainsaw thinning to areas with low hazard i.e D.fir, south facing slopes, low fuel loading, flattopography.
Fire starts	Notify lookout or PRFO of any fire start regardless of size.
Emergency planning	<p>Notify lookout of any road closures or weekend work</p> <p>Discuss code Orange requirements and preparation for future elevation to code Red at tailgate meetings</p> <p>Consider covering in tailgate meetings:</p> <p>escape plans (X2).</p> <p>Identify suitable water points (For ground and helicopter) around work areas</p>
Forest access	<p>Restrict public access to forest.</p> <p>Consider putting up signage at access points warning of fire danger. Restrict all hunting and firewood gathering.</p>
Mowing and slashing (Roadside and ground)	Stop roadside mowing and slashing
<p>Machines – including: Cable assisted machines, Mobile machinery and 2 stage trucks.</p> <p>Does not include cable haulers</p>	Stop all machines except backline tractors working on cutover or tracks that do not have working inbuilt engine compartment suppression systems at 1300hrs.

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the previous colour code

Code Red BUI 100.1 to 120

Equipment Requirements					
Requirements for.....	Extinguishers	Water	Knapsacks	Handtools	Communication
Harvesting Crews		1000 litre mobile pressurised water available with 60m hose on skid. 1 * 20 litre water at each back block.	1* full knapsack at each back block.	4 shovels Shovel or fire rake at each back block	Radio
Tree faller (Manual)	1* 350gm capacity Class A, B carried on belt each person using chainsaw				Radio
Tractor, Skidder, Excavator, Felling Machine	1*2kg dry powder Class A, B 1* 9 litre water pressure or 2kg foam				
Loader, Hauler, Bell and Waratah	1*2kg dry powder Class A, B				
Car, Utility or Van	1*0.9 kg Class A, B			1 shovel	
Truck or Grader	1*2kg dry powder Class A, B			1 shovel	Radio
Silviculture Crew	1* 350gm capacity Class A, B carried on belt for each person using chainsaw	1*20 Litres per knapsack (full) or 9 litre pressurised water extinguisher		Per 5 people – 4 total made up of shovels, slashers, combi, Puklowski, McLeod	Radio

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the previous colour code

Activity Requirements	
Requirements for....	Requirements are....
Welding/Gas Cutting/Abrasive WheelCutting (hotworks)	Only on bare earth and no hotworks between 1200hrs and 1900hrs Wet down area within 4m of work site before commencing Contact Lookout before starting 5485613 or Richmond Hill Lookout on RT 1 * 15 litre knapsack (full) or 9 litre pressurised water within 5m of work area. 1000 litres available under pressure with at least 60m of hose within 2 minutes of worksite Patrol for 30 minutes after completion.
Smoking	Only on bare mineral earth roads, landings, in huts or vehicles. No Smoking in cutover
Daily Inspections and maintenance	Assess daily weather at 11:00am onsite to determine need for elevation of preparedness &/or work restrictions. ** See escalation methods at back of guideCheck chainsaws and machinery for debris build up near hot working parts such as belly pans and radiators. Check engine bay hydraulic hoses for leaks. Inspect hauler blocks for heat, and ropes for binds, rock strikes. Vegetation around backline blocks cleared of vegetation to mineral earth 1.5m radius.Inspections should be noted in diary.
Weekly Inspections and maintenance	Weekly documented inspection of all fire equipment (including extinguishers) Weekly cleaning for all machines and chainsaws.
Chainsaw thinning	Review site hazards (Undergrowth fuels, aspect, and escape routes). Move chainsaw thinning to areas with lower hazard where possible No chainsaw thinning after 1200 hrs.
Fire starts	Notify lookout or PRFO of any fire start regardless of size.
Emergency planning	Notify lookout of any road closures or weekend work Discuss code Red requirements and preparation for future elevation to code Purple at tailgate meetings Consider covering in tailgate meetings: escape plans (X2). Identify suitable water points (For ground and helicopter) around work areas. Patrol sites for at least 1 hour after machine shutdown. Consider having 3-person quick response crew with tanker within 10 minutes of each operation.
Forest access	Restrict public access to forest. Consider putting up signage at access points warning of fire danger.Restrict all hunting and firewood gathering
Mowing and slashing (Roadside and ground)	Stop roadside mowing and slashing.
<b>Harvesting Chainsaws</b>	Stop all chainsaw operations in cut over after 1200hrs
Machines including: Cable assisted machines, Mobile machinery, 2 stage trucks and cable haulers.	Stop all machines including moving ropes and carriages, working on cutover or tracks at 1300hrs.

