

Fire Mitigation Guidance – National Wilding Conifer Control Programme

Use this information as a guide for mitigating fire risk in times when the fire danger level may be High - Extreme.

Planning Procedures

Project/MU Managers

- Provide all relevant fire risk information in operational documents including (but not limited to):
 - Nearest Fire Weather Station
 - Entry/ exist routes
 - Current fire risk



Contract crew supervisor

- Review fire weather forecast before the start of the week at <https://fireweather.niwa.co.nz/> and decide on an appropriate control plan.
- Relay to crew leaders before work commences.

Equipment recommended

- 1x 1kg Dry Powder fire extinguisher carried in all vehicles and an extra 4kg carried on each side by side/UTV
- Spark arrestors fitted to all vehicles (excluding turbo's)
- Backpack pumps or dedicated knapsacks filled with water kept in vicinity.
- 1x shovel/rake assigned to each vehicle.
- Additional 1x 300g dry powder fire extinguisher per chainsaw crew to be carried onsite when fire risk is Yellow or Higher.
- Optional: An extra vehicle (UTV or truck) could be kept on site as fire tender with a clean spray tank full of water.

Daily procedures- All fire Levels

The following steps need to be taken when undertaking wilding control.

- Review Fire Risk Index for Hot Work and Spark Hazardous at <https://fireweather.niwa.co.nz/>
- Review other indicators that may increase Fire Risk such as:
 - Steep Slopes (20degrees or more)
 - High fuel loads (especially dry fine fuels from previous operations, understory etc).
 - Topography aspects i.e. North and/or west aspects may be hotter and drier, especially later in the day
- Re-assess Fire Risk levels with associated Indicators to give a site-specific Risk Index. Further information can be found at <https://portal.fireandemergency.nz/notices-news-and-events/news/understanding-the-fire-weather-index-system-presentation-available-to-view/>
- Undertake Daily toolbox/tailgate, discussion should include:

- Fire danger of site being worked on
 - Fire weather prediction for the day
 - Escape routes e.g. shingle screes, large rocks, bare dirt, generally downhill
Evacuation point/s
 - Communication plan if fire starts
- Plan your day to minimise risk, e.g. start early and use chainsaws until mid-morning, sprayers or hand tools from then on.
 - Ensure all crew members have the appropriate fire equipment and tools depending on the fire risk level.
 - Increase maintenance of chainsaws and equipment to minimise debris build-up.
 - Check under vehicles after having driven over longer vegetation to ensure that there is no material stuck under the chassis. When parking, physically check that there is no vegetation in contact with exhaust.
 - Communicate with Project Manager on any changes to the fire risk.

Additional Procedures- Level High (Yellow) and Above

- Crew leaders should record half-hourly weather readings using a Kestrel (or similar) to monitor for the guidelines and limits mentioned below.
- Vehicles should be parked on bare or green sites and facing escape route/evacuation point with keys left in ignition (where theft risk is deemed low).
- All sites to have two escape routes identified during the pre-planning/ tailgate meeting
- Chainsaw Operations- specific amendments:
 - Cut trees higher than usual to avoid rock strikes and dry grass.
 - Chainsaws not to be placed on dry grassy ground at any time during elevated fire danger.
 - Additional 1x 300g dry powder fire extinguisher to be carried to site with each chainsaw operating crew.
- Check the work area at the end of each day for a minimum of 30mins once chainsaw operating has ceased for any delayed ignition caused from operations.
- Recommend that crews wear fire resistant clothing (i.e., Wool or cotton).

Additional Procedures- Level Very High (Orange) and Above

- All Scrub-bar operations to cease.
- Chainsaw operations in low-risk areas only.

Additional Procedures- Extreme (Red)

- All chainsaw operations to cease.
- No driving or parking over vegetation.

Guidelines and upper limits to watch for

Use the information below to assess whether it is safe to use chainsaws at any point during the day.

The first step is to check the NIWA fire weather website the night before or morning of commencing operations, <https://fireweather.niwa.co.nz/> Hot work and Spark Hazardous. Find the appropriate weather station for your location. If the fire danger is predicted to be high – very high, then you will need to use a kestrel (or other handheld weather device) to monitor several environmental conditions. These conditions are as follows:

<i>Relative humidity (RH)</i>	35% and below
<i>Wind Speed</i>	Above 25kmph (average), if in very high or extreme fire danger
<i>Crossover</i>	When the relative humidity becomes lower than the temperature. This does not happen often but when it does can lead to extreme fire risk and behavior.

If one of these limits is reached throughout the day, then chainsaw work should cease, or you should move to a new site with a lower fire danger.

In the event of a fire

1. Ensure safety of everyone at the site
2. Attempt to put it out, but only if small, working around the edges with a fire extinguisher or spray gun/nozzle. Note spray tanks must have clean water as herbicide/herbicide residues may be flammable.
3. If fire suppression is successful under high – extreme conditions, notify MU manager and stop chainsaw work for the day or until conditions change. MU manager to notify FENZ.
4. If fire suppression fails, make radio calls to crew members to let them know the situation and to begin evacuation.
5. Use your escape routes and get to designated evacuation point.
6. Call 111. Let them know location, what is burning and a quick brief on weather at site.

