



Mt Cass Wind Farm Fire Management Plan



Revision 12 – 31 July 2026

Revision History

Version	Description	Date	Prepared by	Approved By
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1. Introduction

1.1 Purpose

The purpose of this Fire Management Plan (FMP) is to inform people involved in the Mt Cass Wind Farm how to control and reduce the possibility of fire on the site and to specify what equipment may be used in case of a fire.

The FMP forms part of the Construction Management Plan (CMP) to manage the fire risks associated with construction of the wind farm. It also forms part of the Environmental Management Plan (EMP) to manage the risks posed by fire to the valuable native biodiversity present on Mt Cass.

Refer to the CMP for a description of the Mt Cass Wind Farm construction project and site.

The FMP will be updated to reflect the operational phase of the wind farm when construction is completed.

The FMP identifies fire risks and the mitigation measures that will be used to minimise them. The plan is also required to meet the requirements of the resource consent RC260077, specifically Condition 121 which requires the plan to include:

- a) The names and contact details for Fire and Emergency NZ (FENZ)¹
- b) Other relevant contact details (of the organisations set out in appendix G of the Ashley Rural Fire District Plan 2009-2011)²
- c) A description of the sources of water to be used in fire fighting
- d) A requirement for the provision on site of a water point of at least 30,000 litres of water
- e) Requirement for at least one vehicle with a minimum capacity of 200 litres onsite during periods of extreme fire risk
- f) Ensuring adequate protection is in place prior to undertaking any activities authorised by the consent, including any preliminary geotechnical investigations.

The Department of Conservation and FENZ was consulted in the development of the FMP as required by Condition 120 of RC260077. The FMP was provided to FENZ.

The detailed response and evacuation procedures to be followed in the event of a fire are included in the Contractors Emergency Response Plan (ERP).

1.2 Site Access

Site access is via Mt Cass Road approximately 2.5 km beyond the turn off to the Kate Valley landfill. Alternative access to the ridge is via Symonds Road and farm tracks across Mt Cass Station and Dovedale Farm.

¹ The New Zealand Fire Service, the National Rural Fire Authority, and the rural fire districts and territorial authorities including Ashley Rural Fire Authority amalgamated to form Fire and Emergency New Zealand (FENZ) in 2017.

² The Ashley Rural Fire District Plan no longer exists following the formation of FENZ.