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the previous colour code

Code Purple BUI 120.1 +

Equipment Requirements					
Requirements for....	Extinguishers	Water	Knapsacks	Handtools	Communication
Harvesting Crews		1000 litre mobile pressurised water available with 60m hose	2*15 litre (full & on skid) Full knapsack at each back block.	4 shovels Shovel or fire rake at each back block	Radio
Tree faller (Manual)	1* 350gm capacity Class A, B carried on belt each person using chainsaw				Radio
Tractor, Skidder, Excavator, Felling Machine	1*2kg dry powder Class A, B 1* 9 litre water pressure or 2kg foam				
Loader, Hauler, Bell and Waratah	1*2kg dry powder Class A, B				
Car, Utility or Van	1*0.9 kg Class A, B			1 shovel	
Truck or Grader	1*2kg dry powder Class A, B			1 shovel	Radio
Silviculture Crew	1* 350gm capacity Class A, B carried on belt for each person using chainsaw	1*20 Litres per knapsack (full) or 9 litre pressurised water extinguisher		Per 5 people – 4 total made up of shovels, slashers, combi, Puklowski, McLeod	Radio

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the previous colour code

Activity Requirements	
Requirements for....	Requirements are....
Welding/Gas Cutting/Abrasive WheelCutting (hotworks)	Consider Stopping all Hotworks Only on bare earth and no hotworks between 1200hrs and 1900hrsWet down area within 4m of work site before commencing Contact Lookout before starting 5485613 or Richmond Hill Lookout on RT 1 * 15 litre knapsack (full) or 9 litre pressurised water within 5m of work area. 1000 litres available under pressure with at least 60m of hose within 2 minutes of worksitePatrol for 30 minutes after completion.
Smoking	Only on bare mineral earth roads, landings, in huts or vehicles. No Smoking in cutover
Daily Inspections and maintenance	Assess daily weather at 11:00am onsite to determine need for elevation of preparedness &/or work restrictions. ** See escalation methods at back of guideCheck chainsaws and machinery for debris build up near hot working parts such as belly pans and radiators. Check engine bay hydraulic hoses for leaks. Inspect hauler blocks for heat, and ropes for binds, rock strikes. Vegetation around backline blocks cleared of vegetation to mineral earth 1.5m radius. Inspections should be noted in diary. Daily inspection of hydraulic hoses, block bearings, machine belly pans and radiators.
Weekly Inspections and maintenance	Weekly documented inspection of all fire equipment (including extinguishers)Weekly cleaning for all machines and chainsaws.
Chainsaw thinning	Stop all thinning
Fire starts	Notify lookout or PRFO of any fire start regardless of size.
Emergency planning	Notify lookout of any road closures or weekend workDiscuss code purple requirements tailgate meetings.Consider covering in tailgate meetings: escape plans (X2). Identify suitable water points (For ground and helicopter) around work areas. Establish 3-person quick response crew with tanker within 10 minutes of each operation. Patrol sites for at least 1 hour after machine shutdown. Consider short response standby helicopter within 10mins of operation. Extensions to working hours on bare earth or processing sites are subject to appropriate readiness and emergency response planning.
Forest access	Restrict Public access to forest Consider putting up signage at access points warning of fire danger.Stop all hunting and firewood gathering.
Mowing and slashing (Roadside and ground)	Stop roadside mowing and slashing.
Harvesting chainsaws	Stop after 1200hrs.
Machines including: Cable assisted machines, Mobile machinery, 2 stagetrucks and cable haulers.	Stop all machines working on bare earth or processing sites between 1300 and 1900 HRS Stop all machines including moving ropes and carriages, working on cutover or tracks at 1300hrs. Consider stopping log truck movement between 1300-1900hrs. (An example method for doing this in Appendix 2) Stop all slash raking and fire breaking

Note: Items highlighted in BOLD are equipment or activity requirements that have been newly introduced from the previous colour code.



