BEAM
MITCHELL ENVIRONMENT GROUP INC.

a thriving community that is locally active for a healthy environment

P. c/ P.O. Box 767 Seymour Vic 3661

26.4.24

Chris Hardman
Chief Fire Officer
Forest and Fire Operations
DEECA

Dear Mr Hardman,

Re: Planned Burns in Tallarook Forest

I write on behalf of BEAM Mitchell Environment Group Inc. to request that Forest Fire Management Victoria (FFMV) cancel any current and future plans to conduct fuel reduction burns in the Tallarook Forest. We have been conducting research on fire history, ecological changes, and the impact of past planned burns in the Tallarook Forest, and our findings are that that FFMV's so-called "fuel load reduction burns" either create no significant benefit in reducing fuel load, or else increase the fuel load. I use the term fuel load as defined in the *DEECA Overall Fuel Hazard Guide*.

We are particularly concerned about:

- the current burn on Magazine Track (HR-MUR-BRD-0005, started 21.4.24)
- the burn on Gravel Pit Rd in 2021 (HR-MUR-BRD-0027, started 2.4.21)
- the burn on East Falls Rd in 2016 (3MBD0010, started 29.3.16)

Our evidence is that the fuel reduction burn program:

- is sporadic in its intended effect of reducing flammable elements in the forest
- where effective, likely only reduces fuel loads for approximately two years
- stimulates germination of flammable understorey species - especially Common Cassinia (*C. aculeata* and silver wattle (*A. dealbata*) - such that the size and extent and density of these species recruit to greater levels than they were before the burn
- stimulates germination of eucalypts, which soon become large saplings, increasing the fuel load
- is sporadic in its effect of reducing of bark fine fuel on the stringybarks in the burn areas
- increases the dryness of forest litter and ground cover, thus increasing flammability

- shifts the suite of species in a forest area towards those that prefer and require regular burning, thus increasing the risk and severity of bushfires
- can generate wild fires when the flame escapes the burns boundary area

The “fuel-reduction” planned burns in the Tallarook State Forest over 2016-2021 appear to have to reduced Bark Fine Fuel hazard ratings and temporarily reduced Elevated Fine Fuel, Combined Surface and Near Surface Fuel. However, from around two years after fire, this has generally been followed by a significant increase in Elevated Fine Fuel and Near Surface Fine Fuel, which raises the Overall Fuel hazard to similar or greater levels than pre-fire, despite the fact that Bark Fine Fuel reduction remains reduced for six years or more. The evidence shows that regular “fuel-reduction” planned burns are having the effect of perpetuating *Very High* and *Extreme* fuel load levels in the Tallarook Forest.

We therefore argue that, as a whole, fuel reduction burns in the Tallarook Forest are at best ineffective in terms of long term safety for our community, and at worst increase the risks of bushfires. Either way, they are a waste of time and money.

We have found that the principle flammable understorey species naturally senesce in the forest within 25-40 years, if left undisturbed, and as the eucalypt cohort in a forest area matures. We have found that there are large areas of the Tallarook Forest, which have not experienced either bushfire or planned burns for 50 to 80 years, and have - as a consequence - low levels of understorey fuel. Where such a low-flammable forest area has experienced a planned burn (3MBD0010: 2016; HR-MUR-BRD-0027: 2021), there has since been a subsequent mass recruitment of Common Cassinia, effectively generating a major understorey fuel load that barely existed prior to the fire.

BEAM Mitchell Environment Group Inc. has commissioned fuel load assessments in a range of areas in the Tallarook Forest that have been burnt in recent years, and also in areas of the forest that are scheduled for burns over the next three years as per the current Joint Fuel Management Program. Ecologist Karl Just was engaged by BEAM to conduct extensive fuel load assessments using the DEECA *Overall Fuel Hazard Guide’s* methodology for these assessments.

Our concerns are further that FFMV:

- relies almost exclusively on desktop assessment of fire risk, with a primary assumption that the longer a forest area is unburnt, then the greater the fuel load, and that this load maximises and stabilises at about 50 years post-disturbance. We find this assumption not to be grounded in scientific evidence, nor ecological principles.
- conducts inadequate or no on-the-ground documented fuel load assessments prior to planning where burns will take place
- conducts no documented post-burn assessments of fuel load changes, and ecological changes, in the years after a burn
- removes a large number of old trees from forest areas, prior to burns, on the basis that these are regarded as hazardous. Their hazard status would be much less if there were no burns conducted.

The generic concept of “fuel load” does not take into account either the variable flammability of different understorey species, or the lower fire risk that arises from greater moisture levels in long undisturbed forest areas.

We recognise the importance of taking action to reduce the risk of fires occurring, spreading extensively and having high severity. We propose the following alternative strategy:

- conduct ecologically-based on-the-ground fire risk assessments
- protect long-unburnt forest from planned burns, due to these being the lowest-risk fire areas
- in the remoter bulk of the forest, allow the flammable understorey species to senesce
- designate areas of the forest to be “fire-treatment free” zones, and plan to increase the overall “fire-treatment free” zones in the future as the extent of forest area where understorey species have senesced expands
- minimise the expansion of flammable understorey by a programme of manual removal of newly recruited individuals plants of flammable species on the margins of their current ranges
- reduce flammable understorey species near assets, through manual thinning rather than through burning, as burning close to houses can negatively affect residents and would pose a high risk to assets if a fire escapes. Reducing fuel on the forest edge where it is closer to houses would be far more effective at reducing risk to local communities
- engage forest ecologists to train fuel-reduction staff in recognising target species and understanding ecological succession processes in the forest
- avoid use of motorised vehicles in thinning programs. Hand thinning activities, such as use of chainsaws or hand-held loppers to manually cut down understorey species, are preferable to thinning by the use of vehicular machinery, which spread disease, compact the soil, and cause collateral damage to understorey vegetation.
- increase FFMV’s ability to rapidly detect and respond effectively to bushfires while they are still small. We note that a sequence of spot fires were put out in the last few years in the Tallarook Forest (FID 219654, Trawool Reservoir, 19.12.17; FID 233130, Willow Track, started 20.12.17; FID 233558, Loop Trk #2, started 21.12.17)

These activities have the additional benefit of being able to be carried out across the year, and not being reliant on the ever-shrinking window of suitable weather in autumn and spring to conduct planned burns.

We would welcome the opportunity to have a meeting in the Tallarook Forest with FFMV planning staff to discuss these issues and alternatives in more detail. I would also advise you that we are bringing these matters to public attention in our community via the media and social media.

Yours sincerely,

Paul Macgregor
Forest Campaigns
BEAM Mitchell Environment Group Inc.
cc. The Hon Steve Dimopoulos, Minister for Environment