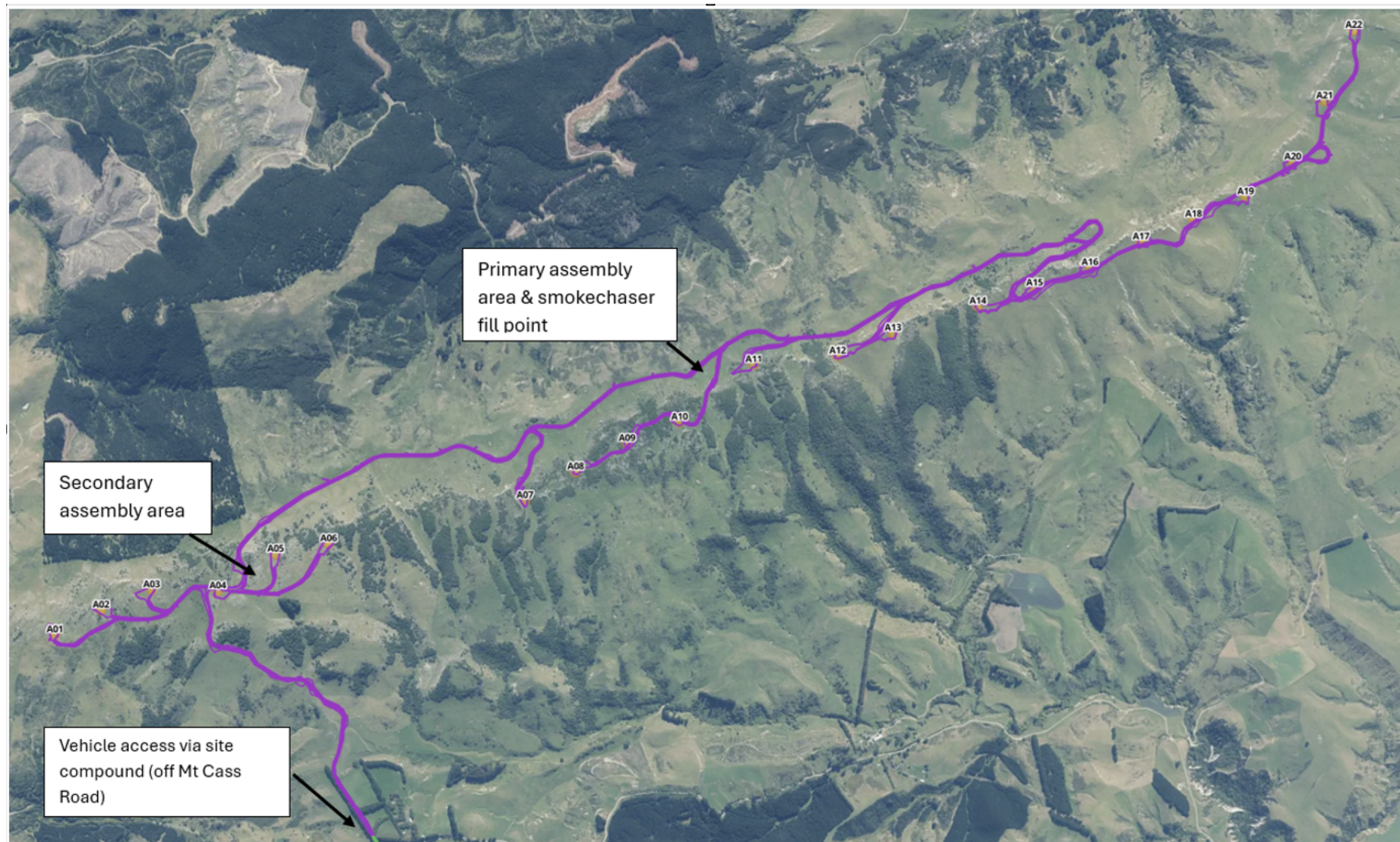
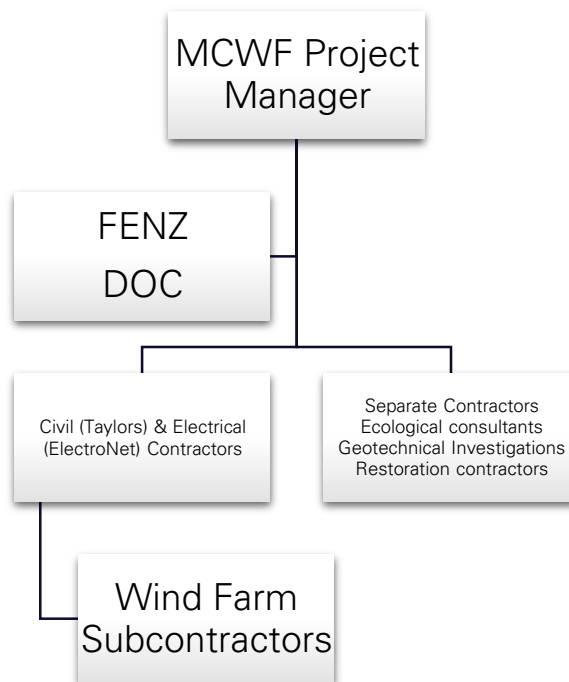


Figure 1 - Site Layout

2. Fire Management Roles and Responsibilities

The project Fire Management Organisation Chart for the construction phase is shown below



Role	Responsibilities
MCWFL Project Manager	Overall responsibility for construction activities and ensuring implementation of the FMP.
MWCFL Environmental Compliance Manger	Ensures that the FMP is current, approved and available. Issues FMP revisions to FENZ. Ensures the FMP meets relevant resource consent conditions. Manages environmental non-compliances and appropriate corrective actions.
MCWFL Health & Safety Manager	Ensures all contractor & subcontractor staff are inducted and trained in site fire control procedures. Reviews and audits Contractor Standard Operating Procedures (SOPs). Manages safety non-compliances and appropriate corrective actions.
FENZ	Lead agency for wildfire events. Coordinate with other agencies in an emergency (Police, Hurunui District Council, DOC, Landowners).

	Provide support if requested for structure fires, hazardous substance spills or vehicle accidents. Ensures local fire response teams hold information on access and water source locations and are familiar with the site. Issues Fire Permits as required.
Taylor's Site Manager	Review fire risk information during the fire season. Manage activities as appropriate during high fire risk conditions. Provide training to staff.
Contractors	Develop SOPs for tasks with a fire risk. Follow the requirements of the FMP, ERP and relevant SOPs. Ensure all contractors are inducted to site.