## **\*\*Code Escalation Options**

The following options are available in assessing current weather conditions or forecast conditions when making the decision to escalate to a higher code level: **NB it may be appropriate that you elevate more than one level while a significant fire weather event is occurring i.e strong wind and or low RH and or high temperatures.**

5. If the FWI is or forecast to be over 25. This can be found at:  
<https://fireweather.niwa.co.nz/region/Nelson%20Marlborough>
6. An onsite measurement of Wind and RH indicates that the FWI is likely to be over 25, or
7. If there is wind that is averaging more than 20-25km/h. This can be measured either by a handheld wind meter or by using the Beaufort wind scale as below:
  - Force 2 = Light breeze, 6-11 km/h – wind felt on the face, leaves/needles rustle
  - Force 3 = Gentle breeze, 12-19 km/h – leaves/needles and small twigs in constant motion, wind extends light flags
  - Force 4 = Moderate breeze, 20-29 km/h – wind raises dust, small branches are moved
  - Force 5 = Fresh breeze, 30-39 km/h – small trees begin to sway, waves form on open water.

When assessing the decision to escalate if and how many levels, you can assess the following indicators in forming your decision:

- Steep slopes – greater than 20 degrees (35%, or grade of 1 in 3)
- High fuel loads – especially if dry fine fuels from thinning, cutover or scrub understory (e.g. gorse, fern, manuka) are present
- Hotter, drier aspects – North or West facing
- If fine fuels are dry – indicated by dead litter on the ground crunching as walked on, elevated dead needles snapping when bent, seed pods/cones bursting or dust rising from dirt tracks as you walk along them.

**The more indicators present – the higher the risk**



## Example Template – Considering risks associated with log transport in extreme conditions (Code Purple)

There are several specific risks associated with log transport operations described below. Before Fire weather conditions reach Code PURPLE each logging site and location can be reviewed against the risks described as well as any other risks that might be relevant. The risks provided in this document along with recommended mitigations can be reviewed for each logging crew and a strategy for the next 3 weeks based on their location proposed and documented in the table below.

### Risk assessment considerations:

<b>People</b>
The operation is near a rural community that would be threatened by a fire. The driver is at risk from a fire starting within the near neighbor environment
<b>Equipment</b>
<p>The loading operation is by tracked excavator-based equipment that can be a source of sparks</p> <p>The loader is a source of a machine fire. Regular checks of cleanliness and/or inbuilt suppression equipment. Chains dragging on the road can ignite fine fuels along road edge</p> <p>A flat tyre collapses onto the steel rim generating sparks</p> <p>Failed wheel bearings and brake components can drop hot metal</p>
<b>Materials</b>
<p>There are fine fuels in close proximity to the loading operation.</p> <p>There is a fuel loading imposing into the roadway</p>
<b>Environment</b>
<p>Wind conditions</p> <p>The crew is near to a county road with a low fuel environment. Short pasture There is a very long lead distance to the nearest county road</p> <p>The exit road is narrow and carries some form of fuel loading near to the carriageway There is no alternative access (escape) opportunity for the truck</p>

### Mitigations

1. Chains, tyres, wheels are all checked prior to leaving skid and at the load securing point
2. Any fine fuel on the loading area is brushed off to mineral soil prior to the logging crew leaving at the end of their shift 1300hrs.

The crew has a mobile pressurised water supply of at least 2000 litres and at least 60m of fire hose located within 10 minutes response time for the loading point and exit road.

**Stop transport** operations between 1300-1900 in code purple when: (If any of the following considerations are present)

1. Wind exceeds 10 Km/hr. (FWI 30)
2. A dwelling or community is close to the operation or access road and evacuation would be complicated (fire would block one-way valley system; continuous high fuel loadings surround property/dwellings)
3. A tracked excavator-based loader is working
4. The access roadway is narrow and/or overgrown (carries some form of fuel loading)
5. There is any combustible material on the loading area
6. There is no reliable/suitable alternative escape route for the people on the load out site

**Proposed load out restrictions 1300-1900 for the next three weeks at each crew are**

List of each crew/location with risk assessment and restrictions

Crew	Location	Risks	Restrictions
A	Block XXX	Located in gully below houses	No Load outs
B	Block YYY	People in houses further up one-way valley	No load outs
C	Block ZZZ	No near neighbours, new road with no encroaching fuel, wheeled loader, fresh skid clear of slash, reliable escape route available. Pressurised water available	Load outs allowed

## Appendix 2 – Heat and spark hazardous activities/hotworks

### Nelson–Tasman fire prevention guideline for heat and spark hazardous activities/hotworks

#### Spark hazardous industry activities with grass and scrub fuels fire risk potential:

1. Roadside and pasture/gorse/scrub mowing and mulching
2. Welding, grinding, gas cutting
3. Crop harvesting including harvesters and transport vehicles
4. Land preparation including tractors and implements that strike or move through the ground
5. Tracked machine operation
6. Use electric fences
7. Use Scrub Bars, Chainsaws, Chippers

#### Grass fuels:

- At low **grass curing** values, the proportion of dead grass fuel present is low and there is little fuel to be ignited. Potential for fire spread is also low and any fire will only spread slowly, if at all, and with lower fire intensity so that control is more easily achieved.
- At high **grass curing** values, the proportion of dead grass fuel present is higher meaning fire will develop and spread faster with higher intensity making control more difficult.
- At low **FFMC (Fine fuel moisture code)** values, grass fuels are moister so that the likelihood of ignition is low, and fire spread is impeded.
- At high **FFMC (Fine fuel moisture code)** values, grasses are drier and are easily ignited, develop fast and spread rapidly.

#### Scrub Fuels:

Scrub fuels particularly Manuka and Gorse have a high loading of fine fuels that dry out rapidly often within days after rain. Hot, dry and windy days will dry scrub out and make it available to burn rapidly. Fires are easily ignited, develop and spread quickly and burn with high intensity making control difficult.

#### Heat and Spark Hazardous Operations (Hotworks) Fire Prevention Guideline

As well as grass mowing when the grass or scrub is dry, cutting, grinding and activities where metal may strike metal or stone have a history of starting fires. These typically ignite grass and scrub fuels. Grass curing and FFMC (Fine Fuel Moisture Code) are the major factors in determining fire risk ignition potential from sparks. High wind speeds will escalate fire spread and growth once ignition has occurred.