3. Risk Identification

A fire on the wind farm is of significant risk due to the potential for high levels of fuel from dry grass, high value vegetation in the area, and risk to personnel and property that a fire in the area would pose. Other fuel sources on site include vehicles, plastic pipe, diesel and oil for power transformers.

Potential ignition sources for a fire include the following:

- Faulty equipment, causing sparks, arcing or open flame
- Hot Works, (Gas Cutting, Angle Grinding, Welding)
- Combustion Engines (hot exhausts)
- Cigarettes and open cooking flames / BBQ's
- Members of the Public
- Lightning strike

4. Minimisation Procedures General

Due to the nature of works and site, it is impossible to remove all fuel and all potential ignition sources. Key aspects to minimise the risk of fire include minimising fuel on the site where possible and separating the works from any remaining fuel as much as practical.

The following plan provides risk mitigation measures for fire, including work processes and emergency readiness.

The ERP details the procedures to be followed in a fire event.

Key site rules include:

- No fires are to be lit or stoves are to be used on site.
- No smoking outside of designated smoking areas located at lunch rooms.

- All vehicles are to be equipped with a fire extinguisher.
- Hot works permits are required for all hot works on site.

5. Fire Danger Assessment

During the fire season the Site Manager will review the Fire Danger information as provided by FENZ as well as any local information including site specific conditions and assessments by the wind farm landowners or Kate Valley Landfill operators.

Fire Danger assessment for the site can be viewed on the fireweather.niwa.co.nz website for the Salt Water Creek Weather Station. The fire rating is shown for General, Forestry, Powerline, and Hotworks. Fire seasons can also be viewed on the FENZ website.

Current and forecasted weather will be monitored and tasks posing a fire risk will be managed as practicable to minimise the risk.

Appendix B sets out appropriate mitigation measures for key activities under each fire danger classification.

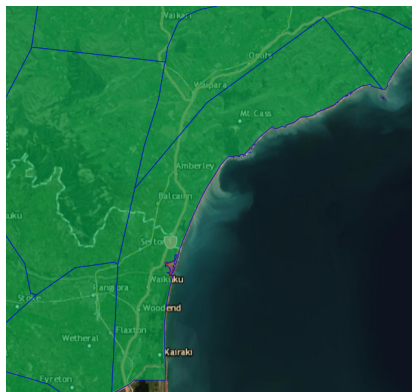


Figure 2 - NZ fire danger class for Salt Water Creek, North Canterbury (Example)

6. Risk Minimisation Procedures - Construction

6.1 Mitigation

The following will take place to minimise the possibility of a fire:

Hot Works

- Hot Works Permit required for all hot works – refer Appendix B for required controls.
- Where possible, hot works involving direct spark or flame tasks will be done early morning/late in the day, or during foggy days/high humidity. Do not undertake hot work outdoors during prohibited fire seasons unless a FENZ fire permit.
- Hot Works Permits for all high fire risk work with fire permits obtained from FENZ as necessary.
- Wet down the area you are working in and have firefighting equipment handy if the conditions are dry.
- Carry appropriate fire extinguishers, shovels, or knapsack sprayers.

- 30 minutes after you have finished the hot work, do a final check for any hot spots that might cause a fire.

General

- Stop using welders, chainsaws, slashers, and some tractor operations on extreme fire danger days.
- No smoking except in designated locations.
- No gas cookers on site except in locations authorised by the Project Manager.
- Fire extinguishers in all vehicles and site buildings.
- Vehicle use restricted to formed roads when fire risk exceeds 'High' unless vehicles are equipped to eliminate spark hazard.
- Review FENZ information at least daily during summer and/or dry conditions.
- Store petrol, diesel fuels and chemicals in clearly labelled approved containers and in single-purpose locations away from other buildings.

6.2 Maintaining Machinery

- Check all machinery is free of mechanical defects that could start a fire and has approved exhaust systems and spark arresters.
- Pay special attention to checking your machinery's bearings and moving parts.
- Clean all machinery regularly to ensure belly pans and spaces around motors are free of oil, dust, grease, birds' nests, grass and straw.