#### How to use this guide

There are two ways to use this guide –

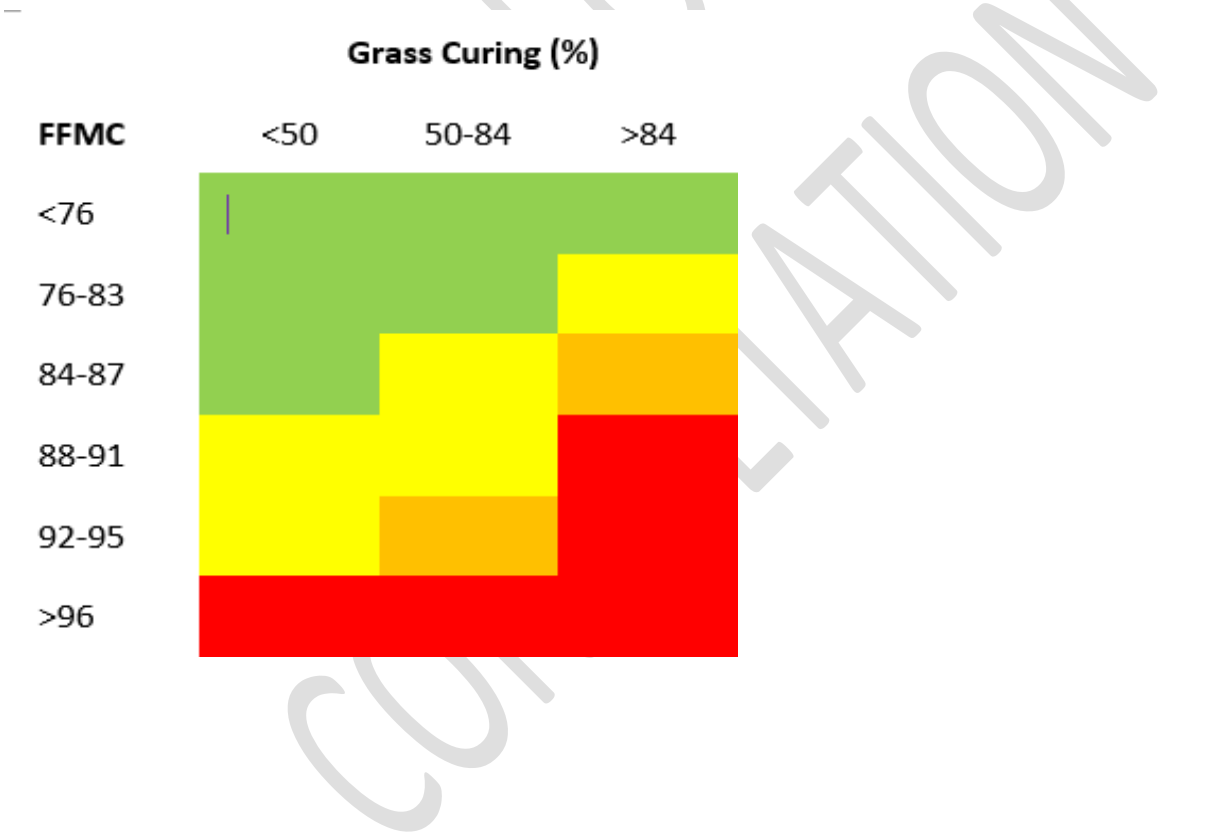
- Use the method described below for a site-specific assessment. You will need to have a basic understanding of fire science to understand how to do this.
- Use the code produced and emailed out each day by Fire and Emergency NZ.












Site Specific Assessment Procedure

- 1. Use the grass curing guide on the next page to help determine grass curing level
- 2. Determine the FPMC by
  - a. FPMC Level Guidelines can be viewed at <https://fireweather.niwa.co.nz/region/Nelson%20Marlborough> scroll down to the table and the FPMC level for your nearest weather station can be read or
  - b. Or refer to the daily broadcast provided by Fire and Emergency New Zealand

Use this matrix below to identify the relevant risk by cross matching the onsite grass curing level with the FPMC for the day/time. Where these two indices cross give the “Colour Code” risk level for the site. Look up the applicable “Colour Code” in the table below to determine equipment requirements and timing restrictions for your activity

Grass Curing Guide



From early growth to start of seed head development	0	GREEN PHASE	
Seed heads formed and flowering	10		
Seed heads maturing and changing colour	20		
Yellowing becoming apparent in leaves	30		
Slightly more than half green	40	YELLOW PHASE	
Half green and half yellow, half of stems have dropped their seeds	50		
Slightly more than half yellow	60		
Yellow dominating landscape, some green visible	70	DRY PHASE	
Lower third of stalk may be green	80		
Very little green in landscape, all seeds dropped	90		
No green in landscape, stalks fully cured and break easily	100		

When estimating the amount of cured or dead grass, ensure that you consider the amount of thatch that may be under the top grasses

**Code Green**

<b>Equipment Requirements</b>				
<b>Requirements for....</b>	<b>Extinguishers</b>	<b>Water</b>	<b>Handtools</b>	<b>Communication</b>
Roadside and pasture/gorse/scrub mowing and mulching.	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack	Shovel	
Welding/Grinding/Gas cutting	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack	Shovel	
Crop Harvesting machine/site, includes crop trimming	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack	Shovel	
Mechanical pasture/scrub development/discing/ploughing/cultivating	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack	Shovel	
Tracked and digging machines on grass/dead &/or dry vegetation (Includes civil contracting and quarrying)	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack	Shovel	
Use electric fences				
Chainsaws, chippers, steel scrub cutters		9 litre pressurised water extinguisher or full 15 litre knapsack	Shovel	

<b>Activity Requirements</b>	
<b>Requirements for....</b>	
Welding/Gas Cutting/Abrasive Wheel Cutting	Only on bare earth/non-flammable surface



**Code Yellow**

<b>Equipment Requirements</b>				
<b>Requirements for....</b>	<b>Extinguishers</b>	<b>Water</b>	<b>Handtools</b>	<b>Communication</b>
Roadside and pasture/gorse/scrub mowing and mulching.	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack. 100 litres available under pressure within 5 minutes.	Shovel	Radio to base or cell phone with coverage
Welding/Grinding/Gas cutting	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack. within 5m of worksite	Shovel	Radio to base or cell phone with coverage
Crop Harvesting machine/site, includes crop trimming	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack.	Shovel	Radio to base or cell phone with coverage
Mechanical pasture/scrub development /discing/ploughing/cultivating	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack.	Shovel	Radio to base or cell phone with coverage
Tracked and digging machines on grass/dead &/or dry vegetation (Includes civil contracting and quarrying)	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack.	Shovel	Radio to base or cell phone with coverage
Use electric fences				
Chainsaws, chippers, steel scrub cutters	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack.	Shovel	Radio to base or cell phone with coverage

**Activity Requirements****Requirements for....**

Roadside and pasture/gorse/scrub mowing and mulching.	Ensure mower head bearings are in good condition Ensure engine compartment is clean
Welding/Grinding/Gas cutting	Not permitted above vegetation. Only on bare earth/non-flammable surface Wet down area 4m around work site before commencing Patrol for 30 minutes after completion
Crop Harvesting machine/site, includes crop trimming	Check and if necessary clean machine daily
Mechanical pasture/scrub development/discing/ploughing/cultivating	Check and if necessary clean machine daily
Tracked and digging machines on grass/dead &/or dry vegetation (Includes civil contracting and quarrying)	Check and if necessary clean machine daily
Use electric fences	Check fences and mains feed lines for shorts - weekly
Chainsaws, chippers, steel scrub cutters	Check and if necessary clean machine daily. Avoid using scrub bars where contact with rock or steel may occur

**Code Orange**

<b>Equipment Requirements</b>				
<b>Requirements for....</b>	<b>Extinguishers</b>	<b>Water</b>	<b>Handtools</b>	<b>Communication</b>
Roadside and pasture/gorse/scrub mowing and mulching.	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack. 300 litres available under pressure with at least 60m hose within 2 minutes.	Shovel	Radio to base or cell phone with coverage
Welding/Grinding/Gas cutting	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack within 5m of worksite	Shovel	Radio to base or cell phone with coverage
Crop Harvesting machine/site, includes crop trimming	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack. 300 litres available under pressure with at least 60m hose within 2 minutes.	Shovel	Radio to base or cell phone with coverage
Mechanical pasture/scrub development/discing /ploughing/cultivating	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack. 300 litres available under pressure with at least 60m hose within 2 minutes.	Shovel	Radio to base or cell phone with coverage
Tracked and digging machines on grass/dead &/or dry vegetation (Includes civil contracting and quarrying)	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack. 300 litres available under pressure with at least 60m hose within 2 minutes.	Shovel	Radio to base or cell phone with coverage
Use electric fences		Consider using low power portable units and turning off farm mains units.		