6.3 Equipment

The following fire equipment is to be onsite for the duration of the construction operation:

- A primary water filling point located at the site compound. This will have 30,000 litres of storage, in addition to that necessary for farm or construction operations.
- A second water point comprising a water tank of at least 10,000 litres will be located at the substation site. This fill point will be suitable for refilling of the 'smoke chaser' units.
- Water tanks will be fitted with a 100mm British Roundthread coupling to ensure access for fire fighting vehicles.
- "Smoke chaser" unit (typically a 4WD flatbed truck/ute) equipped with up to 400 litres of water storage a pump and micro-droplet delivery system. The smoke chaser unit will be the primary tool for grass and debris fire suppression should such events occur.
- High volume filling pump complete with hoses.
- Hand tools including shovels, mattocks and knapsack sprayers.
- Vehicle/machinery fire extinguishers (mandatory on all site equipment).
- Personal Protective Equipment (PPE)
- Weather recording equipment

For tanker filling requirements the nearest hard-drafting location is in Omihi Stream or the Waipara River (accessed from Mt Cass Road adjacent to the Omihi Stream Bridge).

For extended helicopter operations several water points exist in the Omihi Forest block to the north of the ridge.

The following water sources are available:

1. 30,000 L tank farm at the site compound
2. Tirimoana dam in Kate Valley Landfill
3. The sea

6.4 Training – On-site Personnel

The following training of on-site personnel will be provided:

- Fire prevention / control measures.
- Fire equipment familiarisation and operation.
- Emergency Response Plan.

Fire extinguisher training will be undertaken by plant operators.

7. Emergency Response

The ERP contains the process for all responses in the case of emergencies. The below is the outline of the fire emergency response.

7.1 Standard Immediate Actions

The following is the Standard Immediate Actions in the order that they should be carried out:

- Check your own safety.
- Raise the alarm.
- Make the area of the emergency safe if possible – put out the fire if possible, never put yourself in harm's way.
- Senior person at the scene takes control until someone more qualified turns up on site and takes control.
 - Senior worker accounts for all workers using sign in book and records that this has been done.
 - Assesses the situation and decides on course of action, based on ERP including contacting emergency services as required.
 - Inform Project Manager.
 - Secures the site to ensure that public/media are unable to enter the site area using a physical barrier that is controlled – Site access controller to monitor the cordon and record access/egress.
 - Designate a guide for emergency services.

7.2 Evacuation Procedures - Immediate site evacuation to muster point

When an alarm is raised, people on the Mt Cass Wind Farm are to assemble in the Primary Assembly Area. If it is unsafe to do so they are to assemble at the Secondary Assembly Area which is shown on the emergency response layout drawing. Once there, a roll call will be carried out by the senior site worker and all workers accounted for.

All resources and expertise available on site are to be made available to FENZ. Personnel on site will comply with directions given by FENZ.

No one will leave site until they have been given direction by FENZ or the Project Manager.

No one will re-enter site until FENZ or the Project Manager has approved that it is safe to do so.

8. Appendices

Appendix	Description
A	Contact Details
B	NZ Fire Danger Classes & Codes and Recommended Risk Mitigation Measures
C	Hot Works Permit (Sample Only)

Appendix A: Contact Details

Consent Holder – Mt Cass Windfarm Ltd				
Role	Company	Name	Phone	Email
Project Director	MCWFL	Todd Voice	027 510 6281	Todd.voice@yinson.com
Construction Project Manager - Primary Contact	MCWFL	James Cameron	027 202 3621	James.cameron@yinson.com
Civil Works Manager Secondary Contact	MCWFL	Michael Carstens	027 247 1713	Michael.carstens@yinson.com
Electrical Works Manager Secondary Contact	MCWFL	Neil Wiggins	0204 133 1255	Neil.wiggins@yinson.com
Health & Safety Manager	MCWFL	Tom Hepi	022 125 1275	Tom.Hepi@yinson.com
Environmental Compliance Manager	MCWFL	Laura Burgess	021 240 3997	Laura.burgess@yinson.com
Other Agencies				
FENZ non-urgent	FENZ	Des Irving	027 275 2272	Des.irving@fireandemergency.nz
Ranger, Project Lead Community	DOC	Michelle Lambert	027 202 2566	mlambert@doc.govt.nz
Police / Fire / Ambulance			111	
Amberley Volunteer Fire Brigade			03 314 8600	21 Markham Street, Amberley
Waipara Volunteer Fire Brigade			03 314 6704	94 Glenmark Drive, Waipara