Chainsaws, chippers, steel scrub cutters	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack. 300 litres available under pressure with at least 60m hose within 2 minutes.	Shovel	Radio to base or cell phone with coverage
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Activity Requirements	
Requirements for....	
Roadside and pasture/gorse/scrub mowing and mulching.	<p>Ensure mower head bearings are in good condition</p> <p>Ensure engine compartment is clean</p> <p>Have an observer behind operation or where all work area can be seen.</p> <p>Restricted hours of work to when FFMC less than 83 (generally no work 12:00pm – 7:00pm)</p>
Welding/Grinding/Gas cutting	<p>Not permitted above vegetation. Only on bare earth/non-flammable surface</p> <p>Wet down area 4m around work site before commencing</p> <p>Patrol for 30 minutes after completion</p>
Crop Harvesting machine/site, includes crop trimming	<p>Consider restricted hours of work to when FFMC greater than 83 (generally no work 12:00pm – 7:00pm)</p> <p>Consider having an observer watching for fires from where all the work area can be seen</p> <p>Check and if necessary clean machine daily</p>
Mechanical pasture/scrub development/discing/ploughing/cultivating	<p>Consider restricted hours of work to when FFMC greater than 83 (generally no work 12:00pm – 7:00pm)</p> <p>Consider having an observer watching for fires from where all the work area can be seen</p> <p>Check and if necessary clean machine daily</p>
Tracked and digging machines on grass/dead vegetation (Includes civil contracting and quarrying)	<p>Consider restricted hours of work to when FFMC greater than 83 (generally no work 12:00pm – 7:00pm)</p> <p>Consider having an observer watching for fires from where all the work area can be seen</p> <p>Check and if necessary clean machine daily</p>
Use electric fences	If strong wind over 25km/h turn off fence or use low power portable unit

Chainsaws, chippers, steel scrub cutters	<p>Consider restricted hours of work to when FFMC greater than 83 (generally no work 12:00pm – 7:00pm)</p> <p>Consider having an observer watching for fires from where all the work area can be seen</p> <p>Check and if necessary clean machine daily</p> <p>Stop use Steel Scrub Bars</p>
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Note: when conditions are Code Red, only essential work should be undertaken. Ignition is very easy, and any fire will develop and spread rapidly making control very difficult

**Code Red**

<b>Equipment Requirements</b>				
<b>Requirements for....</b>	<b>Extinguishers</b>	<b>Water</b>	<b>Handtools</b>	<b>Communication</b>
Roadside and pasture/gorse/scrub mowing and mulching.		Operation stopped		
Welding/Grinding/Gas cutting	2kg dry powder	9 litre pressurised water extinguisher within 5m of work site 1000 litres available under pressure with at least 60m hose within 2 minutes of site.	Shovel	Radio to base or cell phone with coverage
Crop Harvesting machine/site, includes crop trimming	2kg dry powder	9 litre pressurised water extinguisher. 1000 litres available under pressure with at least 60m hose within 2 minutes of site.	Shovel	Radio to base or cell phone with coverage
Mechanical pasture/scrub development /discing/ploughing/cultivating	2kg dry powder	9 litre pressurised water extinguisher. 1000 litres available under pressure with at least 60m hose within 2 minutes of site.	Shovel	Radio to base or cell phone with coverage
Tracked and digging machines on grass/dead vegetation (Includes civil contracting and quarrying)	2kg dry powder	9 litre pressurised water extinguisher. 1000 litres available under pressure with at least 60m hose within 2 minutes of site.	Shovel	Radio to base or cell phone with coverage
Use electric fences		Check all fences and feeds daily for shorts		
Chainsaws, chippers, steel scrub cutters	2kg dry powder	9 litre pressurised water extinguisher or full 15 litre knapsack. 1000 litres available under pressure with at least 60m hose within 2 minutes.	Shovel	Radio to base or cell phone with coverage

**Code Red**



Activity Requirements	
Requirements for....	
Roadside and pasture/gorse/scrub mowing and mulching.	Stop roadside mowing
Welding/Grinding/Gas cutting sites	Not permitted above vegetation. Only on bare earth/non-flammable surface Wet down area 4m around work site before commencing Patrol for 30 minutes after completion
Crop Harvesting machine/site, includes crop trimming	No work 12:00pm – 7:00pm. If FWI >25 stop work. FWI can be found on the website listed under howto use this guide. Have an observer watching for fires from where all the work area can be seen. Check and if necessary clean machine daily
Mechanical pasture/scrub development/discing/ploughing/cultivating	No work 12:00pm – 7:00pm. If FWI >25 stop work. FWI can be found on the website listed under howto use this guide. Have an observer watching for fires from where all the work area can be seen. Check and if necessary clean machine daily
Tracked and digging machines on grass/dead vegetation (Includes civil contracting and quarrying). (Does not include machine working on bare earth surfaces)	No work 12:00pm – 7:00pm. If FWI >25 stop work. FWI can be found on the website listed under howto use this guide. Have an observer watching for fires from where all the work area can be seen Check and if necessary clean machine daily
Use electric fences	Turn off farm mains units between 12:00pm and 7:00pm where grass under wire is more than 50% cured/dead and on fences essential to stock containment use low power portable battery unit.
Chainsaws, chippers, steel scrub cutters	No work 12:00pm – 7:00pm. If FWI >25 stop work. FWI can be found on the website listed under “howto use this guide”. Check and if necessary clean machine daily Stop use Steel Scrub Bars