Appendix B: NZ Fire Danger Classes, Codes & Recommended Risk Mitigation Measures

Code (Fire Danger Class)	Green (Low) You can still carry out the work, but you need to be ready with a fire extinguisher, water, a shovel and a radio or working phone to call it in if there is a fire.	Blue (Medium) You can still carry out the work, but you need to be ready with a fire extinguisher, water, a shovel and a radio or working phone to call it in if there is a fire.	Yellow (High) You can still carry out the work, but you need to be ready with a fire extinguisher, water, a shovel and a radio or working phone to call it in if there is a fire.	Orange (Very High) Schedule your jobs before 10:00am or after 6:00pm	Red (Extreme) Only essential work should be carried out and only before 10:00am or after 6:00pm
Activity	Mitigation Measures	Mitigation Measures	Mitigation Measures	Mitigation Measures	Mitigation Measures
Welding/gas cutting/abrasive wheel cutting	• Work only on bare earth. • Have a fire extinguisher/minimum of 20 litres of water, along with an appropriate method of applying that water, within 5 metres of the work area. • Patrol for 30 minutes after completion.	• Work only on bare earth. • Have a fire extinguisher/minimum of 20 litres of water, along with an appropriate method of applying that water, within 5 metres of the work area. • Patrol for 30 minutes after completion.	• No Hot Work unless on a 20 metre radius of bare ground. • Have a fire extinguisher/minimum of 20 litres of water, along with an appropriate method of applying that water, within 5 metres of the work area. • Patrol for 30 minutes after completion.	• No Hot Work unless on a 20 metre radius of bare ground. • Have a fire extinguisher/minimum of 20 litres of water, along with an appropriate method of applying that water, within 5 metres of the work area. • Patrol for 30 minutes after completion.	• Consider stopping all Hot Works for a defined period unless a smoke chaser plus crew can be located nearby, OR • Work before 1000 hours and after 1600 hours; OR wet the area before and after the Hot Works; maintain 1000 litres of water plus pump on site for two hours following the final wet-down. • Maintain observation presence for two hours afterwards.
Inspections & maintenance requirements		• Check machinery for debris build up near hot working parts such as belly pans and radiators. • Check engine bay hydraulic hoses for leaks.	• Check machinery for debris build up near hot working parts such as belly pans and radiators. • Check engine bay hydraulic hoses for leaks.	• Daily - Assess daily weather at 1300 hours by forest to determine need for elevation of readiness level. • Weekly inspection of all fire equipment (including extinguishers) • Regular cleaning for all machinery.	• Daily - Assess daily weather at 1300 hours by forest to determine need for elevation of readiness level. • Weekly inspection of all fire equipment (including extinguishers). • Regular cleaning for all machinery.
Fire starts		Notify 111 of any fire start regardless of size.	Notify 111 of any fire start regardless of size.	Notify 111 of any fire start regardless of size.	Notify 111 of any fire start regardless of size.
Emergency planning		• Notify FENZ of any road closures or weekend work. • Inform the workforce about Code Blue requirements and preparation for future elevation to Code Yellow at tailgate meetings.	• Notify FENZ of any road closures or weekend work • Inform the workforce at tailgate meetings about Code Yellow requirements. • Escape plans: Consider covering in tailgate meetings.	• Inform the workforce about Code Orange requirements and preparation for future elevation to Code Red at tailgate meetings. • Consider covering in tailgate meetings: Escape plans, initial response actions. • Identify suitable water points (for ground and helicopter) around work areas.	• Inform the workforce about Code Red requirements at tailgate meetings. • Consider covering in tailgate meetings: Escape plans, initial response actions. • Identify suitable water points (for ground and helicopter) around work areas and maintain as appropriate. • Patrol sites for at least one hour after machine shutdown. • Consider having a 3-person quick response crew with smoke chaser based at a central location. • Liaise with FENZ to determine FENZ initial response plans in case of fire.
Machines				• Vehicle use restricted to formed roads when fire risk exceeds ‘High’ unless vehicles are equipped to eliminate spark hazard.	• Vehicle use restricted to formed roads when fire risk exceeds ‘High’ unless vehicles are equipped to eliminate spark hazard .

8	PERMIT ISSUE: All precautions in section 5 have been made to ensure the safety of those working under this permit. All the conditions on this permit have been discussed with the permit acceptor & I authorise work to proceed. All hot work permits are Valid for 1 Day.
Authorised Issuer:..... Signature:	
9	PERMIT ACCEPTANCE: All Work Crew members involved in the hot work confirms & accepts that conditions stated in this work permit & any associated procedures will be strictly adhered to & all persons are aware of all conditions relating to the scope of the hot work.
Name: Signature: Name: Signature:	
Name: Signature: Name: Signature:	
Name: Signature: Name: Signature:	
10	PERMIT CLOSURE: Accepts and confirms completion as above and verifies permit has been returned and signed off by Acceptor. Precautions recorded in section 5 have been removed and the area has been inspected and left in a safe condition. Site has been Patrol for 30 minutes after completion
Authorised Issuer:..... Signature:	