## Appendix 3 – Power line guideline

### Power line auto re-closure system triggers – fire risk guidelines

**Online mapping:** <https://fireweather.niwa.co.nz/region/Nelson%20Marlborough>

Computer-controlled power restarts after electrical faults have put a line off the grid have the potential to start fires from sparking electrical current if the line is severed and lying on the ground in ignition-receptive fuels. The objective is to minimise the risk of fire starts from the automatic switching of power by using triggers to identify when auto-reclosing should be switched off.

Grass is the main fuel type beneath power lines along roadsides and in adjacent agricultural lands into which fires could spread. Again, this is a spark-hazardous activity, and Wakelin et al.'s (2010) grass ignition thresholds for metal sparks can be used.

- Faults often caused by high winds (line arcing, contacts or breakage)
- Often ignite rank roadside grass beneath lines (mod/high grass fuel load)
- Ignition is dependent on presence of dead fuels (grass curing) and grass moisture content (from FFMC)
- Fire spread (and intensity) is also dependent on grass curing and ISI
- Matrix of FFMC and Grass Curing, with additional Wind Speed trigger retained to capture both wind effects on line breakage potential and fire spread

Refer to Grass Curing Guide below...












- Wind Speed is used as an indicator of when power failures are likely to be caused by line breakage (lines snapping directly or being broken by fallen branches in high winds), and therefore to come into contact with the ground and fuels where they could ignite a fire, in high winds (as opposed to other faults or false alarms)
- Wind Speed also governs the rate of fire spread potential following ignition
- The Wind Speed trigger has been set at WS <40 km/h (which equates to gusts of 60-80 km/h) to take account of likely line breakage above this level of wind speed
- The range of conditions under which the Level 2 Wind Speed condition applies has also been expanded to include lower FFMC levels across all curing levels (up one step in each case).

Separating out FFMC and wind speed better reflects the separate fuel moisture and wind speed influences. It also avoids instances where a high wind speed but low FFMC results in a high ISI that might otherwise have triggered higher level auto-reclosure controls, but ignition is highly unlikely (due to wet fuels at the low FFMC).

Refer to the Grass Curing Guide below...



### Grass Curing Field Card for On-site Estimation of % Cured Grass in a pasture.

 <b>Grassland Curing Field Card</b>					
<div>20</div> <div>Date / Time: _____</div> <div>Location: _____</div> <div>Point Observation</div> <div> <div>Height (cm)</div> <div>Curing (%)</div> <div>Cover (%)</div> <div>Fuel Load (dry t/ha)</div> </div> <div>Landscape Observation</div> <div> <div>Height (cm)</div> <div>Curing (%)</div> <div>Cover (%)</div> <div>Fuel Load (dry t/ha)</div> </div> <div>Remember to increase your curing if there is substantial thatch in your grassland.</div> <div>15</div> <div>10</div> <div>5</div> <div>1</div>	From early growth to start of seed head development	0	GREEN PHASE		
	Seed heads formed and flowering	10			
	Seed heads maturing and changing colour	20			
	Yellowing becoming apparent in leaves	30			
	Slightly more than half green	40	YELLOW PHASE		
	Half green and half yellow, half of stems have dropped their seeds	50			
	Slightly more than half yellow	60			
	Yellow dominating landscape, some green visible	70	DRY PHASE		
	Lower third of stalk may be green	80			
	Very little green in landscape, all seeds dropped	90			
No green in landscape, stalks fully cured and break easily	100	